



Universiteit
Leiden
The Netherlands

Constructing communities : clustered neighbourhood settlements of the Central Anatolian Neolithic ca. 8500-5500 Cal. BC

Düring, B.S.

Citation

Düring, B. S. (2006, March 16). *Constructing communities : clustered neighbourhood settlements of the Central Anatolian Neolithic ca. 8500-5500 Cal. BC*. Nederlands Instituut voor het Nabije Oosten, Leiden. Retrieved from <https://hdl.handle.net/1887/4340>

Version: Not Applicable (or Unknown)

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/4340>

Note: To cite this publication please use the final published version (if applicable).

Bleda S. Düring CONSTRUCTING COMMUNITIES

PIHANS CV

CONSTRUCTING COMMUNITIES

CLUSTERED NEIGHBOURHOOD SETTLEMENTS
OF THE CENTRAL ANATOLIAN NEOLITHIC
CA. 8500-5500 CAL. BC

by

BLEDA S. DÜRING



NEDERLANDS INSTITUUT VOOR HET NABIJE OOSTEN
2006

CONSTRUCTING COMMUNITIES

CLUSTERED NEIGHBOURHOOD SETTLEMENTS
OF THE CENTRAL ANATOLIAN NEOLITHIC
CA. 8500-5500 CAL. BC

Proefschrift

ter verkrijging van

de graad van Doctor aan de Universiteit Leiden,

op gezag van de Rector Magnificus Dr.D.D.Breimer,

hoogleraar in de faculteit der Wiskunde en

Natuurwetenschappen en die der Geneeskunde,

volgens besluit van het College voor Promoties

te verdedigen op donderdag 16 maart 2006

klokke 15:15 uur

door

Bleda Serge Düring

geboren te Istanbul

in 1976

Promotiecommissie

Promotor: Prof. dr. J.L. Bintliff

Copromotor: Dr. D.J.W. Meijer

Referent: Prof. dr. I.R. Hodder

Overige leden: Prof. dr. P.M.M.G. Akkermans

Prof. dr. R.H.A. Corbey

Dr. P. van de Velde

UITGAVEN VAN HET
NEDERLANDS INSTITUUT VOOR HET NABIJE OOSTEN TE LEIDEN

voorheen Publications de l'Institut historique-archéologique néerlandais de Stamboul
sous la direction de
Machteld J. MELLINK,
J.J. ROODENBERG, K. van der TOORN et K.R. VEENHOF

CV

CONSTRUCTING COMMUNITIES

CLUSTERED NEIGHBOURHOOD SETTLEMENTS
OF THE CENTRAL ANATOLIAN NEOLITHIC
CA. 8500-5500 CAL. BC

CONSTRUCTING COMMUNITIES

CLUSTERED NEIGHBOURHOOD SETTLEMENTS
OF THE CENTRAL ANATOLIAN NEOLITHIC
CA. 8500-5500 CAL. BC

by

BLEDA S. DÜRING

NEDERLANDS INSTITUUT VOOR HET NABIJE OOSTEN
2006

Copyright 2006 by
Nederlands Instituut voor het Nabije Oosten
Witte Singel 25
Postbus 9515
2300 RA Leiden, Nederland
ninopublications@let.leidenuniv.nl

*All rights reserved, including the rights to translate or
to reproduce this book or parts thereof in any form*

Bleda S. Düring

Constructing Communities, Clustered Neighbourhood Settlements of the Central Anatolian Neolithic ca.
8500-5500 Cal. BC.

Uitgave: Nederlands Instituut voor het Nabije Oosten te Leiden (voorheen Uitgave van het Nederlands
Historisch-Archeologisch Instituut te Istanbul. ISSN 0926-9568; 105).

ISBN 90-6258-316-4

Printed in Belgium

CONTENTS

LIST OF FIGURES	xi
LIST OF TABLES	xiv
ACKNOWLEDGEMENTS	xv

INTRODUCTION	1

CHAPTER 1: THE CENTRAL ANATOLIAN NEOLITHIC	4

1.1.1 LANDSCAPES AND CLIMATES OF CENTRAL ANATOLIA	4
1.1.2 CLIMATE AND VEGETATION OF CENTRAL ANATOLIA IN THE NEOLITHIC	6
1.2.1 THE RESEARCH HISTORY OF THE CENTRAL ANATOLIAN NEOLITHIC	8
1.2.2 A SYNTHETIC APPROACH	11
1.3.1 THE NEOLITHIC OF CENTRAL ANATOLIA OR THE CENTRAL ANATOLIAN NEOLITHIC?	12
1.3.2 CHRONOLOGY AND TERMINOLOGY OF THE CENTRAL ANATOLIAN NEOLITHIC	16
1.3.3 SKETCH OF THE ACERAMIC NEOLITHIC OF CENTRAL ANATOLIA	18
1.3.4 SKETCH OF THE CERAMIC NEOLITHIC OF CENTRAL ANATOLIA	20
1.3.5 SKETCH OF THE EARLY CHALCOLITHIC OF CENTRAL ANATOLIA	21
1.4.1 THE CLUSTERED NEIGHBOURHOOD SETTLEMENTS	23
OF THE CENTRAL ANATOLIAN NEOLITHIC	

CHAPTER 2: SETTLEMENTS, STRUCTURES AND SOCIETY	26

2.1.1 CONCEPTUALISING MATERIAL CULTURE	26
2.2.1 CONCEPTUALISING SETTLEMENTS	28
2.3.1 ARCHAEOLOGICAL APPROACHES TO SETTLEMENTS	29
2.3.2 THE CONFIGURATION OF SETTLEMENTS	31
2.3.3 THE CONTEXTUAL ANALYSIS OF SETTLEMENTS	33
2.3.4 THE TEMPORAL DIMENSION OF SETTLEMENTS	36
2.4.1 SETTLEMENTS AND SOCIETY	38
2.4.2 THE CONCEPT OF SOCIETY	38
2.4.3 HOUSEHOLDS	39
2.4.4 LINEAGE HOUSES	43
2.4.5 COMMUNAL BUILDINGS	45
2.4.6 CLUSTERED NEIGHBOURHOODS	46
2.4.7 LOCAL COMMUNITIES	48
2.4.8 MICROCOSMOS IN THE BUILT ENVIRONMENT	48

CHAPTER 3: MATERIAL ISSUES OF LOAM BUILDINGS	52

3.1.1 REASONING BY ANALOGY	52
3.1.2 STUDIES OF VERNACULAR LOAM BUILDINGS	53
3.2.1 REGIONAL VARIABILITY IN BUILDING TRADITIONS	55
3.2.2 RELATING BUILDING FUNCTIONS AND TECHNOLOGY	57
3.3.1 BUILDING MATERIALS IN THE CENTRAL ANATOLIAN NEOLITHIC	58
3.3.2 LOAM SLABS	58
3.3.3 LOAM BRICKS	60
3.3.4 STONE	60
3.3.5 MORTAR	60
3.3.6 PLASTER	61
3.3.7 TIMBER	61
3.4.1 BUILDINGS IN MOTION	63
3.4.2 CLOSURE AND FOUNDATIONS	64
3.4.3 WALL CONSTRUCTION	65
3.4.4 WALL AND FLOOR PLASTER	66
3.4.5 ROOF CONSTRUCTION AND MAINTENANCE	67
3.5.1 SETTLEMENTS IN MOTION	69

CHAPTER 4: THE AŞIKLI HÖYÜK SETTLEMENT	72
4.1.1 GEOGRAPHICAL SETTING	72
4.1.2 RESEARCH HISTORY	72
4.1.3 STRATIGRAPHY AND CHRONOLOGY	73
4.1.4 ARTEFACTS AND ECOFACTS	75
4.2.1 THE AŞIKLI HÖYÜK SETTLEMENT	76
4.2.2 THE LOAM BUILDINGS	77
4.3.1 ROOMS OF LOAM BUILDINGS	78
4.3.2 BUILDING UNITS	81
4.3.3 SINGLE ROOM UNITS	81
4.3.4 MULTIPLE ROOM UNITS	82
4.4.1 THE FEATURES IN THE LOAM BUILDINGS	83
4.4.2 HEARTHES	84
4.4.3 SUB-FLOOR BURIALS	86
4.5.1 DEFINING DOMESTIC UNITS	89
4.6.1 BUILDINGS IN DIACHRONIC PERSPECTIVE	93
4.7.1 NEIGHBOURHOODS	97
4.8.1 ESTIMATING THE AŞIKLI HÖYÜK POPULATION	101
4.9.1 THE BUILDING COMPLEXES	101
4.10.1 THE SPATIAL CONFIGURATION OF THE AŞIKLI HÖYÜK SETTLEMENT	107
4.10.2 ACCESS PATTERNS AT AŞIKLI HÖYÜK	107
4.11.1 SOCIAL DIMENSIONS IN THE SETTLEMENT OF AŞIKLI HÖYÜK	111
CHAPTER 5: THE CANHASAN III SETTLEMENT	114
5.1.1 GEOGRAPHICAL SETTING	114
5.1.2 RESEARCH HISTORY	114
5.1.3 STRATIGRAPHY AND CHRONOLOGY	115
5.1.4 ARTEFACTS AND ECOFACTS	115
5.2.1 THE CANHASAN III SETTLEMENT	116
5.2.2 THE LOAM BUILDINGS OF CANHASAN III	117
5.3.1 ROOMS OF LOAM BUILDINGS	118
5.3.2 DEFINING BUILDING UNITS	119
5.4.1 SPATIAL DISTRIBUTIONS	121
5.5.1 DEFINING DOMESTIC UNITS	122
5.6.1 NEIGHBOURHOOD CLUSTERS	123
5.7.1 ESTIMATING THE CANHASAN III POPULATION	124
5.8.1 THE SPATIAL CONFIGURATION OF THE CANHASAN III SETTLEMENT	125
5.8.2 ACCESS PATTERNS AT CANHASAN III	126
5.8.3 MOVING THROUGH THE CANHASAN III SETTLEMENT	127
5.9.1 SOCIAL DIMENSIONS IN THE CANHASAN III SETTLEMENT	127
CHAPTER 6: THE ÇATALHÖYÜK SETTLEMENT	130
6.1.1 GEOGRAPHICAL SETTING	130
6.1.2 THE LOCATION OF ÇATALHÖYÜK	133
6.1.3 ÇATALHÖYÜK AND OTHER SETTLEMENTS	134
6.1.4 RESEARCH HISTORY	135
6.1.5 EXCAVATION METHODS	136
6.1.6 REFLEXIVE METHOD AT ÇATALHÖYÜK	138
6.1.7 EXCAVATION AREAS AND BUILDING DESIGNATIONS	140
6.1.8 STRATIGRAPHY	142
6.1.9 ABSOLUTE DATING AT ÇATALHÖYÜK	145
6.1.10 THE ÇATALHÖYÜK DATABASE	147
6.1.11 CHIPPED STONE INDUSTRIES	154
6.1.12 POTTERY	154
6.1.13 FIGURINES	155

6.1.14	OTHER ARTEFACTS	156
6.1.15	BOTANICAL REMAINS	157
6.1.16	FAUNAL REMAINS	158
6.2.1	THE ÇATALHÖYÜK SETTLEMENT	159
6.2.2	THE LOAM BUILDINGS	160
6.2.3	FOUNDING A ÇATALHÖYÜK BUILDING	160
6.2.4	CONSTRUCTING A ÇATALHÖYÜK BUILDING	162
6.2.5	BUILDINGS IN MOTION	164
6.2.6	THE USELIFE OF BUILDINGS	165
6.3.1	ROOMS OF ÇATALHÖYÜK	166
6.3.2	DEFINING BUILDING UNITS AT ÇATALHÖYÜK	170
6.4.1	SPATIAL DISTRIBUTIONS IN BUILDINGS	174
6.4.2	THE COMPARTMENTALISATION AND ORIENTATION OF INTERIOR SPACE	176
6.4.3	SPATIAL DISTRIBUTIONS ON THE MICRO-SCALE	178
6.4.4	SPATIAL DISTRIBUTION OF FEATURES IN THE 1960S ARCHIVES	179
6.4.5	INTERIOR COMPARTMENTS, BENCHES, AND SCREEN WALLS	180
6.4.6	HEARTHES AND OVENS	184
6.4.7	STORAGE FEATURES	186
6.4.8	POSTS AND BUTTRESSES	187
6.4.9	THE ÇATALHÖYÜK IMAGERY	191
6.4.10	WALL PAINTINGS	192
6.4.11	MOULDED FEATURES, INSTALLATIONS AND INCORPORATIONS	195
6.4.12	THE SUB-FLOOR BURIALS	201
6.5.1	INTERPRETING ÇATALHÖYÜK BUILDINGS	211
6.5.2	DEFINING DOMESTIC UNITS	211
6.5.3	THE INTERIOR CONFIGURATION OF LIVING ROOMS	214
6.5.4	BUILDING CLASSIFICATIONS	216
6.6.1	BUILDINGS IN DIACHRONIC PERSPECTIVE	218
6.7.1	NEIGHBOURHOODS	229
6.8.1	ESTIMATING THE POPULATION OF ÇATALHÖYÜK	234
6.9.1	THE SPATIAL CONFIGURATION OF THE ÇATALHÖYÜK SETTLEMENT	235
6.9.2	ACCESS PATTERNS AT ÇATALHÖYÜK	236
6.9.3	THE EXTERIOR SPACES OF THE ÇATALHÖYÜK SETTLEMENT	240
6.9.4	MOVING THROUGH THE ÇATALHÖYÜK SETTLEMENT	243
6.10.1	SOCIAL DIMENSION IN THE ÇATALHÖYÜK SETTLEMENT	245
CHAPTER 7: THE ERBABA SETTLEMENT		248
7.1.1	GEOGRAPHICAL SETTING	248
7.1.2	RESEARCH HISTORY	249
7.1.3	STRATIGRAPHY AND CHRONOLOGY	249
7.1.4	ARTEFACTS AND ECOFACTS	250
7.2.1	THE ERBABA SETTLEMENT	251
7.2.2	THE STONE BUILDINGS OF ERBABA	252
7.3.1	ROOMS OF STONE BUILDINGS	253
7.3.2	DEFINING BUILDING UNITS AT ERBABA	254
7.4.1	SPATIAL DISTRIBUTIONS AT ERBABA	255
7.5.1	DEFINING DOMESTIC UNITS	256
7.6.1	ESTIMATING THE ERBABA POPULATION	256
7.7.1	THE SPATIAL CONFIGURATION OF THE ERBABA SETTLEMENT	257
7.7.2	ACCESS PATTERNS AT ERBABA	257
7.8.1	SOCIAL DIMENSIONS IN THE ERBABA SETTLEMENT	258

CHAPTER 8: THE CANHASAN I SETTLEMENT	260
8.1.1 GEOGRAPHICAL SETTING	260
8.1.2 RESEARCH HISTORY	260
8.1.3 STRATIGRAPHY AND CHRONOLOGY	261
8.1.4 ABSOLUTE DATING AT CANHASAN I	264
8.1.5 ARTEFACTS AND ECOFACTS	264
8.2.1 THE CANHASAN I SETTLEMENT	265
8.2.2 THE CANHASAN I BUILDING TECHNOLOGIES	267
8.3.1 THE LOAM BUILDINGS OF CANHASAN I	270
8.3.2 ROOMS OF LOAM BUILDINGS IN LAYERS 2B AND 2A	273
8.3.3 BUILDING UNITS AT CANHASAN I IN LAYER 2B	274
8.4.1 SPATIAL DISTRIBUTIONS IN LAYER 2B AT CANHASAN I	275
8.5.1 DEFINING DOMESTIC UNITS	277
8.6.1 ESTIMATING THE CANHASAN I POPULATION	278
8.7.1 THE SPATIAL CONFIGURATION OF THE CANHASAN I SETTLEMENT	278
8.8.1 SOCIAL DIMENSIONS IN THE CANHASAN I SETTLEMENT	280
 CHAPTER 9: CONSTRUCTING COMMUNITIES IN THE CENTRAL ANATOLIAN NEOLITHIC	 282
9.1.1 COMMUNITY AND SOCIETY	282
9.1.2 COMMUNITY AND SOCIETY IN ARCHAEOLOGY	286
9.1.3 SOCIAL COMPLEXITY AND THE NEAR EASTERN NEOLITHIC	288
9.2.1 THE CONSTITUTION OF SOCIETY	291
9.3.1 HOUSEHOLDS IN THE CENTRAL ANATOLIAN NEOLITHIC	293
9.3.2 LINEAGE HOUSES IN THE CENTRAL ANATOLIAN NEOLITHIC	299
9.3.3 CLUSTERED NEIGHBOURHOODS IN THE CENTRAL ANATOLIAN NEOLITHIC	301
9.3.4 COMMUNAL BUILDINGS IN THE CENTRAL ANATOLIAN NEOLITHIC	303
9.3.5 LOCAL COMMUNITIES AND BEYOND IN THE CENTRAL ANATOLIAN NEOLITHIC	306
9.4.1 CONSTRUCTING COMMUNITIES IN THE CENTRAL ANATOLIAN NEOLITHIC	311
 CONCLUSION	 315
BIBLIOGRAPHY	319
SAMENVATTING	359
CURRICULUM VITAE	368

LIST OF FIGURES

All figures in this study except the cover illustration are originals, although some are based on illustrations in other publications. Medy Oberendorff (Faculty of Archaeology, Leiden University) prepared and produced the figures of this dissertation. Professors Ufuk Esin and Nur Balkan are kindly thanked for the permission for reproducing the Aşıklı Höyük plans. Dr. David French is kindly thanked for the permission for reproducing the Canhasan I and III plans. Finally, the Çatalhöyük Research Project is thanked for the permission to reproduce its plans.

- Figure 1.1 Map of Southern Central Anatolia, with the main sites discussed in this study indicated.
- Figure 1.2 Periodization of the Neolithic in the Fertile Crescent, Central Anatolia, and Western Anatolia (Abbreviations: PPNA= Pre-Pottery Neolithic A; EPPNB= Early Pre-Pottery Neolithic B; MPPNB= Middle PPNB; LPPNB= Late PPNB; PPN= Pre-Pottery Neolithic; CN= Ceramic Neolithic; ECN= Early CN; LCN= Late CN; ECh= Early Chalcolithic).
- Figure 1.3 Periodization of the Central Anatolian Neolithic (in shades of grey), and the calibrated radiocarbon ranges of the excavated sites in the region. Sites of particular importance to this study are represented in black.
- Figure 3.1 House of Haji Farasi in Dartut, Iran (based on figure 5 in Christensen 1967).
- Figure 4.1 Composite plan of Aşıklı Höyük layers 2A-C (trench 4H/G is layer 2B). Based on figures 3 and 10 in Esin and Harmankaya 1999. By kind permission of Professor Ufuk Esin.
- Figure 4.2 Interior width and length in metres of the rooms in the Aşıklı Höyük neighbourhoods (n=129).
- Figure 4.3 Interior room sizes in m² at Aşıklı Höyük (n=129).
- Figure 4.4 Internal sizes single room units in m² (n=26).
- Figure 4.5 Internal sizes in m² of multiple room units (n=23).
- Figure 4.6 Distribution of hearths (dots) over the northwestern part of the layer 2A-C settlement of Aşıklı Höyük. By kind permission of Professor Ufuk Esin.
- Figure 4.7 Distribution of burials (dots) with known find-spots in the northwestern part of the layer 2A-C settlement of Aşıklı Höyük. By kind permission of Professor Ufuk Esin.
- Figure 4.8 Interior size in m² of rooms containing hearths (n=41, mean 8.9 m²).
- Figure 4.9 Diachronic view of the building sequence in sounding 4H/G from layer 2I to layer 2B. By kind permission of Professor Ufuk Esin.
- Figure 4.10 Tentative neighbourhoods in the main excavation area of the Aşıklı Höyük layer 2A-C settlement (buildings that are clearly not in phase have been removed from the plan). By kind permission of Professor Ufuk Esin.
- Figure 4.11 Close up of building complex HV. By kind permission of Professor Ufuk Esin.
- Figure 4.12 Building complex MI and the surrounding area. By kind permission of Professor Ufuk Esin.
- Figure 4.13 Tentative access graph of Aşıklı Höyük.
- Figure 5.1 Plan of layers 1 and 2 of the Canhasan III settlement, space designations not original (based on figure 4 in French 1972). By kind permission of David French.
- Figure 5.2 Interior sizes in m² of the Canhasan III spaces (n=28).
- Figure 5.3 Interior room sizes in m² at Canhasan III (n=26, average 10.7 m²).
- Figure 5.4 Reconstructed building units at Canhasan III. By kind permission of David French.
- Figure 5.5 Interior sizes in m² of the Canhasan III building units (n=12, average 17.8 m², average excluding largest unit 7/8 16.1 m²).
- Figure 5.6 Reconstructed neighbourhood clusters of Canhasan III, open spaces in light grey. By kind permission of David French.
- Figure 5.7 Access plan for Canhasan III.

- Figure 6.1 Map of Çatalhöyük East and West (based on figure 5.1 in Pollard *et al.* 1996). By kind permission of the Çatalhöyük Research Project.
- Figure 6.2 Approximation of Mellaart's Areas at Çatalhöyük, and the Çatalhöyük Research Project South Area and South Shelter (coordinates according to Çatalhöyük Research Project coordinate system).
- Figure 6.3 Excavation Areas of the Çatalhöyük Research Project (based in part on figure 5.2 in Pollard *et al.* 1996). By kind permission of the Çatalhöyük Research Project.
- Figure 6.4 Simplified overview of calibrated radiocarbon ranges of grouped Çatalhöyük levels at the two sigma range (based in part on Cessford in prep-a). By kind permission of the Çatalhöyük Research Project.
- Figure 6.5 Combined scrape areas (North and 4040) on the northern summit of Çatalhöyük (post-Neolithic structures and disturbances in grey). By kind permission of the Çatalhöyük Research Project.
- Figure 6.6 Composite plan showing grid-referenced overlays of published plans of all levels excavated at Çatalhöyük in the 1960s except level XII (based on plans published in Mellaart 1962, 1964, 1966, and 1967).
- Figure 6.7 Interior sizes in m² of the Çatalhöyük rooms excavated in the 1960s and in the 1995 – 1999 Çatalhöyük Research Project excavations (n=383, mean 11.7 m²).
- Figure 6.8 Interior room sizes in m² at Çatalhöyük specified per room category (n=383).
- Figure 6.9 Scatter plot of interior dimensions in metres of the Çatalhöyük rooms specified per cluster of levels and for the North Area (n=383).
- Figure 6.10 Interior sizes in m² of Çatalhöyük building units (n=105).
- Figure 6.11 Interior size distribution in m² of a selection of the Çatalhöyük building units (n=97), excluding single rooms below 12 m², and multiple living room units.
- Figure 6.12 Number of rooms in a selection of the Çatalhöyük building units (n=97), excluding single room units below 12 m² in size, and multiple living room units.
- Figure 6.13 The spatial organisation of a typical Çatalhöyük living room (based on figure 11 in Mellaart 1967).
- Figure 6.14 The orientation of the Çatalhöyük compartments (n=482).
- Figure 6.15 Lengths of Çatalhöyük building compartments in metres specified per orientation (n=482).
- Figure 6.16 Plan of building VIA.30, the area in grey indicates the location of a moulding.
- Figure 6.17 The orientation of 'bench' features at Çatalhöyük (n=143).
- Figure 6.18 The orientations of hearths and ovens at Çatalhöyük (n hearths=149, n ovens=125).
- Figure 6.19 The orientation of the storage features in the living rooms at Çatalhöyük (n=73).
- Figure 6.20 The orientation of the posts and buttresses at Çatalhöyük (n=439).
- Figure 6.21 Relative percentages of posts and buttresses per building level in the South Area at Çatalhöyük.
- Figure 6.22 The orientation of wall paintings at Çatalhöyük (n=137).
- Figure 6.23 The orientation of certified moulded features and installations at Çatalhöyük (n= 56).
- Figure 6.24 Burial populations of level VIB buildings in the South Area at Çatalhöyük, rooms with over 25 burials identified with building number (n burials=258).
- Figure 6.25 Çatalhöyük level VIB rooms containing burials (n rooms= 21, n burials= 258).
- Figure 6.26 Plan of level VIB in the South Area.
- Figure 6.27 Diachronic view of the building sequence in the central part of the South Area from level X to V, continuous buildings marked with black walls, discontinuous buildings in grey. By kind permission of the Çatalhöyük Research Project.
- Figure 6.28 Overview of the development of continuous Çatalhöyük buildings in the South Area and the number of burials, mouldings, and wall paintings they contain, Çatalhöyük Research Project building designations are distinguished with an asterisk.
- Figure 6.29 Sub-floor burials in continuous Çatalhöyük buildings by level.
- Figure 6.30 An overlay of levels VI and V in Area E.
- Figure 6.31 Plan of level VIB in the South Area with bold lines indicating possible neighbourhood boundaries, and the topographical setting of the level VIB exposure indicated.
- Figure 6.32 Plan of the Neolithic buildings on the northern eminence at Çatalhöyük found with surface scraping, and including the North, BACH and 4040 Areas. Open spaces indicated in grey,

and a possible neighbourhood boundary with a bold line. By kind permission of the Çatalhöyük Research Project.

- Figure 6.33 Plan of level IV in the South Area at Çatalhöyük.
- Figure 6.34 Access plan of level VIB in the South Area at Çatalhöyük, possible neighbourhood boundaries indicated with bold lines.
- Figure 6.35 Access plan of level V in the South Area at Çatalhöyük.
- Figure 7.1 Plan of layer I at Erbaba with excavation areas, grid not original.
- Figure 7.2 Interior sizes in m² of layer I rooms at Erbaba (n=24, mean=7.0).
- Figure 7.3 Plan of the central area of layer I at Erbaba, room numbers and grid are not original.
- Figure 7.4 Access plan of layer I at Erbaba.
- Figure 8.1 Schematic Harris matrix of the layers 3, 2B and 2A buildings of Canhasan I.
- Figure 8.2 Plan of layers 2B and 2A (in grey) at Canhasan I, room designations not original. By kind permission of David French.
- Figure 8.3 The exterior and interior sizes in m² of the rooms of Aşıklı Höyük, Canhasan III, Çatalhöyük, Erbaba, and Canhasan I.
- Figure 8.4 Interior room sizes in m² of the ground floor layer 2B and 2A spaces at Canhasan I, (n=28, mean 13.9 m²).
- Figure 8.5 Interior sizes in m² of the ground floor spaces of the layer 2B building units at Canhasan I (n=9, mean 43.8 m²).
- Figure 8.6 Access plan of the ground floor spaces of layer 2B at Canhasan I.
- Figure 9.1 Interior sizes in m² of the building units of the Central Anatolian Neolithic clustered neighbourhood settlements distinguished per site (n=173, 5 buildings over 65 m² have been excluded).
- Figure 9.2 Estimated maximum populations of the clustered neighbourhood settlements of the Central Anatolian Neolithic per site.
- Figure 9.3 Estimated maximum number of clustered neighbourhoods in the Central Anatolian Neolithic settlements per site with Johnson's (1982) consensus threshold in grey.

LIST OF TABLES

Table 2.1	The space – place opposition according to Tilley (1994).
Table 2.2	Household forms in relations to the variables of residence and economic pooling.
Table 3.1	Four modes of analogical reasoning used in ethnoarchaeology.
Table 4.1	The stratigraphic levels of Aşıklı Höyük and their estimated absolute dates.
Table 4.2	Buildings and general areas in which the 24 pinpointed burials of Aşıklı Höyük were found.
Table 4.3	Categorisation of buildings according to Bıçakçı and Özbaşaran (in Esin <i>et al.</i> 1991) and in this study.
Table 4.4	The sizes in m ² of the rooms and building units at Aşıklı Höyük.
Table 4.5	Population estimates of Aşıklı Höyük building units using three formulae that relate roofed floor area to the number of inhabitants.
Table 4.6	Characteristics of the tentative neighbourhoods of Aşıklı Höyük (incompletely excavated and/or preserved).
Table 4.7	The dimensions of the building complexes of Aşıklı Höyük.
Table 4.8	Estimated size of the postulated gatherings in Aşıklı Höyük monumental courts (A= standing, B= seated in circular arrangement).
Table 5.1	Population estimates of Canhasan III building units using three formulae that relate roofed floor area to the number of inhabitants.
Table 5.2	Characteristics of the tentative neighbourhoods of Canhasan III (incompletely excavated and/or preserved).
Table 6.1	Concordance of the changing building designations in the five major Mellaart publications on Çatalhöyük (# = not documented).
Table 6.2	Occurrence of wall painting motifs in relation to the levels at Çatalhöyük.
Table 6.3	Occurrence of the classes of moulded features and installations in relation to the levels in the South Area at Çatalhöyük.
Table 6.4	Minimum total number of skeletons excavated in the 1960s according to Angel's and Ferembach's notes and with the Çatalhöyük Research Project data.
Table 6.5	Population estimates of Çatalhöyük single living room units using three formulae that relate roofed floor area to the number of inhabitants.
Table 6.6	Occurrence of painted and moulded motifs and installations in building 8 from level X to V, orientations indicated.
Table 6.7	Overview of the different types of activities taking place in buildings, on roofs, in bounded open spaces, and in unbounded open spaces during the hot and cold parts of the year and in early and late levels at Çatalhöyük.
Table 7.1	Population estimates for the larger Erbaba rooms, and of the three building units using three formulae that relate roofed floor area to the number of inhabitants.
Table 8.1	The Canhasan I stratigraphy and chronology according to French (1998) and Thissen (2000).
Table 8.2	Stratigraphic re-assignments of buildings at Canhasan I.
Table 8.3	Preserved wall heights of excavated layer 2B buildings at Canhasan I.
Table 8.4	Population estimates for Layer 2B Canhasan I rooms including estimated upper storeys, using three formulae that relate roofed floor area to the number of inhabitants.
Table 9.1	Characteristics of the two forms of social organisation as defined by Tönnies and Durkheim.
Table 9.2	Population estimates for building units in the clustered neighbourhood settlements of the Central Anatolian Neolithic, using three formulae that relate roofed floor area to the number of inhabitants.

ACKNOWLEDGEMENTS

There are a large number of people to which I have become indebted in the course of the preparation of this dissertation. The study developed out of an earlier Master of Arts thesis submitted in 2000 at Leiden University, dealing with the organisation of settlement space at the site of Çatalhöyük. I was bold enough to send this thesis to Ian Hodder, James Mellaart, and Roger Matthews. It was their unexpectedly positive response more than anything else, which planted the idea of developing my research into a Ph.D. dissertation. James Mellaart kindly invited me for tea at his house in London, and told me what life had been like at Çatalhöyük in the 1960s, Roger Matthews suggested that I should rework my MA thesis into an article, and this resulted in my first publication in *Anatolian Studies*, and Ian Hodder invited me to participate in the new excavations at Çatalhöyük, which led to three seasons of fieldwork, access to excavation files and unpublished manuscripts, and allowed me to meet a large number of archaeologists from across the globe.

At some point in 2001, I accidentally ran into Marc Verhoeven, who had been supervising my MA thesis, and it was he who told me about a Ph.D. scholarship for which I could apply. My application resulted in the opportunity to do four years of funded research at the Faculty of Archaeology, Leiden University, and I am extremely grateful to the committee that granted me this scholarship.

During my Ph.D. research I was helped by many people, and was often surprised by the extent of this aid. In this place I would like to single out those people who have been most helpful. Ian Hodder has supported my research project at all stages, and was always willing to help out in practical matters. His support has been of great importance for the success of my studies. Theya Molleson has given me access to the documentation on the 1960s burials at Çatalhöyük, and these have become one of the key elements in the current study. David French has been kind enough to meet me on several occasions to explain matters concerning the Canhasan sites.

In the course of my Ph.D. I was able to participate in a number of conferences. Laurens Thissen and Frederic Gérard invited me to take part in the CANeW (Central Anatolian Neolithic e-Workshop) conference, an extremely interesting symposium that was published with exceptional speed. Stuart Campbell kindly asked me to give a presentation at the 2003 BANE (British Association of Near Eastern Archaeologists) conference in Manchester. I thank Wendy Matthews and Eleanor Roe for allowing me to present in the 2004 BANE conference in Reading. Gunes Duru, Burcin Erdoğan, and Nurcan Yalman organised an EAA (European Association of Archaeology) session, for which they invited me to present. Miguel-John Versluys and Alexander Verpoorte asked me to present at the 'Archeologie en Theorie' symposium held in Leiden in 2004. Robin Beck invited me to participate in the 2005 Carbondale Visiting Scholar Conference.

In the course of my studies I have been publishing a variety of papers, and the process of formulating my ideas for these papers and the feedback I got from the editors has been of great importance for the current Ph.D. My thanks go out to Gina Coulthard, the editor of the *Anatolian Studies*; Fokke Gerritsen and Ton Derks, editors of *Archaeological Dialogues*; and Bernard Knapp and John Cherry, editors of the *Journal of Mediterranean Archaeology*.

Further, I would like to thank Jacob Roodenberg, chief editor of the PIHANS series, and an anonymous referee, for their willingness to publish the current book. For the permission to reproduce several figures and plans I would like to thank Dr. David French (figures relating to Canhasan I and III), Professors Ufuk Esin and Nur Balkan (for figures of Aşıklı Höyük, I also offer my apologies for publishing these figures earlier in the *Journal of Mediterranean Archaeology* without consulting them), and the Çatalhöyük Research Project, in particular Ian Hodder and Craig Cessford (for figures in the Çatalhöyük chapter).

In the spring of 2003 I spend six weeks at the MacDonald Institute of Archaeology at Cambridge, to work on the excavation archives of the Çatalhöyük project. This stay has been of great importance for obtaining access to raw data and unpublished manuscripts on Çatalhöyük. I would like to thank NWO for funding my visit to Cambridge, Stephanie Meece, for arranging accommodation for me, and Craig Cessford and Anja Wolle for their hospitality.

The participation in the Çatalhöyük excavations has been of great importance in grounding my analysis in a first hand experience of the site and the nature of its deposits. Furthermore, it allowed me to discuss my ideas with other researchers and to learn from their perspectives. In particular, I would like to thank the following people. Nerissa Russell, for her friendship, for her feedback on my work, and for writing an article with me. Arek Marcianiak, for his support of my work, and for working with me on another article. Ruth Tringham and Mirjana Stevanovic for having me in the BACH team. Wendy Matthews, for her willingness to answer my questions on building practices and site deposits. Basak Boz and Lori Hager were kind enough to give me feedback on issues regarding the burials at Çatalhöyük. I would also like to thank Nur Balkan and Mihriban Özbaşaran for their hospitality during my visit to the Aşıklı Höyük and Musular excavations.

At the Faculty of Archaeology at Leiden University and in the Netherlands my thanks go out to many. Eric Dullaart, Tjaco Mast, Hans Kamermans, and Milco Wansleben all helped to solve my countless computer problems and explained numerous obvious things about computers in general. Medy Oberendorff prepared the drawings in this study, and has done a great job. Laura Crowley corrected my English. Hella Hollander and Marianna Düring were very kind to correct the Dutch components of this thesis. Sjoerd van der Linden helped me to understand something about loam architecture. Erik van Rossenberg aided me in keeping track of relevant new publications. Alexander Verpoorte co-taught a seminar on the Neolithic with me, and co-organised a lecture series with me (Archaeological Forum), and this was instrumental for broadening my horizons beyond Central Anatolia. Amongst the people interested enough in my work for discussions and feedback were Rana Özbal, Fokke Gerritsen, Peter Akkermans, Noriyuki Shirai, and Miguel-John Versluys. Further, I would like to thank my ‘paranimfen’ Damon Huijink and Peter Stokkel.

Finally, I would like to thank those closest to my hearth: my parents; my brothers; and first and foremost, my wife Marianna. She has had to put up with a man who was often at home only to sleep and to eat, and never held it against me. Thanks.

“Before Boucher de Perthes, as in our own day, there were plenty of flint artifacts in the alluvium of the Somme. However, there was no one to ask questions, and there was no Prehistory.” (Bloch 1967, 64)

INTRODUCTION

This is a study of a group of Neolithic settlements located in Central Anatolia that can be dated between 8500 and 5500 Cal. BC. Many of these settlements are of substantial sizes for the Neolithic, ranging in surface dimensions between 4 and 13 ha, and the excavated building remains suggest that they were densely occupied. The settlements of the Central Anatolian Neolithic took on a highly distinctive form: they were organised into a number of streetless clustered neighbourhoods in which transport and communications were channelled via the roofs, and in which buildings were accessed with ladders from above. This study aims to investigate these settlements in detail and to provide models for how society was constituted in the Central Anatolian Neolithic on that basis.

The Neolithic Revolution is undoubtedly one of the most profound transitions in the history of humankind. The development of a sedentary way of life and the adoption of agriculture are at the root of complex civilisations worldwide. One of the most prominent centres in which the initial domestication of plants and animals took place that allowed for the subsequent spread of a settled way of life is the Near East.

The systematic study of this threshold in Prehistory was first initiated by Braidwood in 1949 with his excavations at the site of Jarmo (Braidwood 1960; Watson 1995). In the decades following this pioneering project much knowledge has been gained on the Neolithic of the Near East, although our understanding of this cultural horizon remains inadequate in many respects and is regularly transformed as a result of new excavation results (Esin *et al.* 1991; Schmidt 1998; Roodenberg 1999; Stordeur and Abbès 2002; Peltenburg and Wasse eds 2004). One of the issues that has become increasingly clear over the last decades, as our evidence became more fine grained, is that the Near Eastern Neolithic was not a unified and coherent development (Rollefson and Gebel 2004).

The Neolithic of Central Anatolia has often been regarded as an intermediate horizon set between the initial articulation of the Neolithic way of life in the Fertile Crescent, and its subsequent adoption in Europe. Anatolia was conceptualised as a land bridge that connected the two regions, rather than as an area that should be studied in its own right (M. Özdoğan 1995; 1999). Over the last 25 years it has become clear, however, that the Central Anatolian Neolithic constitutes a distinct centre of early neolithisation that diverges in fundamental respects from that of the Fertile Crescent, and cannot be regarded as an offshoot of the latter (M. Özdoğan 1999; Thissen 2000; Balkan-Atlı and Binder 2001). From at least 8500 Cal. BC onwards, large settled communities have been documented in this region that take on forms not found in the surrounding regions (Özbaşaran 1999). In order to adequately understand this cultural horizon it is essential that the local culture-historical sequence is prioritised, although interactions with other regions should not be neglected.

The Central Anatolian Neolithic offers a wealth of contextual data on a scale that is without parallel either in the Fertile Crescent or in Europe. A series of large extensively excavated exposures allow us to study the forms that settlements took, and the uses to which the spaces in these settlements were put, over a period of three millennia from ca. 8500 to 5500 Cal. BC (Özbaşaran and Buitenhuis 2002), at the sites of Aşıklı Höyük, Canhasan III, Çatalhöyük, Erbaba, and Canhasan I. Large phase plans of these settlements that provide an insight into the configuration of space in this cultural horizon can be combined with data that inform us on where people were buried, in what types of buildings they lived, and where they cooked, amongst other matters. In some cases the development of a neighbourhood can be traced over the course of

several centuries (Düring 2005a), allowing us to study the ways in which the present was in part constituted by the past in the Central Anatolian Neolithic.

Despite the presence of this rich body of data on Neolithic life ways in Central Anatolia no systematic studies of these settlements exists at present, and our understanding of them remains inadequate. What we do know about these settlements is difficult to accommodate within the dominant model of the Neolithic, in which society is reconstructed as small-scale and simple. Some of the settlements in this study, and in particular, Aşıklı Höyük and Çatalhöyük, are amongst the largest in the Near Eastern Neolithic, and populations would have run into the thousands (Moore *et al.* 2000, 4; Hodder and Cessford 2004, 17). Moreover, these sites seem to have been located in more or less empty landscapes: efforts to locate nearby contemporary sites have so far failed. Zooming in on the settlements themselves we find that domestic buildings were clustered into blocks that were not broken by streets or alleys, lacked exterior doors, and the individual structures seem to have been accessed from the roof by way of a ladder. This spatial organisation is difficult to make sense of, and seems to contradict models in which Neolithic society is held to revolve around autonomous households (Düring and Marciniak 2005).

These ‘clustered neighbourhood settlements’ are the central subject of this study. The basis of the analysis consists of the following two elements: first, a series of digitised grid referenced plans was created for each of the settlements concerned; second, a systematic database was set up specifying what was found where in these sites. The methodology applied consists of three components: first, a contextual analysis, in which the distribution of features is used to evaluate the nature of buildings and the variability between structures; second, a diachronic analysis, in which the developmental trajectories of buildings and neighbourhoods over time are investigated; and, third, a configurational analysis, in which the ways in which the spatial organisation of these settlements was structured is analysed. Taken together these approaches have the potential to create important new insights into the Neolithic of Central Anatolia.

The study was designed specifically as a test for exploring the degree to which the potential of the low resolution data from older excavation projects can be further developed using modern computer methodologies, and whether these data can be meaningfully integrated with more recent high resolution excavation evidence that is by necessity much more restricted in scale. The study of settlements in Near Eastern archaeology depends on our ability to incorporate projects that have generated low-resolution data, simply because that evidence will probably not be replaced in the near future.

This is not primarily a study in methodology, however. The principal issues addressed in this study are social ones. The central question asked is: in what manner was society constituted and reproduced during the Central Anatolian Neolithic? More specifically: what types of social groups were people living in, and how were different levels of society interrelated? Surprisingly, given the fact that we are dealing with the period during which people first started living in large communities, these types of questions have not been considered systematically in studies of this cultural horizon, nor have they been addressed in analyses dealing with other parts of the Near Eastern Neolithic. This is probably due to the fact that the research into this period has been undertaken on the basis of two paradigms, both of which neglect social issues.

First, there is the traditional paradigm that focuses on issues of ecology, economy and technology. In this paradigm, the Neolithic is conceived mainly as an economic transition that was forced on complex hunter-gatherer societies by a combination of circumstances, such as changes in climate (Bar-Yosef and Belfer-Cohen 2002), demographic pressure (Cohen 1977), or both at the same time (Binford 1968; Flannery 1969; Henry 1989). In this school of thought the key issues to be explored are: first, local climate histories and how these affected the availability of natural resources (Van Zeist and Bottema 1991); second, analysis of morphological changes in plants and animals related to their domestication (Hillman and Davies 1992; Asouti and Fairbairn 2002); and, third, how these developments were interrelated.

Since the late 1980s new interpretations of the Neolithic Revolution are being launched that both oppose and complement the earlier paradigm. In these more recent approaches, championed by Jacques Cauvin (Cauvin 1997) and Ian Hodder (1987; 1990; 1998a), the Neolithic is seen mainly as a symbolic and cognitive transition, an outcome of a set of new structures of thought that developed at the end of the Palaeolithic. In this view the domestication of plants and animals and the Neolithic economy are secondary to a change in mentalities. In his influential book 'The domestication of Europe' (1990), Hodder postulates a series of changes in the way people thought about the world, which took place in relation to a set of binary oppositions embodied in the house, referred to as the 'domus'. These oppositions revolved primarily around the dichotomy between nature and culture.

It is my contention that both of these research traditions have neglected a critical component of the Near Eastern Neolithic: namely the formation, constitution, and reproduction of large sedentary local communities (*cf.* Davis 1992, 345; Garfinkel 1998, 225). The emphasis on ecology, economy and symbolism has resulted in a focus on households, perceived as the most important social institution emerging in the Neolithic and linked to the new agricultural economy or the new symbolic system respectively, to the exclusion of other levels of social interaction (Flannery 1972a; Hodder 1990; Byrd 1994; 2000; Flannery 2002). The problem with these perspectives is that they ignore the questions *why* and *how* people started to live in large and permanent associations. For most archaeologists working on Neolithic social organisation the development of large communities constitutes a problem, rather than an essential ingredient of the Neolithic.

This study, then, deals with the Neolithic communities of Central Anatolia and seeks to identify some of the mechanisms that were involved in the creation and reproduction of social groups in this period. This may help us to gain a better understanding of the settlements and societies of the Central Anatolian Neolithic, and it will also provide a first contribution to the study of the constitution of society in the Near Eastern Neolithic. Finally, this study seeks to clarify what motivated people to start living communally in the context of the Central Anatolian Neolithic. The answers may, I hope, be of relevance beyond that time and place.

CHAPTER 1: THE CENTRAL ANATOLIAN NEOLITHIC

Notwithstanding the fame of the site of Çatalhöyük, the Central Anatolian Neolithic as a whole is only poorly known outside a small circle of scholars dealing with this cultural horizon, probably due to the fact that it is located on the periphery of the fields of Near Eastern Archaeology on the one hand and European Prehistory on the other. As a result the Central Anatolian Neolithic is primarily being studied by Turkish archaeologists, although British archaeologists have made significant contributions to the study of this Neolithic horizon. In these circumstances Çatalhöyük is often seen by the wider archaeological community as a unique phenomenon, rather than as a site that is part of a broader cultural tradition.

A recent symposium on the Central Anatolian Neolithic has been of great importance for our understanding of this cultural horizon (Gérard and Thissen eds 2002), and it now seems clear that the region constituted one of the most important formation zones in the context of the wider Near Eastern Neolithic. The study of the Central Anatolian Neolithic is of importance not only in the context of cultural relations between Anatolia and the neighbouring regions in the Neolithic, but, first and foremost, as a subject in its own right. The Neolithic in Central Anatolia was a unique laboratory in which people related to the natural world in new ways, and in which novel forms of society took shape.

In this chapter I will present an outline of the Neolithic of Central Anatolia. This includes a general discussion of the geography and climate of the region, and an introduction to the archaeology of the Central Anatolian Neolithic.

1.1.1 LANDSCAPES AND CLIMATES OF CENTRAL ANATOLIA

Names for particular geographical regions are rare in Turkey (Hütteroth 1982, 17), although some exceptions, such as ‘Cappadocia’, clearly exist. Typically people will identify themselves as coming from a particular city, although they may actually be living in a remote village at several hours travel distance from that city. This absence of geographical names for regions makes it more difficult to identify the region of concern.

In this study ‘Anatolia’ refers to the Asiatic part of the modern state of Turkey, whereas ‘Central Anatolia’ designates the inland plateau bordered to the north by the Pontus Mountains, and to the south by the Taurus Range. These two mountain ranges merge in Eastern Anatolia and define the limit of Central Anatolia in that direction, although there are no clear geographical boundaries in this area. Finally, in the west the plateau is cut by river valleys with an east west orientation that run to the Aegean. There, too, the edges of the different regions are blurred and can only be approximated.

It is important to emphasise that the region of Central Anatolia is not a coherent geographical entity but consists of a very diverse series of landscapes that are generally about a 1000 metres above sea level. These include two large arid basins in the southern part of the region: the Konya Plain and the ‘Tüz Gölü’ (Salt Lake) Basin. The Pleistocene alluvial deposits that predominate in these plains are also found in some of the large river valleys that can be found on the Plateau, the most important of which are the Kızılırmak and the Yeşilirmak. Apart from the aforementioned basins and river valleys the Anatolian Plateau is characterised primarily by relief, consisting of both hilly terrain and mountains. A variety of minor mountain ranges fragment the Plateau and complicate communications. A special region is Cappadocia, which is characterised by the remains of volcanism, with some volcanic peaks rising above 3000 metres a.s.l.¹

¹ Most notably Erciyes Dağı at 3916 metres a.s.l. and Hasan Dağı 3258 metres a.s.l.



Figure 1.1: Map of Southern Central Anatolia, with the main sites discussed in this study indicated.

The geographical region of Central Anatolia, then, is both vast and diverse. However in this study the label refers to a much more restricted area that includes primarily the Konya Plain and the region of Cappadocia, for the simple reason that these are the only areas in Central Anatolia where Neolithic sites have been systematically excavated. Thus the term Central Anatolia in this study should be read as shorthand for ‘Southern Central Anatolia’.

With the exception of the site of Erbaba, located in the foothills on the shores of Lake Beyşehir, all of the sites in this region are located today in marginal landscapes. The climate is continental with average July temperatures of about 25 °C, and January temperatures of ca. 0-5 °C.

In the central part of the region annual precipitation is no more than 200 to 300 mm, but near the Taurus Mountains precipitation values between 400 and 600 mm have been recorded (Hütteroth 1982; Alex 1985). In theory this amount of precipitation should suffice for rain fed agriculture, but there is a considerable amount of inter-annual variation in precipitation. As a result droughts and bad harvests occur on a regular basis in Central Anatolia (Hütteroth 1982, fig. 42).²

The vegetation of the region concerned has been significantly affected by modern land use strategies which include herding, dry farming and irrigation agriculture. The latter in particular has had a profound effect: a drop in ground water level has led to the disappearance of water in marshy areas and in rivers, and has an adverse effect on tree survival. The assumed natural vegetation in the area is a steppe of 'dwarf-shrublands', in which grasses alternate with shrubs (Van Zeist and Bottema 1991, 23-3). Near the mountains this vegetation gives way to open woodlands with broad-leaved and needle-leaved trees resistant to cold temperatures. Pine, juniper, and oak dominate in these woodlands (Van Zeist and Bottema 1991, 28; Asouti 2005, 248-50).

1.1.2 CLIMATE AND VEGETATION OF CENTRAL ANATOLIA IN THE NEOLITHIC

Climatic conditions and vegetation belts have fluctuated considerably in Anatolia during the Late Pleistocene and the Early Holocene (Van Zeist and Bottema 1991; Roberts and Wright 1993). These have been reconstructed primarily on the basis of pollen cores and lake level analyses.³ The most systematic study of pollen cores in Anatolia has been executed by scholars from Groningen (Van Zeist and Bottema 1991; Woldring and Bottema 2001). Pollen cores were taken across Anatolia, allowing for a comparative analysis of the changes in vegetation in different regions, most likely related to wider climatic developments.⁴ On the basis of these regional vegetation sequences Van Zeist and Bottema have reconstructed the palaeo-environment of the Near East for: 18.000-16.000 BP; 12.000-11.000 BP (start of Holocene); 8000 BP (ca. 7000 Cal. BC); and 4000 BP (ca. 2500 Cal. BC). According to their reconstructions the coastal areas of Anatolia were covered with open woodlands at ca. 18.000-16.000 BP, and the interior and eastern parts of Anatolia were characterised by dry and cold conditions, with steppe and desert-steppe vegetation. At around 12.000-11.000 BP, temperatures were only about 2-3 °C colder than today, but precipitation was probably low. The vegetation belts as inferred from the pollen samples are very similar to those at the end of the Pleistocene, but in the Taurus a woodland zone is posited, mostly consisting of oak. According to Kuzucuoglu and Roberts (1998, 17-8) a deterioration of the vegetation in pollen cores corresponding to the Younger Dryas is evident, just before the onset of the Holocene. The subsequent map of Van Zeist and Bottema at 8000 BP shows a marked increase

² In this regard it is perhaps significant that large parts of this region were not used for farming during the 18th and 19th centuries AD (Hütteroth 1968).

³ Additional information can be gleaned from ice-cores and oxygen isotopes in marine 'foramifera' – a type of shell - (Rossignol-Strick 1998; Bryson and Bryson 1999) but these provide a general picture of climatic developments rather than a regionally differentiated record, and are less useful for that reason. Recently, a model of the climatic changes in Holocene Anatolia has been proposed by Bryson and Bryson (1999). It is based on measurements of ice-cores on the North Pole, and computer models of how low and high pressure zones and jet streams changed. The value of this climatic modelling approach is hard to evaluate, but some of their reconstructions are in direct contrast with the data from pollen cores and lake level studies. For instance, Bryson and Bryson reconstruct a forest in the Konya Plain before 10,000 BP (Bryson and Bryson 1999, 6), which is not in accordance with the pollen from the area of that period, that points towards a steppe vegetation (see fig 1.9, see also van Zeist and Bottema 1991, 73-5). Similarly they speak of a large lake on the shores of which Çatalhöyük was supposedly situated (Bryson and Bryson 1999, 6), but this large lake ceased to exist after ca. 17,610 +/- 160 BP, some 10,000 years before Çatalhöyük was founded (Roberts 1983, 167).

⁴ Nonetheless Van Zeist and Bottema state (1991, 53): "in view of the altitudinal and climatic diversity in the regions concerned, the amount of sufficiently detailed evidence is far from satisfactory. That is to say, more pollen diagrams covering other vegetation and altitudinal belts would have been desirable."

of forests in Anatolia. The advance of forests in this region was a complex phenomenon, occurring at diverse moments in different areas, and in some cases the process took several millennia to complete (Van Zeist and Bottema 1991; Woldring and Bottema 2001, 25). Roberts and Wright (1993, 215) suggest that forestation started in the coastal regions, and occurred somewhat later in interior regions. At around 8000 BP woodland vegetation predominated on the fringes of Central Anatolia, with some forest-steppe in the Cappadocian area. The most substantial interior part of Central Anatolia remained characterised by steppe and desert-steppe vegetation, however. Roberts has recently suggested that the slow rate of forestation of Central Anatolia at this time may have been due in part to human activities, such as igniting emergent shrubs (Roberts 2002), while Woldring and Bottema (2001, 28) argue that animal herding may have played a role. Climatic conditions in this period seem to have resembled those of the present, but may have been somewhat more favourable (Woldring and Bottema 2001, 26), and some researchers speak of a climatic optimum in the Early Holocene (Özdoğan 1997; Rossignol-Strick 1998).⁵ During this period the vegetation would have included a fair amount of trees in favourable localities in the foothills, and along rivers and marshes (Asouti 2005, 243-50).

A second source of information on ancient climates is provided by the study of lake levels of permanent lakes such as Lake Beyşehir and Lake Van.⁶ By analysing sedimentation processes, macrofossils of water plants, shells and other faunal remains in cores taken from lake deposits, the approximate depth and salinity of lakes during specific periods in the past can be reconstructed (see Roberts 1983; Roberts and Wright 1993). These data can be compared with lake terraces and the local topography to determine the size of a given lake in a particular period. The fluctuations in lake levels and lake sizes can be integrated into an analysis of changing climatic conditions. Receding lake levels can be connected with less precipitation, more evaporation, or a change in the outlet of a lake. Increasing depth of lakes, on the other hand, can be caused by such factors as the melting of ice, more precipitation, less evaporation, or a change in the outlet of a lake.

During the Pleistocene, up to about 17,000 BP, lake levels in Anatolia were generally higher than at present (see Roberts and Wright 1993, fig. 9.11). Subsequently, the lake levels in the Lake Beyşehir and in other lakes in the vicinity of the Konya Plain were slightly higher than at present at the end of the Pleistocene, between ca. 11,000 – 10,000 BP. After this ‘lake optimum’ lake levels receded to Early Holocene levels, which are essentially ‘sub recent lake levels’.⁷ Some authors have reflected on the contrast between the increasing precipitation as evidenced in the forestation of Anatolia during the Holocene on the one hand, and the fact that lake levels reach their maximum prior to the start of the Holocene, in a period characterised by pollen as steppe vegetation, on the other (Roberts and Wright 1993, 217; Bryson and Bryson 1999, 3). However, lake levels are influenced by a range of factors, and cannot be equated simply with precipitation. For instance, Roberts and Wright (1993, 217) reconstruct 18,000 BP summers that are 1-2 °C cooler than those of today, with some rain and clouds, due to which evaporation was less dominant, and lake levels could have expanded.⁸

⁵ Recently much attention has been generated by what has become known as the ‘8.2 KA event’, a period of about three centuries, between about 8,400 and 8,100 Cal. BP (Wagner *et al.* 2002), during which there was a lasting drought that might have had severe effects on Neolithic societies in the Near East (Weiss and Bradley 2001; Akkermans 2004). Little is presently known about the effects of this ‘8.2 KA event’ in the Near East. In the context of the Central Anatolian Neolithic no major changes corresponding to this climatic rupture seem to be visible in the archaeological record.

⁶ Sea levels have also fluctuated considerably, as a result of which ancient shorelines differed from those of today (Özdoğan 1997). These fluctuating sea levels relate to climatic changes at a very general level, but have hardly been studied in relation to local climatic changes (see however Blanchet *et al.* 1998).

⁷ That is, before large-scale irrigation methods altered the water economy in Southern Central Anatolia drastically.

⁸ Yet another, third, source of data for climatic reconstructions are the plant and animal remains found at excavations. However, the problems connected to these data are apparent. The botanical and faunal remains

1.2.1 THE RESEARCH HISTORY OF THE CENTRAL ANATOLIAN NEOLITHIC

The research into the Neolithic of Central Anatolia can be divided into four main stages: first, the period up to 1950; second, 1950 – 1970; third, 1970 – 1989; and fourth, 1989 – present. Until the 1950s the Early Prehistory of the region remained virtually unexplored. The orthodox position in archaeology at that time was that Central Anatolia had not been occupied before the Bronze Age. This view is best exemplified by Seton Lloyd, the director of the British Institute of Archaeology in Ankara at that time, and one of the foremost scholars in the field of Anatolian archaeology, who stated: “The scene of the Neolithic revolution seems in fact to have been an area limited to the north by the range of the Taurus and the fringes of the Syrian plain.” (1956, 53).

The absence of a Neolithic phase in Anatolia was explained primarily through ecological reasoning. The climate of the Anatolian Plateau, especially the harsh winter temperatures, were seen as an insurmountable obstacle. In this thesis Lloyd followed other important scholars of Anatolian archaeology, such as Bittel, Orthmann, and Mellink, all of whom considered 3000 BC to be the date for the initial occupation of the Anatolian Plateau (Bittel 1950, 16-7; M. Özdoğan 1995, 50).

Prior to the 1950s a number of site assemblages had already been published that seemed to predate the Bronze Age (Todd 1976, 2). In particular, early material had been known for some time from Çukurkent (Ormerod 1913), and the geologist Kleinsorge had discovered the site of Ilıcınar, and published a report on it (1940). The assemblages from these sites were interpreted by Lloyd as the remains of campsites of groups of people who occasionally crossed the Taurus, walking hundreds of kilometres to obtain salt and obsidian in Central Anatolia (M. Özdoğan 1995, 49).

Some scholars, however, could not agree with the 3000 BC baseline for the occupation of Anatolia. Kökten and Tahsîn Özgüç had been arguing that a Pre-Bronze Age phase did exist in Anatolia, pointing to the existence of assemblages comparable to those found in Chalcolithic Mesopotamia (Özgüç 1945). Lloyd interpreted these material remains as the product of originally Chalcolithic settlers who colonised Anatolia from the east, but whose material culture did not develop in the meantime. Thus Lloyd reconstructed Chalcolithic material culture surviving into the Bronze Age (M. Özdoğan 1995, 50).

In the period between 1950 and 1970 the study of Prehistoric Anatolia was dominated by two British researchers: James Mellaart and David French, who undertook a series of surveys and excavations in the 1950s and 1960s that have been of lasting importance. Initially the balance of the debate did not shift when additional Pre-Bronze Age artefacts were found in the Konya Plain during a survey carried out by Mellaart in 1951-1952. A preliminary report of this survey was published in 1954 by Mellaart, but the dating of the assemblages he had found remained a matter of debate (Todd 1976, 2). However, the excavations carried out by Mellaart at Hacılar between 1957 and 1960, and at Çatalhöyük from 1961-63, and in 1965, as well as those carried out by French at Canhasan I and III between 1961 and 1967, clearly revealed that Anatolia had been occupied in the Neolithic and Chalcolithic periods.

At Hacılar Mellaart found remains that can be dated to the Ceramic Neolithic and Early Chalcolithic periods, and possibly to the Aceramic Neolithic (see §1.3.1). The excavations at Hacılar became known to the wider public because of the attractive red-on-cream painted pottery found at the site, and the alluring female figurines, both of which appealed to the then fashionable expressionist art (Pearson and Connor 1967, 76-89). These objects belong to the early stages of the Chalcolithic and the preceding Ceramic Neolithic. Although some early, possibly Aceramic

found at a site are transformations of an initial selection of materials used by the inhabitants of a site (*cf.* Miller 1998, 206). In a region such as Central Anatolia, with a large diversity of vegetational zones within small distances, the use of botanical and faunal data from archaeological sites for climatic reconstructions is highly problematic.

Neolithic, remains were also found at Hacılar, the transition from Aceramic to Ceramic Neolithic was not obtained.

To investigate that transition Mellaart initiated the excavations at Çatalhöyük. At that time nobody could have foreseen the spectacular results that were to follow, which took the scientific community completely by surprise (Todd 1976, 3; Hodder 1996a, 3; Last 1998a, 356). The site itself had been found in 1958, but the first excavations started in 1961, and subsequently excavations took place in 1962, 1963, and 1965.

In the course of the excavations a large number of spectacular wall paintings and moulded sculptures were found that were without parallels. Additional elements contributing to the fame of the site were the clustered neighbourhood settlement seemingly without public space, and the intramural burials found beneath the building floors. The site, with its 13 ha, was of a size unknown for the Neolithic at that time. In addition, the number of 'oldest' items found at the site was impressive. Çatalhöyük contained the first wall paintings; the oldest wooden vessels and basketry (Mellaart 1964, 84-92); the oldest textiles (Burnham 1965; Ryder 1965),⁹ and the first domesticated cattle (Perkins 1969).¹⁰

Simultaneously with the excavations at Çatalhöyük another British team was working at a cluster of sites known as Canhasan. The excavations at Canhasan I, carried out between 1961 until 1967, were led by David French, and were primarily aimed at: first, providing a stratigraphical sequence for the Chalcolithic of the Konya Plain; and, second, providing an area exposure of the Chalcolithic period at Canhasan (French 1998, 8). At the nearby site of Canhasan III, which belongs to the Aceramic Neolithic period, small-scale excavations were conducted in 1969 and 1970.

Following the successful excavation projects at Hacılar, Çatalhöyük and the Canhasan sites, there was surprisingly little activity in Central Anatolia throughout the 1970s and 1980s. To the west, in the Lake District, a systematic regional investigation programme was set up by Refik Duru, who excavated at Kuruçay from 1978 to 1988, at Höyücek from 1989 to 1992, and at Bademağacı from 1993 up to the present. These sites date mainly to Late Ceramic Neolithic and Early Chalcolithic periods, ca. 6600-5500 Cal. BC.

By contrast, in the region of Central Anatolia research was more sporadic and less intensive. One modest research project developed out of a survey in area of the Beyşehir and Suğla lakes, west of the Konya Plain, undertaken by Solecki in 1963. Two of the sites found during that survey were subsequently excavated by Bordaz to study "the origin and development of sedentism and domestication" (Bordaz 1968, 43). The first site excavated was Suberde / Görüklük Tepe, which is located on the western shore of Suğla Lake. Excavations took place in 1964 and 1965 to investigate the later half of the Ceramic Neolithic. Unfortunately, only very small areas were excavated, and a clear understanding of the site was not obtained. In 1969, 1971, 1974, and 1977, Bordaz undertook a second excavation project at Erbaba, located on the western shore of Lake Beyşehir. Here 1100 m² of Early Ceramic Neolithic remains were excavated, amounting to some 22 % of the site surface. Both the Suberde and Erbaba projects have been published only in very short preliminary reports, and consequently have not played a large role in studies dealing with Anatolian Prehistory.

Meanwhile, between 1964 and 1966, the region of Cappadocia was surveyed by Todd (1980). The first excavations in this region were at Niğde – Tepebağları, by Çınaroğlu (Özgüç 1973) in 1973, but these remain to be published. Silistreli worked at Pınarbaşı Höyük in 1982, which has both Phrygian and Neolithic remains. These excavations also remain to be published. Subsequently Silistreli started excavations at Köşk Höyük, which lasted from 1983 up to 1991, when he died unexpectedly. Since 1996 excavations have been resumed at the site by Öztan, and some more extensive publications have started to appear (Özkan 2001; Öztan 2002; Öztan and

⁹ Older textiles have since been found at Çayönü (Vogelsang-Eastwood 1993).

¹⁰ The interpretation that cattle were domesticated at Çatalhöyük has later been proven wrong by Ducos (1988), and Martin *et al.* (2002).

Faydalı 2003). On the basis of radiocarbon dates and tree-ring chronology it now seems that the main Prehistoric occupation of the site dates to the Early and Middle Chalcolithic, between ca. 5500 – 4000 Cal. BC (see §1.3.1).

From 1989 onwards the Central Anatolian Neolithic has become the renewed focus of systematic investigations by both Turkish and international teams. A major salvage excavation project was undertaken at Aşıklı Höyük in 1989 which continued up to 2004, under the supervision of Ufuk Esin. The site is to be dated to the Aceramic Neolithic period and measures ca. 4 ha. Large exposures were obtained at the site providing a window into this early settlement. As a result of systematic excavations the site has emerged as one of the key sites for the Neolithic of Central Anatolia.

Another important development in the study of Central Anatolian Prehistory was the return of archaeologists to the site of Çatalhöyük. Since 1993 Ian Hodder has been directing investigations that are scheduled to last until 2017. Researchers from many countries are participating at the site, including teams from Turkey, Poland, Great Britain, Greece, and the United States. The project focuses on ‘high-resolution’ excavations and analysis of the archaeological remains, in which it is endeavoured to extract the maximum possible amount of information from the trenches through meticulous excavation, documentation and sampling procedures. A number of publications have appeared since 1993, when the project started (Hodder ed. 1996; Conolly 1999a; Hodder ed. 2000; Hodder ed. 2005), and detailed information can also be obtained via the website of the project. Despite the fact that the data from the earlier Mellaart excavations remain of key importance, our understanding of the site is being profoundly transformed as a result of these new excavations.

As a result of the two large-scale excavation projects at both Aşıklı Höyük and Çatalhöyük, interest in the Neolithic of Central Anatolia has been revived and many additional research projects dealing with this topic have been set up in recent years.¹¹ These include a number of surveys (Gülçür 1995; Baird 2000; Omura 2000), and geomorphological investigations of the Konya Plain (Roberts *et al.* 1996; Roberts *et al.* 1999). Further, a number of excavation projects have been initiated. In the Konya Plain the excavations at the Pınarbaşı rock shelter sites need to be mentioned, with remains dated to the Aceramic Neolithic at Pınarbaşı A, and to the Late Ceramic Neolithic at Pınarbaşı B (Watkins 1996; Baird 2004). Furthermore, excavations have started on the west mound at Çatalhöyük, which had already been sounded earlier by Mellaart and can be dated to the Early Chalcolithic period (Last 1998b).

In the Cappadocian region two research projects dealing with the Neolithic of Central Anatolia have been undertaken in the wake of the excavations at Aşıklı Höyük. The ‘Obsidian Sources’ project has been set up to investigate the exploitation of some of the Central Anatolian obsidian sources, and includes a chemical analysis of some of those sources, a survey of the artefacts located in their vicinity, and excavations at the obsidian workshop of Kaletepe, which is dated to the Aceramic Neolithic. The project is a joint Turkish-French project involving scholars such as Balkan-Atlı (University of Istanbul), Binder and M.-C. Cauvin (Maison de l’Orient Méditerranéen). It started in 1996 and came to an end in 2003 (Balkan-Atlı *et al.* 1999a; 1999b; Balkan-Atlı and Binder 2001; Binder 2002).

¹¹ Despite the projects mentioned, the Central Anatolian Neolithic in particular and the Neolithic of Turkey in general can be regarded as poorly investigated. M. Özdoğan (1995, 53) characterised the status of research thus: “The total number of excavated Neolithic sites in Iraq, Syria, Lebanon, Jordan and Israel is over 350: in all of Turkey, covering a larger area than all these countries put together, the number of excavated sites, including small soundings, is just 32. Similarly, in Southeastern Europe, the number of excavated Neolithic sites is over 400.”

No dramatic changes have occurred since 1995. The Central Anatolian region, for instance, remains poorly investigated. In a region measuring ca. 220,000 km², excavations have only been carried out at 18 sites so far to investigate a period lasting from 8500 - 5500 Cal. BC. Large-scale excavations were limited to 4 sites, and most of these remain to be published.

A second research project of interest consists of the excavations at Musular, a site dated to end of the Aceramic Neolithic and to the Late Ceramic Neolithic or Early Chalcolithic (Özbaşaran 1999; 2000). The site is located near Aşıklı Höyük, and the relation of the site to its large neighbour is of key interest. Excavations began in 1996 and were concluded in 2004.

Finally, I should mention the excavations at the Middle Chalcolithic site of Güvercinkaya (Gülçür 1997), and at the site of Tepeçik-Çiftlik, where investigations have started recently (Bıçakçı 2001). Both sites remain to be dated with radiocarbon dates but have a material culture assemblage akin to that of Köşk Höyük, which would suggest an Early to Middle Chalcolithic date.

I have discussed the research history of the Neolithic and Chalcolithic of Central Anatolia somewhat extensively because it has direct implications for the dataset upon which this study is based. The implications are the following. First, the research into the Prehistory of this area started at a relatively late date, which means that all the sites have been reasonably well excavated, in a period when the field methodology of Near Eastern archaeology was already well established and sophisticated. Second, archaeology has evolved considerably between the 1960s and the present. This means that the datasets available from earlier excavations differ from some of the more recent ones in both scale and quality, and may sometimes be difficult to integrate. This has major consequences in particular for the analysis of the site of the Çatalhöyük. Third, throughout the nineties and up to the present many new excavations have been started in Central Anatolia, and while this creates an exciting field in which to work, the drawback of the fact that so much research is recent is that much remains to be published.

1.2.2 A SYNTHETIC APPROACH

The renewed research into the Central Anatolian Neolithic and Chalcolithic has resulted in a situation in which more researchers are now working on the Neolithic of Central Anatolia than a decade ago. In order to bring together the scholars involved with the subject, a symposium entitled CANeW¹² (Gérard and Thissen eds 2002) was set up, in effect the first meeting dealing with the Neolithic of this region. This should not be interpreted, however, as a ‘maturation’ of this field of investigation. Due to the very fact that much of the recent research awaits publication, the data on which researchers base themselves are often still derived from excavations of the 1960s and 1970s. Only when more recent excavations have been properly published will it be possible to begin to write accounts of the Central Anatolian Neolithic on the basis of current research. Thus, the present study should be seen as a first effort to make sense of the settlements of this region and period and many ideas presented here will probably be discounted with the future progress of our state of knowledge.

Nonetheless, there are good reasons for undertaking a synthetic analysis of the Central Anatolian Neolithic at present. First, in Near Eastern archaeology excavation reports often appear only decades after projects have been terminated, if at all. It is not likely that final reports for most of the sites concerned in this study will appear in the near future. However, the first excavation reports of the new excavations at Çatalhöyük, as well as the data upon which these reports are based, were available for the present study, allowing for a large amount of detailed information on that site to be incorporated.

Second, it is likely that some of the key sites excavated in the 1960s, such as Çatalhöyük and Er Baba, will not be published in the near future, due to factors relating to the personal circumstances of the principal excavators, old age and death respectively, and the condition of the excavation archives: most of the Çatalhöyük archive from the 1960s seems to have been lost in a catastrophic fire.

¹² CANeW, or Central Anatolian Neolithic e-Workshop consisted of a discussion forum via the internet on a number of issues connected to the Central Anatolian Neolithic, and it was followed by a symposium held in Istanbul, on 23-24 November 2002. The results have been published by Gérard and Thissen (2002).

Third, under these conditions it is considered prudent to bring together as much as data as possible in order to generate a systematic database on these older excavations. This may serve as a basis for generating general hypotheses about the Central Anatolian Neolithic that can be used to direct and inform current excavation projects. To my mind the results from the older excavations have too often been dismissed as no longer relevant. In recent years there has been a growing awareness of the quality of some of those data. More important, however, is that the excavations of the 1960s provide us with a very different kind of evidence related to a much more extensive way of digging that can no longer be practiced ethically in modern archaeology, but provides essential data for archaeological reconstructions. In particular, the scale of the older excavations is of crucial importance for the study of complete neighbourhoods and the organisation of settlement space.

Fourth, the challenge today is to bring together the older excavation data, with their problems and their potential on the one hand, with the much more restricted exposures and high quality data from the present projects that allow us to ask more specific questions, on the other. This type of integrative approach is all the more important in a period when archaeologists are becoming more and more fragmented, studying highly specific parts of the archaeological record (Conolly 2000). My metaphor for this situation is that of a picture. The older projects have produced macro-scale coarse-grained pictures that are frustratingly vague when zooming in on details. By contrast, the modern excavations often provide a high-resolution image, but the extent of the image is generally very small. By combining the two types of data a reconstruction can be made that is more sound than one based on either of the two sources in isolation.

1.3.1 THE NEOLITHIC OF CENTRAL ANATOLIA OR THE CENTRAL ANATOLIAN NEOLITHIC?

In the section on the geography and climates of Central Anatolia (§1.1.2), the region has been outlined as geographically distinct from the surrounding regions on the one hand, but internally characterised by a considerable amount of variability with regard to geology, precipitation, and vegetation, on the other. Despite the variety of landscapes that constitute the Central Anatolia it can nonetheless be regarded as a discrete geographical entity. That in itself could be considered an important argument for focusing on the archaeology of this specific region. In addition to this geographical distinction, however, I will argue that there are cultural and chronological differences that set Central Anatolia apart from the surrounding regions in the Neolithic period.

Given the complex nature of the chronologies and terminologies in use for the study of the Near Eastern Neolithic, I have chosen to represent the chronological framework in figure 1.2. What is relevant for the present study is the fact that there is a time lag between the onset of sedentary village life and agricultural economies in the different regions of the Near East. In the Fertile Crescent sedentary village life began in the Epi-Palaeolithic period, as represented in the Natufian culture in the Levant and at the site of Hallan Çemi in the north (Rosenberg 1999; Bar-Yosef and Belfer-Cohen 2002). Good evidence for agriculture seems to emerge only in the EPPNB (Nesbitt 2002; Colledge *et al.* 2004; Nesbitt 2004), and at that time there were also settled villages with agriculture in the Central Anatolian region (Asouti and Fairbairn 2002). Given these chronological parameters, while there is little doubt that many of the cultivars in Central Anatolia ultimately derived from the Fertile Crescent, it is difficult to see the Central Anatolian Neolithic as an offshoot from that in the Fertile Crescent.

To the west of Central Anatolia, in the Lake District, in the Aegean, in the Marmara Region, and in Thrace, the Neolithic sites that have been investigated seem to date from after about 6500 Cal. BC (Thissen 2002a), with the exception of a small sounding at Hacilar that could possibly date to about 8000 Cal. BC.¹³ Thus, the earliest Neolithic in these regions seems to be contemporaneous with the Late Ceramic Neolithic of Central Anatolia, ca. 6600 – 6000 Cal. BC.

¹³ This sounding has been dated with a single radiocarbon date to about 8000 Cal. BC. This date for these deposits has been challenged by Duru (1989) who argues that these levels should be dated to the Ceramic Neolithic period. Although the argumentation used by Duru is flawed in a number of respects (Schoop 2002),

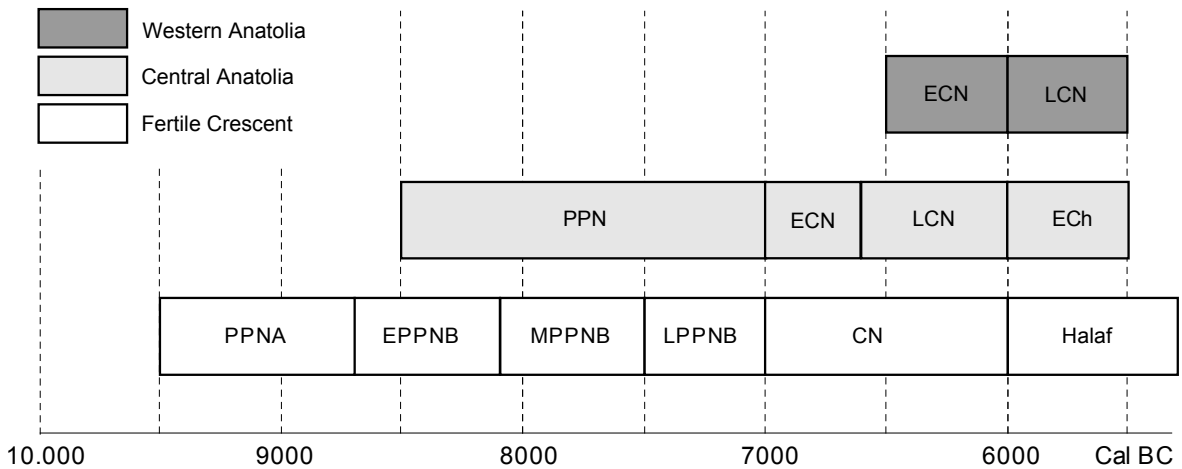


Figure 1.2: Periodization of the Neolithic in the Fertile Crescent,¹⁴ Central Anatolia,¹⁵ and Western Anatolia¹⁶ (Abbreviations: PPNA= Pre-Pottery Neolithic A; EPPNB= Early Pre-Pottery Neolithic B; MPPNB= Middle PPNB; LPPNB= Late PPNB; PPN= Pre-Pottery Neolithic; CN= Ceramic Neolithic; ECN= Early CN; LCN= Late CN; ECh= Early Chalcolithic).

In terms of chronology Central Anatolia occupies a middle ground: some of the components of the Neolithic were derived from the Fertile Crescent, but this occurred at a time that the Neolithic of that area was still in its formative stages. On the other hand, the Neolithic cultures of western Anatolia took shape at a time when the nearby Central Anatolian Neolithic had already been in existence for some two millennia.

To these considerations of chronology we can add an assessment of the differences between the Neolithic assemblages of the regions under consideration, and what these can tell us about Prehistoric mentalities. Comparing Central Anatolia with the Fertile Crescent, archaeologists who have excavated in both regions assert that there are no artefacts or structures in use that exist in both regions (M. Özdoğan 1995, 58; 1999, 229-32; Thissen 2000, 72-3).¹⁷ These differences seem to have existed despite the occurrence of frequent contact between people mediating between these

he may be right that the dating of Aceramic Hacilar needs to be substantiated by more evidence in order to be convincing. The architecture and material culture found in the sounding (Mellaart 1970) do not seem to differ much from those of the Ceramic Neolithic at the site that are to be dated to after 6500 Cal. BC. Given that Hacilar is the only site for which an Aceramic occupation is reported in the Lake District (Harmankaya *et al.* 1997), the possibility that the radiocarbon date is erroneous does not seem unlikely.

¹⁴ After Copeland (2000), Stordeur and Abbès (2002), and Verhoeven (2002a). Note, however, that very divergent chronologies for the PPN-A/PPN-B periodization exist (see Aurenche *et al.* 2001; Kuijt and Goring-Morris 2002). This may reflect the fact that the chronologies differ for sub regions of the Fertile Crescent (Cauvin 1997, 21). For instance, in the Southern Levant a Final PPNB phase is also distinguished (Kuijt and Goring-Morris 2002, 413), but this period is generally not in use for the northern flank of the Fertile Crescent. The chronological scheme in figure 1.2 seems to be the one preferred by scholars working in Northern Syria and South-Eastern Anatolia.

¹⁵ After Özbaşaran and Buitenhuis 2002.

¹⁶ After Schoop (2002), Thissen (2002a), and Çilingiroğlu *et al.* (2004).

¹⁷ For the later periods under consideration, from 7000 Cal. BC onwards, Yumuktepe (Mersin) could potentially bridge the cultural divide between the two regions concerned, because it is located in an intermediate location in the Cilician Plain. Unfortunately the Neolithic layers at this site have been revealed in a very small exposure only that was dug in the 1930s (Garstang 1953). Recent excavations may more shed light on the Neolithic at this site, but remain poorly published (Caneva 1999). Due to these circumstances it is impossible at present to discuss the Early Neolithic of Yumuktepe.

regions. To mention one example, despite the fact that in the Fertile Crescent obsidian from Central Anatolian sources is found in abundance, completely different chipped stone technologies were used in both regions (Balkan-Atlı and Binder 2001, 194).¹⁸ Excavations at Kaletepe, an obsidian-processing site near a source of this material, have uncovered a scatter of obsidian artefacts processed with the chipped stone industry techniques common in the Fertile Crescent, but completely distinct from those in use at contemporaneous sites in the Central Anatolian region (Balkan-Atlı *et al.* 1999b, 142-3).

Similar contrasts between the traditions of both regions can be drawn with regard to burial practices. In the Fertile Crescent secondary treatment of skeletons and parts of skeleton is fairly common, with evidence for skull removal, skull plastering, and the assorting of bones in communal burial locations (Bienert 1991; A. Özdoğan 1999; Kuijt 2000). While there are also some examples of skull removal and plastering in Central Anatolia (Öztan 2002; Boz and Hager 2004), this type of practice is rare in Central Anatolia, where intramural sub-floor burials are the norm.

Most relevant in the context of the present study are the differences in architectural practices in both regions. The houses in Southeast Anatolia are seemingly built according to a rigid set of rules determining proportions and orientation. These buildings replicate each other in almost every respect (A. Özdoğan 1999). By contrast, the buildings of Central Anatolia are much more varied in their size, form, number of rooms, orientation, and so on. There are certainly normative aspects in the building practices of Central Anatolian Neolithic structures, in particular relating to the interior arrangement of features, and their reference to predecessor buildings, but otherwise the settlements of Central Anatolia seem to be characterised by a seemingly organic, cellular, manner of building, that is most clearly demonstrated at sites such as Aşıklı Höyük, Canhasan III, Çatalhöyük, and Canhasan I.

Finally, the organisation of the communal domain can be mentioned. In the northern flank of the Fertile Crescent buildings are as a rule free standing, so that each structure can be approached via open space. There are also some examples of courts in some of the settlements, for instance at Hallan Çemi (Rosenberg 1999) and at Çayönü (A. Özdoğan 1999), and a kind of large podium was found at Tell Sabi Abyad II (Verhoeven 2000a). The settlements of Central Anatolia are organised in an entirely different fashion. The individual buildings are mostly constructed directly adjacent to one another, with an occasional midden area interspersed between them. Doors to open areas are rare, and the normal way of accessing buildings was via a ladder from the roof. The communal domain in the Neolithic settlements of Central Anatolia is consequently completely different in character from that of the northern Fertile Crescent.

The relations of the Central Anatolian Neolithic with the regions to the west, including the Lake District, the Aegean, and the Marmara Region, are less simple to define. Here there are both similarities and differences in the assemblages that have been found with the region of Central Anatolia. Whether the particularities of the different regions are emphasised, or shared traits are considered more important, is partly a matter of judgement in this situation. The matter is complicated by the fact that in the period of ca. 6600 – 6000 Cal. BC, which seems to be the initial Neolithic period in Western Anatolia, many changes seem to occur in the Late Ceramic Neolithic of Central Anatolia that are poorly understood at present (Düring 2002).

Thissen (2000, 154-6) has recently argued for a cultural disjunction between the sites of Central Anatolia on the one hand, and those of the Lake District on the other. In his view there are substantial differences between the ceramics from both regions, as well as the chipped stone industries and the organisation of the settlement space. Umurtak (2000, 695-6) has argued that the buildings of the Lake District Neolithic form a well-defined group, with a series of particular traits, and as such can be clearly separated from those of the Central Anatolian Neolithic. The two regions

¹⁸ Recently, phytoliths of the date palm, which does not grow in Anatolia, have been found at Çatalhöyük (Rosen 2005, 207). Further, Red Sea shells have been identified at the site (Reese 2005, 126). These are indications that goods were also transported from the Levant to Anatolia.

also differ from each other in respect to burial traditions. Whereas intramural burials are fairly common in the Central Anatolian Neolithic, they are rare in the Lake District sites (Mellaart 1970, 88-91). Finally, the Neolithic of the Lake District as a whole is often presented as a homogeneous and distinct cultural unit that can be clearly separated from that of Central Anatolia (R. Duru 1999; 2002).

Other regions in Western Anatolia with Neolithic horizons are the Aegean and the Marmara regions. Both are far removed from Central Anatolia. In the Aegean, excavations at the site of Ulucak Höyük (Çilingiroğlu *et al.* 2004) and regional surveys (Lichter 2002) have started to illuminate a Ceramic Neolithic that can be dated between ca. 6000 and 5500 Cal. BC. In the Marmara region and Thrace the Neolithic period is better known. A key site in the Marmara region is Ilıpınar (Roodenberg 1999; Roodenberg and Thissen eds 2001). The surveys and small-scale excavations carried out by Özdoğan in Thrace (see Özdoğan and Gatsov 1998) have also been important for our understanding of the Neolithic in this region.

These Neolithic horizons are difficult to connect to the Central Anatolian Neolithic. One reason for this is that there is a large geographically intermediate area between the seaboard and Central Anatolia where virtually no research has taken place so far. Second, the best-known sites in both regions have occupations starting after 6000 Cal. BC. For the Marmara Region this gap has been filled by a deep sounding at the site of Menteşe (Roodenberg *et al.* 2003), but the exposure there has been very restricted in size. Third, and most importantly, the assemblages of Central Anatolia that are contemporary with those of the Marmara Neolithic and the Aegean Neolithic seem to be unrelated to the assemblages found in those regions. When similarities are noted these are most often with either the Lake District or the Balkans (Roodenberg 1999; Özdoğan 2000, 168;¹⁹ Roodenberg *et al.* 2003; Çilingiroğlu *et al.* 2004). To summarise the points mentioned by these authors: figurines are of a completely different style, and seem to relate to the Balkan cultural complex rather than to that of Central Anatolia; the chipped stone industries diverge from those in Central Anatolia; the architectural traditions differ in many respects from building practices in Central Anatolia, and pottery comparisons between the regions are of a speculative nature at best.

To summarise the cultural relations discussed above: it seems that the Central Anatolian Neolithic is clearly distinct from that of the Fertile Crescent, whereas the relations with the west are more complicated, including both similarities and differences. Many researchers would argue for cultural disjunctions between Central and Western Anatolia nonetheless. Thus it would appear that the Central Anatolia was a region with distinct traditions in the Neolithic period as reflected in its material culture, and it is appropriate to talk about the *Central Anatolian Neolithic*.

At the same time I would like to stress that the Central Anatolian Neolithic is not a ‘culture’ in the sense of Childe, consisting of “certain types of pots, implements, ornaments, burial rites, house forms – constantly recurring together” (Childe 1929, v-vi), which were once thought to represent distinct cultures and peoples. It is plausible that the distinctiveness of the Central Anatolian Neolithic is in part a product of archaeological research, one that will be eroded in future investigation, when more sites in intervening areas will be excavated (Clarke 1968, 230). For this reason I prefer to speak of a Central Anatolian Neolithic horizon rather than a culture complex.²⁰

¹⁹ In contrast to earlier arguments by the same author (Özdoğan 1989; Özdoğan *et al.* 1991; Özdoğan 1998).

²⁰ Shennan (2002, 79) proposes that in some cases we can recognise ‘cultural cores’, that can be defined as: “traditions whose components stick together over time and provide a basic cultural framework.” Along similar lines Rosenberg (1994) has proposed the concept ‘Bauplan’, consisting of a group of tightly linked elements that define a culture that cannot be changed easily and constrain innovation leading to a situation of stasis. In the case of the Central Anatolian Neolithic such concepts might have some validity given the remarkable persistence of some configurations over several millennia, exemplified for instance in the settlement forms that form the subject of this study. However, I would hesitate to adopt a position in which cultures are envisaged as essentially static and bounded (Shennan 2002, 85, fig. 10). I would argue that an essential component of cultures is that they are always in a state of flux, and are difficult to delineate both

However, given the current state of knowledge it seems appropriate at present to take the Central Anatolian Neolithic as an object of study. Moreover, examples of the particular type of clustered neighbourhood settlements that are the focus of this study have only been found in Central Anatolian Neolithic sites.

1.3.2 CHRONOLOGY AND TERMINOLOGY OF THE CENTRAL ANATOLIAN NEOLITHIC

In this section the chronology and terminology in use to describe the Central Anatolian Neolithic will be discussed. In the previous section I have already demonstrated that the developments in Central Anatolia followed a separate trajectory from those of the surrounding regions and this has led to the need for a distinct chronological framework for the region (see fig. 1.2). This periodization has been frequently revised over the last decades, but it seems likely that the present chronological subdivision will not be altered much in future years, at least with regard to the absolute chronology.

This confidence in the absolute chronology derives from four recent developments: first, many more radiocarbon dates are available today than in the past; second, recent radiocarbon samples have been selected with much greater care for contextual issues and with an awareness of the pitfalls of the radiocarbon technique; third, the technique of Accelerator Mass Spectrometry for radiocarbon dating makes it possible to date small and short lived samples, such as seeds, and most recent samples are of this kind because they allow for more reliable dating; and, finally, recent work in the field of dendrochronology provides yet another good tool for chronological purposes (Kuniholm and Newton 1996; Newton and Kuniholm 1999; Cessford 2002; Thissen 2002a; Cessford in prep-a).

In the periodization applied to the Prehistory of Central Anatolia there is a certain discrepancy between the existing terminologies, in which the absence or presence of certain elements of material culture is used to designate a period, as for instance in 'Aceramic Neolithic', and the actual assemblages found. For instance, the term Chalcolithic has become associated with the appearance of painted pottery rather than the introduction of copper artefacts, which can now be traced back to the Aceramic Neolithic (Esin 1995; A. Özdoğan 1999). Moreover, the temporal boundaries of the traditional periodization are not necessarily drawn at the most informative junctions of the culture-historical sequence (Özbaşaran and Buitenhuis 2002). Despite these drawbacks to the existing periodization, it has the advantage over alternative terminologies in that it is immediately clear what period and which sites are meant.²¹

The Neolithic of Central Anatolia is subdivided as follows (see fig. 1.3). The period between 10.200 and 8500 Cal. BC has only recently begun to be investigated at the site of Pınarbaşı (Baird 2004). So far, only short reports have appeared on these excavations, but it is probable that some levels at this site belong to the Epi-Palaeolithic (*cf.* Baird 2002, 142-3).²²

The first period for which we have systematic evidence in Central Anatolia is that of the Aceramic Neolithic, lasting from about 8500 to 7000 Cal. BC. The sites that can be assigned to this period are Pınarbaşı A, Aşıklı Höyük, Kaletepe, Musular, Suberde, Canhasan III, and Çatalhöyük. In my perspective the one-and-a-half millennia of the Aceramic Neolithic can be further subdivided as follows. First, we can distinguish the period between 8500 and 8000 Cal. BC. For this period we have limited exposures from the sites of Pınarbaşı A and Kaletepe. At both sites only insubstantial features and deposits can be dated to this period. The evidence for the third site that we can assign to this stretch of time, Aşıklı Höyük, has not been published for these early levels. Second, in the

geographically: where does one culture 'end' and another 'begin'? , and temporally: at what point can we start to speak of 'Dutch culture'?

²¹ see the discussion section in Özbaşaran and Buitenhuis 2002.

²² In the Mediterranean Littoral the cave sites of Beldibi, Öküzini and Karain, near Antalya, have provided Upper Palaeolithic occupation remains, which have so far not been found in other parts of Anatolia (Esin 1999, 17; M. Özdoğan 1999, 226).

period between 8000 and 7500 Cal. BC the main occupation phase of Aşıklı Höyük can be dated, which is well known due to the systematic excavation of these levels. Following that, between 7500 and 7000 Cal. BC we can date the deposits excavated at Canhasan III, Suberde, Musular, and the pre-level XII deep sounding at Çatalhöyük. For this period, the evidence from Suberde and basal Çatalhöyük is of a restricted nature, and it is mainly to the sites of Canhasan III and Musular that we can turn for a comprehensive picture.

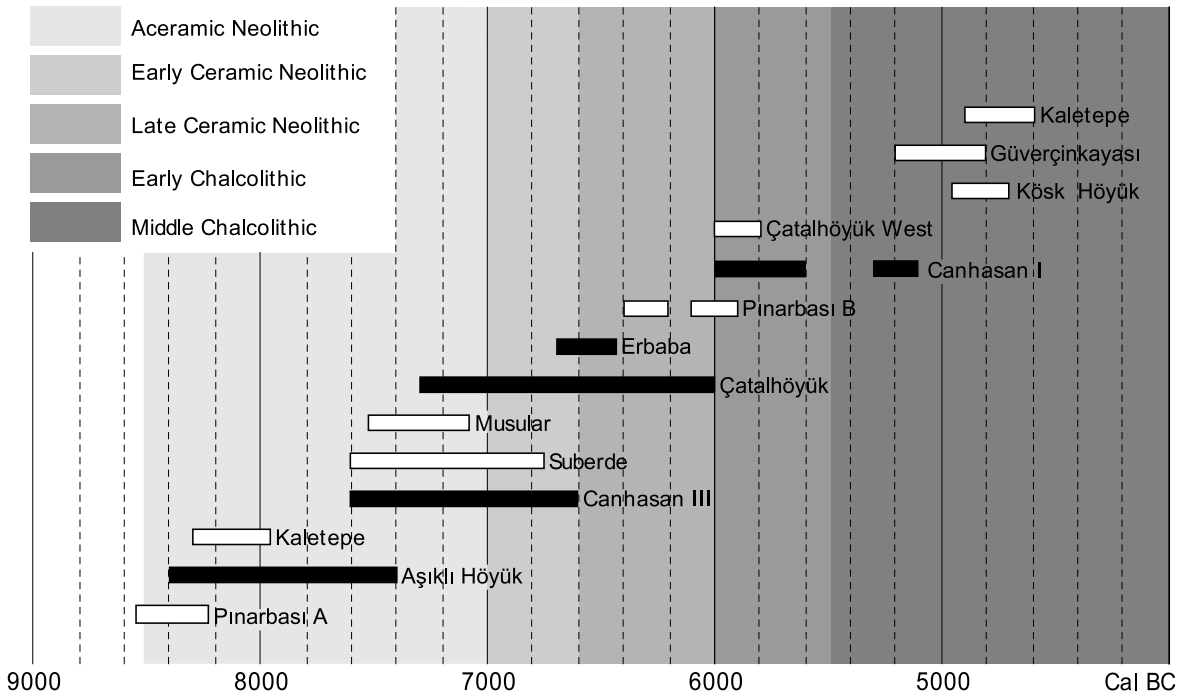


Figure 1.3: Periodization of the Central Anatolian Neolithic (in shades of grey), and the calibrated radiocarbon ranges of the excavated sites in the region. Sites of particular importance to this study are represented in black.²³

The next culture historical period in Central Anatolia is that of the Ceramic Neolithic, to be dated from 7000 to 6000 Cal. BC, and generally subdivided into the Early Ceramic Neolithic, between 7000 and 6600 Cal. BC and the Late Ceramic Neolithic, between 6600 and 6000 Cal. BC. In Central Anatolia only a few sites can be dated to these periods, including Pınarbaşı B, Erbaba, and Çatalhöyük. The evidence from Pınarbaşı B and Erbaba is of a restricted nature, and our main body of evidence derives from the site of Çatalhöyük, where we can see major changes in the material culture at the transition between levels VI and V, a transition that can be dated to about 6600 Cal. BC, and this shift is used to divide the Early and Late Ceramic Neolithic (Düring 2002). The end of the Late Ceramic Neolithic is tentatively placed at 6000 Cal. BC (Özbaşaran and Buitenhuis 2002).

Following the Ceramic Neolithic is the Chalcolithic period, which is usually subdivided into the Early Chalcolithic, between 6000 and 5500 Cal. BC, the Middle Chalcolithic, from 5500 – 4000 Cal. BC, and the Late Chalcolithic, from 4000 – 3500 Cal. BC. In this study the Early Chalcolithic will be included because it is felt that there is a great amount of cultural continuity with the preceding Late Ceramic Neolithic. The Middle Chalcolithic is a period that is still poorly

²³ This figure is based primarily on Thissen (2002a) augmented with data from Cessford (in prep-a), Öztan and Faydalı (2003), and recent additions on www.canew.org.

researched and understood, but it seems clear that a major break occurs between this period and the Early Chalcolithic (French 1998, 65-9). In the case of the 'Chalcolithic' as a denominator, the periodization terminology seems to obscure rather than clarify cultural disjunctions.²⁴ The Early Chalcolithic period is known from the sites of Pınarbaşı B, Çatalhöyük West, and Canhasan I. At present the best evidence for this period derives from the Canhasan I publications, but renewed excavations at Çatalhöyük West will add considerably to our knowledge of this period over the coming years.

1.3.3 SKETCH OF THE ACERAMIC NEOLITHIC OF CENTRAL ANATOLIA²⁵

The Aceramic Neolithic period is primarily documented at Aşıklı Höyük, which has become the typesite for the period, even though it has been excavated recently (from 1989 to the present) and has been published in short preliminary reports only. Other sites such as Kaletepe, Musular, Canhasan III, and Pınarbaşı A provide important additional information on this cultural horizon. Although it is the type-site for this period, Aşıklı Höyük is probably not a typical Aceramic Neolithic site: it is much larger than the other sites investigated so far, and monumental buildings were found at this site that are mostly absent from the other sites of the period.

Aşıklı Höyük is located in the volcanic region of Cappadocia. One of the materials related to this volcanism is obsidian. Cappadocian obsidian has been found in Southeast Anatolia, Northern Syria, and even in the Levant (Renfrew *et al.* 1968). Given the close proximity of Aşıklı Höyük to some of the major obsidian sources of the region some have interpreted the site as a centre of obsidian trade (Jacobs 1969; Esin and Harmankaya 1999, 117; Thissen 2000, 100). This interpretation was also based on the idea that the obsidian trade was related to the relatively large size of Aşıklı Höyük of ca. 4 ha.

To investigate the relation between Aşıklı Höyük and the obsidian exchange network, a project was set up to study the exploitation of the Central Anatolian obsidian sources (see Balkan-Atlı *et al.* 1999b). This project involved a reconnaissance of obsidian sources and obsidian knapping locations near those sources. The artefacts that were collected in that survey were studied and compared to those known from excavations. Further, the obsidian from the sources was chemically analysed and compared to obsidian found at excavations such as those of Aşıklı Höyük. Finally one of the knapping locations, Kaletepe, was excavated, to shed new light on how obsidian was exploited at that location.

The results of these investigations were remarkable. The obsidian artefacts at Aşıklı Höyük, which form 100 % of the chipped stone assemblage (Balkan-Atlı 1994), constitute an assemblage with a typology and technology that is totally unrelated to that of the PPN-B (Balkan-Atlı and Binder 2001). Using chemical component analysis the obsidian used at Aşıklı Höyük has been traced to the Kayırlı and Nenezi Dağ obsidian sources (Gratuze *et al.* 1994). Other obsidian sources, such as Kaletepe were in use, it seems, for export to the Fertile Crescent only (Balkan-Atlı *et al.* 1999b, 138-9). Thus no direct link could be established between Aşıklı Höyük and the obsidian exports to the Near Eastern region.

The subsistence economy of Aşıklı Höyük is based on a combination of strategies. Hunting and collecting of wild plant resources is still of great importance, although the main component of the diet seems to be constituted by domestic crops, such as cereals and pulses (Van Zeist and de

²⁴ In other parts of the Near East contemporary horizons similar to the Central Anatolian Early Chalcolithic have been reassigned from the Chalcolithic to the Late Neolithic. For instance, Caneva (1999, 109) uses the term 'Late Neolithic' to denote the period between ca. 6000 – 5500 Cal. BC in Cilicia. Further east the Halaf, which was placed in the Chalcolithic some decades ago, has been reassigned to the Neolithic (Akkermans and Schwartz 2003), and the Chalcolithic starts with the Ubaid at ca. 5300 Cal. BC.

²⁵ An outline of the Central Anatolian Neolithic will be sketched. An effort to synthesise the Central Anatolian Neolithic systematically is beyond the aim of this chapter (for syntheses of the Neolithic in the area the reader is referred to Mellaart 1975, and Özdoğan and Başgelen eds 1999). Here a general discussion will be presented, focusing on the architectural evidence.

Roller 1995; Asouti and Fairbairn 2002, 184-5). The faunal assemblage at the site is dominated heavily by ovicaprids, although cattle and pig are also common. None of these animals were domesticated, but Buitenhuis (1997) has argued that sheep and goat were herded on the basis of the cull patterns of these animals.

Amongst the most conspicuous characteristics of Aşıklı Höyük is the form of its settlement. At Aşıklı Höyük the earliest example of what has been coined ‘the Central Anatolian model’ (Özbaşaran 2000, 135) has been found. In this study I will use the phrase ‘clustered neighbourhood settlements’ as a denominator for these settlements.²⁶ The settlement of Aşıklı Höyük is one in which the individual buildings were built closely together in neighbourhood blocks, to such a degree that streets are more or less non-existent. Interspersed between these neighbourhoods are large midden areas, which were used for dumping refuse. The neighbourhoods are further separated from one another by streets and alleys.

Apart from the neighbourhood blocks consisting of small loam structures, and the narrow alleys that separate them from one another, there are also more monumental features at Aşıklı Höyük. These include a broad paved street, and a large and monumental central complex. Another unique feature of Aşıklı Höyük is the existence of a number of smaller ‘satellite’ sites surrounding the site. These are Musular, Yellibelen, Acıyer, and Gedikbaşı / Kızılkaya (Gülçür 1995; Balkan-Atlı 1998, 81; Özbaşaran 2000, 129), all of which, except for Acıyer, are located within a 1 kilometre radius of Aşıklı Höyük. It is not clear at present whether these sites were contemporary with the latest occupation of Aşıklı Höyük, in which case they would have functioned as a kind of subsidiary settlements, or whether they postdate Aşıklı Höyük (Balkan-Atlı 1998, 87), in which case they might have been locations where the Aşıklı Höyük inhabitants settled after the abandonment of the site.

Buildings at Aşıklı Höyük were constructed with loam slabs, except for the monumental complexes at the site, which have stone walls. It is plausible that these stone walls were foundations only, and supported a loam superstructure. The buildings without such stone foundations are generally founded on the walls of earlier buildings. Floors and walls were frequently plastered. The buildings at Aşıklı Höyük vary somewhat in size and shape, due to the fact that many buildings were fitted in between pre-existing structures. Most buildings seem to have had two rooms. In some cases a carefully constructed hearth paved with pebbles was found in these structures. Beneath the floors of buildings some of the deceased were buried.

The central complex surrounding court HV has an elaborate floor in room T, which also has a round hearth (see §4.2.1). This building further stands out because of its stone foundations, its thick walls, and the use of posts.

On the opposite bank of the river on which Aşıklı Höyük is situated is the site of Musular. The site was excavated by a team from Istanbul University from 1996 to 2004. Archaeological remains of two periods were found: a first, Aceramic Neolithic occupation, dated to about 7500 – 7000 Cal. BC; and a second set of remains that have been tentatively assigned to the Late Ceramic Neolithic on the basis of the pottery found.²⁷ Musular has relatively shallow archaeological deposits of about 80 centimetres, and most of this has been disturbed by recent land use. The excavations have mainly focussed on an oval depression in the bedrock, in which the archaeology was more intact. Even in this depression preservation is poor, and as a result the features and stratigraphy of the site are mostly incomplete and difficult to interpret.

²⁶ The Central Anatolian Neolithic settlements have often been called ‘agglutinative’. Such a designation is not accurate, however (*cf.* Eichmann 1991, 45; Esin *et al.* 1991, 145). To agglutinate is to add (or glue) elements to an existing form, the applied elements are adjective and modify the earlier form. In the case of the settlements under consideration autonomous units are constructed in between or adjacent to the existing buildings, a process which starts with a few buildings, and results in a high density settlement organised in neighbourhood clusters.

²⁷ Özbaşaran stresses that this date is tentative, and requires further investigation (1999, 151; 2000, 133).

The structures at Musular dating to the Aceramic Neolithic are built mainly with stones, and include features that were associated with the monumental complex HV/T at Aşıklı Höyük, such as painted floors, the use of posts and a circular hearth. In addition, a number of drain-type features have been found at Musular that are difficult to understand. The interpretation of the excavators of the site is that it served as a special purpose satellite to the inhabitants of Aşıklı Höyük (Özbaşaran 2000, 134). With the evidence at hand it is difficult to evaluate this proposition: there is a possibility that Musular postdates the occupation of Aşıklı Höyük altogether.

Apart from the sites of Aşıklı Höyük, Kaletepe, and Musular the Aceramic Neolithic has also been investigated at Pınarbaşı A, Suberde, Canhasan III, and at Çatalhöyük. At this latter group of sites excavations have been limited in extent and in some cases very little has been published. As a result these sites are mostly relevant for specialists dealing with chipped stone industries, while little can be added to this brief overview. At Çatalhöyük pre-level XII-E to A can be assigned to the final part of the Aceramic Neolithic. The deposits consist of midden material and remnants of lime burning, which was most likely related to the construction of lime plastered floors at a nearby location.

Despite the fact that investigations have been of limited extent at Canhasan III too, this site is important to our understanding of the Aceramic Neolithic in Central Anatolia. At Canhasan III, which is to be dated to the final part of the Aceramic Neolithic, excavations were limited to a few soundings (ca. 40 m²), but a large settlement exposure was obtained by means of surface scraping, by which method a plan was obtained measuring 20 by 30 metres. The building plan obtained is that of dense settlement, interspersed with narrow alleys and courts. This is another instance of the 'clustered neighbourhood' settlements that are of central concern to this study. Buildings vary considerably in size, and sometimes in their number of rooms. As in Aşıklı Höyük party walls are absent, and building units can be easily distinguished. Walls were constructed with loam slabs, floors were built using pebbles and loam, and were sometimes painted red.

1.3.4 SKETCH OF THE CERAMIC NEOLITHIC OF CENTRAL ANATOLIA

The type-site for this period in the Central Anatolian Neolithic is Çatalhöyük East (henceforth simply Çatalhöyük). Another site that we can possibly assign to this period is Erbaba. This site has been poorly published, and the following discussion will consequently mainly focus on the evidence from Çatalhöyük.

With its 13 ha, Çatalhöyük is one of the largest sites currently known from the Near Eastern Neolithic (Moore *et al.* 2000, 4; Hodder and Cessford 2004, 17). During the 1960s Mellaart excavated large areas in the southwestern part of the site, uncovering a series of moulded features and paintings on house walls that made the site famous. In the course of his excavations Mellaart distinguished building levels I-XII, from top to bottom (level VI was later subdivided into VIA and VIB). In the new excavations at the site, pre-level XII E to A (top to bottom) has been added to this sequence, and these strata can be assigned to the final part of the Aceramic Neolithic. Buildings levels XII to VI constitute the Early Ceramic Neolithic at the site, and level V-I can be dated to the Late Ceramic Neolithic. This periodization of the sequence is somewhat arbitrary in that there are no marked ruptures in the sequence, but nonetheless there are good arguments for this subdivision relating to changes in material culture and cultural practices. The Ceramic Neolithic levels can be dated from about 7000 – 6000 Cal. BC.

The economy of Çatalhöyük seems to be similar to that of Aşıklı Höyük in many respects. Wild plant resources, predominantly nuts, were eaten alongside cultivated cereals and pulses (Asouti and Fairbairn 2002; Fairbairn *et al.* 2005).²⁸ In the faunal assemblage, sheep and goat make for the large majority of bones, and cattle, pig and equids are also consistently present. The sheep and goat were domesticated, but the cattle were not (Martin *et al.* 2002; Russell and Martin 2005,

²⁸ Compare also Van Zeist and Buitenhuis (1983) for contemporary Erbaba, where wild plant resources seem to have been less important.

55). This latter conclusion has been reached in recent years and overthrows the earlier hypothesis formulated by Perkins (1969) that cattle were domestic at the site.

The large areas that have been excavated at Çatalhöyük have provided a window on the spatial layout of this clustered neighbourhood settlement. The neighbourhoods are comprised of a dense association of buildings, interspersed with midden areas. The individual buildings are constructed of loam slabs, each structure with its own outer set of walls, and were entered via the roof, as is demonstrated by plaster negatives in the floor and wall plaster. Considerable variation in the roof elevations of contemporary adjacent buildings existed, at least if the floor elevations of buildings can be used as an indication. Thus the roofs at Çatalhöyük would have presented a fragmented interface, and many ladders would have had to be ascended or descended to reach a centrally located building. The buildings were generally founded on walls of earlier buildings. The walls and floors were plastered with loam on a regular basis. Along the interior walls of the buildings posts were placed, although these are replaced by buttresses in the latest building levels. The interior furnishing of these buildings followed a more or less standardised spatial organization. In the northeastern part of the main rooms one typically finds a number of platforms, whereas the southern part of the room was normally where the hearth, oven and ladder were placed.

In addition to features such as platforms, hearths and ladders, that are related to domestic practices, some buildings also contain sub-floor burials, wall paintings and moulded figures attached to the walls. Confronted with the often spectacular wall paintings and mouldings Mellaart interpreted these buildings as shrines. Re-investigating what these features tell us about the status of the buildings in which they were found is one of the main aims of this study, and will be dealt with in chapter 6.

Another reason why Çatalhöyük is of special interest is that a sequence of large settlement exposures excavated in the same area can be investigated. Thus the settlement at Çatalhöyük can be studied both synchronically and diachronically. In this way developments through time can be monitored in the settlement of Çatalhöyük. A major diachronic development is the transition from a settlement without public space, in levels VII, VIB, and VIA, to one with a limited amount of public space, in levels V, IV, III, and II, (see Düring 2001).

Apart from the organisation of space in the settlement, a series of practices seem to change around level V at Çatalhöyük (Düring 2002). These concern: first, the ceramics, which became much more common from level V onwards, their body thickness decreases, firing is better controlled, and grit replaces mineral temper (Mellaart 1966, 170; Last 1996, 120; Thissen 2000, 83); second, obsidian industries, in which there is a sharp increase of prismatic blades pressure flaked from bullet cores after level VI (Conolly 1999b, 797); third, in the figurines, male figures are no longer represented after level VI (Hamilton 1996, 225; Voigt 2000, 287-90); fourth, the painting motifs change after level VI, for instance the so-called hunting scenes all post-date this level (Mellaart 1967, table 13; Voigt 2000, 278); and fifth, no figurative mouldings have been found in levels V-I (Todd 1976, 50).

Taken together these developments suggest significant changes at Çatalhöyük around the level VI to V transition, which constitutes the distinction between the Early and Late Ceramic Neolithic in Central Anatolia. Whether the developments that occur at Çatalhöyük are mirrored at other sites is difficult to tell. The only other excavated site where the same period has been investigated is Erbaba, a small settlement on the shores of Lake Beyşehir. Unfortunately, little has been published on the site and its stratigraphy, which makes comparison impossible. What is clear is that the settlement of Erbaba was in many ways similar to that of Çatalhöyük. Here too, the buildings were clustered together, although they were constructed from stone. Unfortunately, the exposure of Erbaba is too limited and fragmented to move beyond this characterisation.

1.3.5 SKETCH OF THE EARLY CHALCOLITHIC OF CENTRAL ANATOLIA

This period has been investigated through excavations at Canhasan I, Çatalhöyük West, and at Pınarbaşı B. Of these sites, Canhasan I has been investigated most systematically, from 1961 to

1967. This was done by David French and his team, and a series of reports have appeared, including two final reports (French 1962; 1963; 1964; 1965; 1966; 1967; 1998; 2005). Çatalhöyük West has been sounded by Mellaart who published a short report (1965a), and renewed excavations are taking place at the site since 1998. Likewise, Pınarbaşı B is still being excavated, and only brief reports have appeared on the site so far.

In terms of subsistence economy, the Early Chalcolithic seems largely similar to the preceding Ceramic Neolithic, with similar mixed food procurement strategies. At Çatalhöyük West, sheep and goat dominate the faunal assemblage, and may be somewhat larger than in the preceding period (Frame 2001). What seem to be lacking from both Çatalhöyük West and Canhasan I are spindle whorls, suggesting that wool was not important. The cattle at Çatalhöyük West may have been smaller than in the Neolithic, which could indicate domestication, but this hypothesis requires further analysis (Gibson *et al.* 2002).

From surveys it has become clear that in the Early Chalcolithic sites became much more numerous than in the preceding Ceramic Neolithic. However, the size of the individual sites is, as a rule, much smaller (Baird 2002, 147). This suggests that people related to the landscape differently than in the preceding period.

The Early Chalcolithic is marked by the appearance of a variety of painted pottery styles, most often reddish brown motifs on a buff body. The painted motifs are in most cases geometric, most often taking the form of chevrons, lozenges and wavy lines. There is a considerable variation in style, for instance the pottery from Canhasan I differs from that found in Çatalhöyük West, and both differ from the contemporary painted pottery from sites in the Lake District such as Hacilar and Kuruçay. Apart from the fact that the pottery of the Central Anatolian Early Chalcolithic is painted, it is also of high quality, evenly fired, and some vessels are of very large sizes. The firing conditions in which these vessels were produced must have been carefully controlled (Mellaart 1965a; Last 2000).

At Çatalhöyük West the so-called ‘pot stands’ are also characteristic for the Early Chalcolithic. These are L-shaped clay objects, often with geometric incised decoration, that probably served in pairs of three to four to support pots. These objects have not been reported at Canhasan I, but at Çatalhöyük East a pot stand has also been found in the TP Area (Czerniak and Marciniak 2003). Recent unpublished radiocarbon dates have pushed the dates of the east mound up to ca. 6000 Cal. BC (Marciniak personal comment), and likewise unpublished radiocarbon dates from Çatalhöyük West (Göktürk *et al.* 2002; Last personal comment) have pushed the date of that mound back to about 6000 Cal. BC. This means that for the Çatalhöyük cluster there seems to be a gradual transition from Ceramic Neolithic to Early Chalcolithic, although this transition is still poorly investigated.

At Canhasan I this transition is much better documented. The sequence there was subdivided into layers 1-7 (top to bottom). According to French (1998, 20) layers 7-4 should be assigned to the Late Ceramic Neolithic, 3 is Early Chalcolithic, 2B is transitional Early to Middle Chalcolithic, 2A is Middle Chalcolithic, and layer 1 is Late Chalcolithic (but see §8.1.3). The radiocarbon dates from the site derive from layers 2B and 2A and give a range of 6000 – 5500 Cal. BC, while the older layers 7-3 remain undated. According to the standard periodization of Central Anatolia layers 2B and 2A should both be assigned to the Early Chalcolithic rather than the Middle Chalcolithic, while layer 3 dates to the either the end of the Ceramic Neolithic or the beginning of the Early Chalcolithic.

From the Neolithic to the Chalcolithic layers at Canhasan, a transformation of the building practices can be observed, during which loam bricks became more standardised and of better quality, and buttresses and posts are introduced. Although the evidence at sites such as Çatalhöyük West is not as clear-cut as that from Canhasan, similar developments in building technology seem to occur there. There is a strong case that these changes are related to the construction of upper storeys at these sites. In level 2B at Canhasan I some of the buildings were preserved up to 3 metres in height, and in one building a small wall fragment with painted plaster that clearly belonged to

the upper storey was found. The plan obtained of level 2B at Canhasan I seems to represent the basements of the settlement (note that no hearths and ovens were found in them) whereas the upper storey would have functioned as the main living quarters (as evidenced in the painted plaster). Despite the appearance of upper storeys at Canhasan I, the clustered neighbourhoods still persisted at the site. According to currently available evidence, Canhasan I is the latest settlement of this kind in the Prehistory of Central Anatolia.

1.4.1 THE CLUSTERED NEIGHBOURHOOD SETTLEMENTS OF THE CENTRAL ANATOLIAN NEOLITHIC

This study is an analysis of a type of settlement occurring in the Central Anatolia Neolithic that will be designated ‘clustered neighbourhood settlement’. The earliest settlement of this type for which we have evidence is that of Aşıklı Höyük, followed by those at Canhasan III, Çatalhöyük, Erbaba, and finally, Canhasan I (Özbaşaran 2000, 135). The time span involved is about 3000 years, running from 8500 – 5500 Cal. BC, and the individual sites are often located hundreds of kilometres apart from one another. In these circumstances it should not come as a surprise that the individual settlements in this study differ greatly from each other in a great many respects. Hidden beneath an overall similarity there are fundamental differences in the manner in which the settlements are spatially and socially configured. In this study it will become apparent that the form-follows-function maxim does not apply in the case of the Central Anatolia Neolithic.

Nonetheless the ‘clustered neighbourhood settlements’ of the Central Anatolian Neolithic, as a group, are the topic of this study. There are several grounds for this delineation of the subject. First, the clustered neighbourhood settlements of the Central Anatolian Neolithic are highly particular, both in the context of the Near Eastern and European Neolithic, and in a wider cross-cultural comparative perspective.²⁹ As such, this exceptional settlement type warrants a thorough analysis. Second, it is plausible that in the Central Anatolian Neolithic people were deliberately reproducing a settlement type that was of great significance to them. Given that this type of settlement structured people’s lives in a very tangible way, it must have had profound effects on their social lives. The ways in which the settlement space is organised in the Central Anatolian sites is comparable in many respects for all the sites involved, and this calls for a study of this group as a whole. Third, in order to fully understand any of the individual clustered neighbourhood settlements, it is essential to comprehend in what ways they differ from the other settlements, and in which respects they are part of a larger tradition.

The characteristics of the clustered neighbourhood settlements of the Central Anatolian Neolithic are the following. First, the individual structures are grouped into larger clusters of buildings. The buildings are often constructed directly adjacent to one another, and no space is left for linear interconnected spaces that might have served as streets. There are, however, open areas within neighbourhood blocks, and these are best seen as ‘negative spaces’ as far as communication is concerned. They are generally used for the disposal of domestic refuse or for penning purposes, and are best designated as ‘midden’ areas. The neighbourhood blocks are separated from one another by streets, large courts and alleys. In some cases the definition of neighbourhoods may have been diffuse and difficult, depending on the specific configuration of buildings.

Second, the individual buildings within neighbourhoods are constructed with their own outer set of walls, despite the fact that buildings are directly adjacent to one another. This manner of building may have been preferred to facilitate the repair and reconstruction of structures on an individual basis. The buildings are characterised by a great degree of continuity, with the walls of the preceding structure used as a foundation for the new building.

²⁹ Comparisons have often been drawn to Pueblo settlements in the Southwestern United States (Stea and Turan 1993; Cutting in prep), and I will draw a parallel to recent Near Eastern villages in this study (chapter 2), but in both instances the analogy holds good only in some respects, and fails in others.

Third, the buildings of these settlements as a rule lack external doors, even in those cases where buildings border directly on large open spaces, such as streets or alleys.³⁰ On the other hand, there is ample evidence that buildings were accessed from the roof level with ladders. Thus accessing these buildings involved climbing to the roof level with a ladder at the edge of the neighbourhood block, moving to the roof of the building of destination, which often involved crossing a number of adjacent and vertically differentiated roofs, and, finally, descending a ladder into the room below.

It is not difficult to see that: first, this type of spatial arrangement of the settlement must have had profound effects on the social interaction of people living in them; and, second, that there must have been a preference for this type of spatial arrangement in Central Anatolian Neolithic society, sanctioning this form of settlement over others that would have been more practical in terms of access and transport. The basic questions of this study follow from these two premises: first, in what manner did the spatial form of the clustered neighbourhood settlements affect the daily life and social interaction of their inhabitants?; and, second, what can we say about the mentalities that made people prefer this type of spatial organisation over others? It will appear from this study that the answer to the first question is more or less similar for all settlements concerned, whereas the second question requires a more contextual approach that focuses on individual settlements.

³⁰ There may be a few exceptions to this rule at Çatalhöyük (see chapter 6).

CHAPTER 2: SETTLEMENTS AND SOCIETY

The ways in which settlements and society are interrelated and structure one another will be explored in this chapter. These relations are often of great complexity and are determined to a large extent by culturally specific practices. Nonetheless, it is possible to outline some general principles of analysis which can be used cross-culturally. The aims of the present chapter are threefold. First, it is necessary to dwell briefly on my understanding of the role of material culture in social life. Second, archaeological methodologies and concepts for spatial analysis relevant to this study will be briefly discussed. Third, the ways in which social organisation and the organisation of space in settlements may be interlinked will be discussed.

2.1.1 CONCEPTUALISING MATERIAL CULTURE

The question in what manner material culture relates to human behaviour at large is one of the main research topics in archaeology. The ways in which material culture is interconnected with human behaviour has proven to be extremely complex. Efforts of archaeologists to arrive at some sort of overarching theory of this relation have been remarkably unsuccessful (Hodder 1982a, 5), and were characterised by Flannery (1972b) as ‘Mickey Mouse laws’. In my perspective a ‘theory of material culture’ is not feasible, for a very fundamental reason. It is often erroneously assumed that material culture as a distinct category can be opposed to culture in general. In such an opposition, artefacts, which are seen as functional tools, are juxtaposed to immaterial ideas and language. In the following, I will explore the ways in which material culture can be meaningful and can structure human behaviour. By focusing on these aspects I do not intend to argue that functional and technological aspects of material culture are not important. The significance of these aspects is so obvious that they do not require further discussion here (but see chapter 3).

In relation to the opposition between material culture and culture, let us consider a flag. Clearly a flag is an object, but at the same time, it is an abstract symbol with great potency in the lives of many people. Thus, the flag transcends the opposition between matter and mind that is at the basis of the concept of material culture. Due to its semiotic properties a flag is more like an idea than like a screwdriver (Hodder 1994, 73). Some archaeologists might argue at this point that the flag is an exceptional object, and that most artefacts are less iconic and more functional. However, numerous studies have demonstrated that a range of ‘functional’ objects used in daily life, such as pots, baskets, and spearheads, may also communicate messages about status and identity (Hodder 1982b; Moore 1986; Shanks and Tilley 1987; Lemonnier 1989; Tilley 1999a).

These studies demonstrate that material culture takes on a variety of meanings in social interaction and structures behaviour in a profound manner. The implication of this line of thought is that the distinction between material and non-material culture can be dissolved. Both material and non-material culture are important in the practice of daily life and structure the way we live. Material culture may be both the outcome and mediator of social practice, but so is non-material culture. The focus on material culture and its relations with the social, so fundamental to archaeology, creates a false dichotomy, in which the two are opposed and correlated. Thus, there can only be a theory of culture, and it makes no sense to isolate its material component (Hodder 1994, 73). It is for this reason that cross-cultural models for interpreting material residues of past communities have been largely unsuccessful (Thomas 1999, 459).

The ways in which material culture can be meaningful and can structure behaviour has become a field of study in recent years (Miller 1987; Tilley 1991; Buchli ed. 2004). These studies have rejected the view that material culture does not play a role in social life. In contrast material culture has been compared by some archaeologists to a text, and it has been argued that material

culture can be read in a way analogous to literary sources, with the implication that it has to be interpreted, and that multiple interpretations are valid (Hodder 1986; Tilley 1991; 1999b; Thomas 1999).

This comparison between text and material culture is, however, highly problematic. A text is written intentionally to communicate a message. This is very clearly a different process from, for instance, the act of shaping and decorating a pot. The pot is generally not 'written' in the way a text is, and as a consequence it does not signify in the way that a text does (Preziosi 1979, 1-3; Johnsen and Olsen 1992, 425; Hodder 1994). To state that material culture is akin to a text is without content. Most material culture is not used to communicate discursive messages.

Hodder (1994, 73) has argued that we can distinguish four ways in which material cultural may be meaningful: first, objects may have emotional value (consider, for instance a teddy bear); second, artefacts may have an aesthetic effect (for instance a painting); third, things may have a discursive meaning (such as a flag); and, fourth, the meaning of an object may derive from its function (for instance a hammer). From my perspective, such a categorization of different types of meaning material culture can have seems rather arbitrary for two reasons. First, an object can have any combination of the four types of meaning mentioned. For example we can mention an expensive car. Is that car aesthetic in effect? Is it of emotional value to its owner? Is its meaning related to its purpose, and how it functions? Or is the car a discursive message to impress other people? Obviously, all these things can be true at the same time. Second, an object can change from one category of meaning to another, a famous example being the safety pin in a punk outfit (functional to discursive).

A more interesting distinction was drawn by Bernbeck (1999, 92), who argues that there are two kinds of meaning: discursive and intuitive. Intuitive meaning is taken for granted and not reflected upon, whereas discursive meaning, by contrast, is used for communicating messages. The distinction between the two resides not so much in objects as in contextual cues. Bernbeck (1999, 95) mentions the example of blue jeans, that were a symbol of rebellion at one point, but have now lost that discursive meaning completely. Nonetheless jeans are obviously a means of communicating messages about self-identity, but in much more subtle and non-discursive ways (it is likely that these factors were also at play during the stage when wearing jeans was an act of rebellion). Regarding such non-discursive meaning Miller (1982, 19) wrote:

"if we were to study the detailed variability in sherry bottles we would agree that individuals had no problem in recognising the characteristic shape, but the subtleties of curve and line that act to differentiate these from other bottles are extremely hard to describe in verbal form and do not impinge on conscious knowledge."

It is probable that this type of intuitive meaning is much more common than discursive meaning (Miller 1982; Bloch 1998a), but both aspects will need to be taken into account in archaeological analysis.

A third aspect of material culture that needs to be taken into account is the fact that it structures human behaviour by means of its physicality (Miller 1987). The most extreme example of this principle is prison bars, but there are many other, more subtle, ways in which our behaviour is determined by our environment (Sanders 1990). The structuring properties of material culture are most prominent in the built environment, which forms the taken for granted arena for most of our activities. In many buildings a series of cues will inform us on the appropriate type of behaviour. For example, a seminar room is structured in such a way that the speaker becomes the centre of attention, by means of the orientation of the seats of the audience, and by the fact that the speaker is individuated by a different orientation and often a different body posture (the only person standing).

These perspectives on the ways in which material culture plays an important role in social life mesh well with the structuration theories proposed by Bourdieu (1977) and Giddens (1984), in which the basic notion is that the social structures that give shape to our lives are continually being

reproduced in the context of daily activities. This is not the place to enter into a detailed discussion of these theories, and I will limit myself to a few general comments. In doing so, I will follow the terminology used by Bourdieu, but many of his ideas also feature in the work of Giddens.

To elucidate the main idea of structuration theory I will draw on the example of language that is at the basis of both structuralism (Pettit 1975), and structuration theory (Bourdieu 1977, 22-30). The use of language, which is determined by the need to communicate, also serves for the reproduction and modification of that language. The proper use of grammar in our communication unwittingly serves to support and reproduce the structure of the language in question. At the same time individuals may introduce new words into the vocabulary of a language, and certain aspects of grammar may change when alternative variants become popular. In general, language both constrains people, in that only utterances that make sense are permissible, and enables them to communicate (Barret and Fewster 2000, 31-2).

In the terminology of Bourdieu the following concepts are used to describe the process of the reproduction of society. *Structures* are generative principles that are at the basis of social life, taking for instance the form of preferential marriage rules. These structures do not operate for the most part at a conscious level, but are mediated in the *habitus*, which consists of ‘durable transposable dispositions’ (Bourdieu 1977, 72) determining which types of behaviour are appropriate in a specific situation. Finally, *practice* consists of the activities of people in daily life. Thus practice is determined to a large degree by the habitus that reproduces structures.

In terms of archaeological residues, the habitus and its component practices are the most promising for analysis. The structures that generate the habitus are less likely to be represented in our data, and will have to be inferred on the basis of our understanding of the habitus. The important thing about the habitus is that the mentalities of which these consist are in part constituted by material culture.

A famous example of such a link between material culture and the habitus is Bourdieu’s description of the Berber house (1973), in which he demonstrates that a series of linked dualities are constituted by the different parts of the house. In this context Bourdieu speaks of ‘structuring structures’ (1977, 90). While this type of ‘microcosmos’ may in many cases be difficult to recognise archaeologically (but see Hodder 1987; 1990), there are other examples where meaning is less discursive and more easily grasped. Consider, for instance, a shop. There are a whole series of cues in such a space, consisting of, for instance, the corridors with groceries, advertisements on boards, and the cash counters, that indicate the nature of such a space. In effect, the habitus concept provides the conceptual basis for a contextual approach to archaeology, in which an interpretation is based primarily on the specific configuration of elements, rather than on general principles, while avoiding the problematic equation of text with material culture.

A second aspect in which structuration theory can be helpful for archaeological conceptualisation is with regard to how social groups are constituted. The central claim that society is constituted through the daily activities of individuals makes it possible to link social groups to places and practices that can leave a material residue. The structuration perspective allows us to move away from a view in which social identities are entirely ideational and symbolic (Cohen 1985), to one in which social identities are grounded in shared activities and spatial proximity (Barret and Fewster 2000, 30; Amit and Rapport 2002; Gray 2002). This has major implications for the ways in which we can interpret the organisation of settlement space, which is one of the main themes in this study.

2.2.1 CONCEPTUALISING SETTLEMENTS

In the preceding section it has been argued that there is no unproblematic link between specific forms of material culture on the one hand, and particular types of social formation on the other. Instead, material culture is used in culturally specific ways, and completely dissimilar societies may use similar types of material culture. It follows that settlement analysis cannot proceed only on universalistic principles, nor can it be based on the form-follows-function premise.

These observations have two consequences. The first is that ethnographic evidence of settlements that share characteristics with those studied in archaeology can be used as an analogy only to a limited degree. Such parallels may be informative on some of the technological and practical aspects of living in settlements, but there is no reason to suppose that other aspects of culture are relevant to the archaeological case study. To mention an example, Çatalhöyük has often been compared to Pueblo settlements of the South-Eastern USA (Stea and Turan 1993; Cutting in prep), because in both cases rooms were built in compact clusters and many spaces could not be reached directly from open spaces. However, the idea that the societies living in these settlements were also similar by default, simply because their settlements were alike in some respects, that is implicit in a book by Stea and Turan (1993), should be rejected. The point is not that the Pueblo societies may not be used as an analogy for the clustered neighbourhood settlements of the Central Anatolian Neolithic, but that they do not necessarily constitute a privileged parallel more relevant than others. The second consequence is that in order to understand in what manner a settlement was constitutive of a particular social system contextual data have to be incorporated in the analysis. The study of these contextual data is one of the central elements of this study and will be further explored below.

In order to clarify my argument, let us consider a door. Obviously a door structures human behaviour in important ways, acting both to facilitate and restrain social interaction. The position of the door, for instance, whether it opens onto a hallway or to another room, determines the manner in which a space is articulated within a larger configuration of spaces. All these aspects of the door structure the ways in which a particular space is used, and need to be investigated. To do this we can use methodologies such as space syntax analysis (Hillier and Hanson 1984) that are based on universalistic principles. This sort of analysis can help us greatly in understanding how particular configurations of space may have influenced human behaviour. However, it is naïve to presume that by following such a methodology we will have completely understood the manner in which the door functioned. It is clear that there is more to a door than that. The permeability of the door: who is allowed to enter through the passage and with what degree of decorum, obviously varies enormously from one context to another. For analysing this variability different methodologies are required that are good at placing the door in its particular context, allowing us to determine, for instance, that the door is an entrance to a toilet. In order to understand the door it is necessary to study both the configurational aspects of the door, and to take into account the contextual setting in which the door functioned. In the archaeological discourse it has become fashionable to juxtapose these two forms of analyses, which are referred to as studying ‘space’ and ‘place’, and it has been suggested that the two types of analysis exclude one another (Tilley 1994). While there is some justification for such dichotomous thinking in the development of archaeology as a discipline, I believe it is detrimental to our efforts to understand the past.

In light of these considerations it will have become clear that it is not possible to sketch a theory outlining settlement morphology and how that relates to social structures. On the other hand, it is possible to discuss some of the variability of settlements in the ethnographic record in order to see what type of structuring effects specific forms of settlement can have on their inhabitants, generating models that need to be confronted with contextual data in order to understand how such a structure was mediated in daily life. In the remainder of this chapter I will introduce some of the methodologies and concepts that have been used by archaeologists to study settlements, and discuss some ethnographic examples of settlements that I believe can help to bring out the ways in which the organisation of space and society can be interrelated.

2.3.1. ARCHAEOLOGICAL APPROACHES TO SETTLEMENTS

Settlement as a concept includes a broad spectrum of human agglomerations, ranging from a few buildings in close proximity (no more than 150 metres apart, which is the furthest hailing distance) to large urban agglomerations (Roberts 1996). In this study the size of the populations of the settlements involved range between a few score and few thousand. I have avoided words like

‘village’ and ‘town’ throughout for two reasons. First, in this manner a discussion of definitions, and whether specific sites belong to one category or another, can be avoided. Second, and more importantly, concepts like hamlet, village and town are inextricably bound up with that of the city (Childe 1950; Roberts 1996, 18-9; Smith 2003, 8-11). In such a relation, villages are part of a larger configuration in which they perform a specific role. Thus, villages are a place where agricultural surplus is produced for towns and cities, where other types of goods and services are produced, that are also of importance for the villagers. By contrast, in the case of the Central Anatolian Neolithic urban communities did not exist, and in many cases settlements seem to have been more or less autarkic. Words like hamlet, village, and town are problematic in such a context.³¹

Spatial analysis of the built environment first became a prominent research topic in the New Archaeology (Chang ed. 1968; Clarke ed. 1977). In these studies and those that followed their lead, the main research interests were, the location of sites in the landscape, settlement patterns, the distribution of artefacts across sites, and how these distributions may inform us about activity areas, and the access configurations of the built environment (Vita-Finzi and Higgs 1970; Johnson 1982; Hietala ed. 1984; Hillier and Hanson 1984; Chapman 1990; Bintliff 1999; Wheatley and Gillings 2002). The methods employed in these studies are quantitative and in many studies the results of the calculations performed are presented as directly reflecting behaviour patterns in the past. The reasoning is generally universalistic, in the sense that a specified set of relations are posited that are held to apply for all societies. A typical example of such a relation is the 10 m² floor surface per person rule as proposed by Naroll (1962), another example is the rank-size-rule for settlement systems, defined by Johnson (1981), and Kent’s proposal that there is a relation between the complexity of societies and the degree of segmentation in the buildings and settlements of those societies (1990, 127).

These studies have been criticised by post-processual archaeologists for failing to address the contextually specific ways in which buildings may be meaningful. Instead, from the 1980s onwards, symbolic dimensions of the built environment have been foregrounded in a series of studies (Moore 1986; Hodder 1990; Grøn *et al.* eds 1991; Pearson and Richards eds 1994; Verhoeven 1999).

In some of the publications by post-processual scholars these two perspectives on the spatial dimension of human behaviour have been juxtaposed as approaches dealing with ‘space’ and ‘place’ (Tilley 1994, 8). Some of the most important contrasts that have been drawn in relation to the space and place concepts are represented in table 2.1. Space is seen as sterile, quantifiable, extension, and by contrast, place is seen as local, specific, and meaningful (Ingold 1993, 154).

Space	Place
extension	meaning
quantity	quality
container	medium
universal	specific
global	local
a historical	biography
abstract	experience and knowledge

Table 2.1: The space – place opposition according to Tilley (1994).

³¹ It has been argued by Bintliff (1999) that ‘town-like behaviour’ may occur in settlements not necessarily part of a functionally differentiated settlement system, but with a population size above 500 that allowed marriage patterns to be primarily endogamous. In this study such issues will be discussed in chapter 9 (§9.3.5) in relation to the ‘corporate community’ concept, rather than in relation to the ‘town’ concept.

This dichotomy has been of great importance in drawing scholarly attention to certain aspects of the past that had been neglected in earlier studies. However, this type of dichotomous reasoning has also created the illusion of incompatible approaches. To my mind, the most interesting studies in archaeology combine aspects of the two perspectives (Chapman 1990, 1991; Bailey 1999; Verhoeven 1999).

The problem with the concepts of *space* and *place* is not so much their content, but the manner in which they have been related to each other. The most common perception seems to be that place is created out of space, that space is a 'tabula rasa' awaiting cultural signification. Space, in such a view, is a pre-existing landscape, a physical terrain, which is subsequently transformed into a cultural domain by means of names, stories, memories, practices, etc. The problem with this view is that the world of which we are part is not an empty container that is ours to transform (Pred 1985, 337). The meanings, practices, and names connected to places are an essential part of its constituency. Rather than prioritising space over place, it can be demonstrated that space is secondary, both in the sense that it is a modern concept, and as a derivative of place. Space is a construct developed for scientific purposes, beginning with Galileo, Descartes, and Newton (Casey 1996, 20). It is the container through which Galileo's planetary movements could be postulated, and in which Newton's gravitation laws could be applied. Space, in this regard, is quantifiable extension, and that quantifiable aspect renders it useful for science.

Humans are by definition localised, orientated in specific places, which are perceived through experience. These localities can possess all the characteristics of place, such as biography, meaning, and specificity. Since places are essential for our existence, they are primal. Thus there cannot be a process of cultural signification of empty spaces (Casey 1996, 18; contra Tilley 1994, 12-4), except for cases where new environments are first encountered.

In archaeology we are generally studying specific places, such as houses and sites. Thus one aspect of archaeological analysis must be to consider all of the configurational, contextual, and biographical elements that make a place unique. It has been argued that this should be done by experiencing the place through confrontation in body or mind (Hodder 1986; Tilley 1994), but here such a methodology is rejected (Johnsen and Olsen 1992; Brück 1998).³² Instead, it is argued that any understanding must be grounded in quantifiable patterns in the data. In the following sections I will present some methods and concepts that have proven useful in the context of this study for the analysis of the configurational, contextual and biographical aspects of settlements and their constituent buildings.

2.3.2 THE CONFIGURATION OF SETTLEMENTS

The analysis of the manner in which the buildings of a settlement are organised can provide important insights into Prehistoric society. Specific forms of spatial association may be favourable

³² The most extreme position, that the past can only be understood through experience, has been proposed by Tilley (1994). Rejecting space as sterile extension he prefers the 'human space', a concept that is interchangeable with 'place'. It is argued that by experiencing places today we can understand how they might have been experienced in the past, since we, like those who constructed the structures, are oriented in the world through our body (1994, 11-4). Tilley then projects his own experiences of Prehistoric monuments onto the past. The fact that the landscape might have changed dramatically in the intervening period is ignored. More importantly the cognitive background in which a place is experienced is not taken into account. The body is not a simple cultural universal, and the ways in which landscape and the past are experienced are more to do with mind than with body, "perception is not simply a physical process, but is a deeply cultural phenomenon" (Brück 1998, 34). Consequently, there are three problems with this approach. First, we, as (post)-modern urban people with an interest in the past experience places and landscapes from our own background (Ingold 1993). Second, we do not know what kind of symbolism, experiences and ideas were tied up with a place (Thomas 1993, 29). Third, if places are perceived through experience, they must also be profoundly personal. With the advocated approach to human space, Tilley suggests that a kind of general experience of places exists, but that cannot be.

to particular forms of interaction, while others may be made more difficult. A clear illustration of the structuring effects that spatial configurations can have is the Moroccan city of Fes described by Wirth (2000, 326):

“Zur Hauptreisezeit strömen täglich einhundert bis zweihundert Busladungen westlicher Touristen in die Medina von Fes hinein; es ist immer wieder faszinierend zu beobachten, wie solche Massen mit diesem weitmaschigen öffentlichen Netzwerk vorlieb nehmen, dort gebündelt bleiben und nur in Sonderfällen einmal in private Stadtbereiche einsickern.”

What is of particular interest in this example is that the spatial configuration of Fes, which is geared at keeping strangers out of the neighbourhoods, ‘works’ even for people coming from a completely different cultural tradition.

With this example I do not want to argue for a spatial determinism of society. Spatial configurations may structure human behaviour to some degree, but the particular use that is made of a particular spatial configuration may be highly flexible. In this respect, the analysis of the configuration of settlements can at best provide a general hypothesis on how interaction was structured. Such a hypothesis needs to be confronted with contextual data if possible, in order to understand the interplay between a particular spatial structure and the uses to which it is put.

The most systematic attempt to study the configurational aspects of settlements in the context of archaeology has been the ‘space syntax’ model (Hillier *et al.* 1978; Hillier and Hanson 1984; Hillier 1996).³³ Space syntax theory was not so much developed as adopted by archaeologists. The basic assumption of space syntax theory is that spatial configurations structure human behaviour in a straightforward manner. Space relations are analysed with statistical and computer aided methodologies, and the resultant patterns are seen as reflecting interactions in society. In this model both settlements and individual buildings have spatial configurations that constitute the interactions that occur. These spatial relations define human behaviour in a subtle manner, of which we are generally unaware (Hillier and Hanson 1984, 2).

The space syntax method, best expressed in ‘The Social Logic of Space’ (Hillier and Hanson 1984), formalises spatial relations. Each room within a building is seen as a cell, regardless of its size, elaborateness, or function, and the connections between spaces are presented in a diagram. The connections between spaces, or their ‘articulation’, can be analysed with regard to such matters as ‘symmetry’ (whether spatial relations of cells are hierarchically structured or not) and ‘depth’ (how many other cells have to be crossed to reach a space), to describe spatial relations. Spatial relations of open spaces are more difficult to determine, since such spaces are by definition continuous. However, using sophisticated methods based on principles of visibility, the open space too can be broken down into units. The relations between these open spaces, and the relations of open spaces with the buildings located on them, can be expressed using statistical methods.

The methodology developed by Hillier and Hanson in their ‘Social logic of space’ has been both very influential (see for instance Chapman 1990; 1991; Byrd 1994; Blanton 1994; Banning 1997), and strongly criticised (Leach 1978; Brown 1990; Lawrence 1990). The two main points of critique are: first, that the methodology is oblivious to the variability in size and function of the individual cells and stresses only their connections; and, second, that the method is not informative on the actual uses to which a certain spatial configuration are put.

Both of these critiques deal with the significance of the results of configurational analysis. As a methodology, the space syntax highlights particular aspects of the built environment while ignoring other aspects, such as the nature of the individual cells. This particular problem with the methodology can be improved upon by using symbols to differentiate between particular categories of cells (Chapman 1990). The second critique, that the configuration of spaces is only partly constitutive of the social, has recently been acknowledged by Hanson (1998, 272):

³³ In a recent book Hillier has replaced the term ‘space syntax’ with ‘configuration’ (Hillier 1996).

“the construction which can be put upon a spatial gesture like occupying the deepest terminal space in the home can be quite different depending on who the occupant is and what are the material circumstances which surround the act of ‘being there’.”

In conclusion, space syntax is to be considered as a descriptive and informative tool, rather than as an explanation in its own right. The space syntax methodology is particularly helpful for two aspects of spatial studies: first, it helps us to study spatial configurations in a systematic way; and, second, it is important for bringing out the characteristics of spatial configurations that may have stimulated certain forms of social interaction over others. However, space syntax has to be augmented with other types of evidence that can be used to gain an understanding of the nature of particular spaces (§2.2.1; §2.3.3).

At the practical level, in archaeology there are additional problems with access analysis. These are related to the quality of the evidence that we can use. I will mention four examples of practical problems in particular. First, even the largest exposures in archaeology usually provide only a partial plan of a settlement. Much of the tool kit of access analysis, however, is geared at studying complete settlements. The only solution to this problem in archaeology is to work with local (relation to directly neighbouring cells) rather than global (relations to the settlement as a whole) measurements of configuration. Second, in archaeology we often possess only the ground storey of buildings, due to which we lack a substantial component of the settlement. Fortunately, in the context of the Central Anatolian Neolithic true upper storeys are only being introduced in the Early Chalcolithic period (see chapter 8), and in consequence this problem hardly affects the current study. Third, in many cases in archaeological analysis it is impossible to reconstruct the location of entrances between spaces. This circumstance affects the resolution of a configurational analysis considerably. Fourth, archaeological data often suffer from poor temporal resolution. It is often very difficult to establish the contemporaneous existence of buildings in an archaeologically excavated settlement (see chapter 3). This factor directly affects the basis upon which analysis is undertaken.

From this survey of practical problems it will have become clear that the access methodology outlined by Hillier and Hanson (1984) and further developed in later works (Hillier 1996; Hanson 1998) cannot be applied to the archaeological cases in this study, because these methodologies were devised for situations in which settlement and buildings plans are both complete and unproblematic (*cf.* Hanson 1998, 273). An archaeological configurational analysis can only be performed if that methodology is adapted to the evidence we have. This means that: first, local rather than global measurements are central to the study; second, that the analysis is performed at a general rather than a detailed level, so that the uncertainty surrounding configurational aspects of particular spaces need not affect the analysis too much; and, third, that the analysis aims to reveal a general set of characteristics of a particular settlement, rather than an exact representation of the situation at any particular point in time. In accordance with these principles the configurational analyses in this study are of a simple and unpretentious kind, serving only as a tool to bring to the fore certain structuring characteristics of the settlements of the Central Anatolian Neolithic.

2.3.3 THE CONTEXTUAL ANALYSIS OF SETTLEMENTS

Despite claims that a contextual approach is recent in archaeological analysis (Hodder 1986), there is nothing new about the idea that contextual association are of key importance in archaeology. This understanding is at the basis of the development of archaeology as a discipline (Trigger 1989). The main difference between those archaeologists that use the label ‘contextual archaeology’, as opposed to other archaeologists, is the fact that they argue, in my opinion with just cause, that contextual associations may be used to study ancient symbolism along with economy and technology.

In every type of contextual analysis it is of great importance to be aware of a range of site formation processes that may affect the patterning of the evidence (Schiffer 1987). To mention an

example, in most Near Eastern sites it is clear that a range of building materials derive from earlier tell deposits. These building materials often include older artefacts contained within those sediments. While excavating in the Late Bronze Age remains at the site of Sabi Abyad, in Northern Syria, I found a large quantity of Late Neolithic material culture, that could be recognised as such due to the fact that the objects from both horizons are very distinct. If and when the contrast between intrusive material and that associated with the occupation of a structure is less clear, it will not always be possible to filter out such evidence (Cessford 2003). This effect of ‘background noise’ is likely to be especially pronounced for both small artefacts and inclusions in archaeological deposits.

Three categories of contextual evidence can be distinguished, although the divisions between these categories are somewhat arbitrary. First, there are the archaeological deposits, including debris and fill layers, but also floors etc. By studying the composition of, and inclusions in, the individual deposits, it is often possible to relate them to particular sets of activities. For instance, some deposits may be indicative of animal penning and others of lime burning (Matthews *et al.* 1996; Matthews *et al.* 1997; Matthews 2005). Only in a few instances can these interpretations be made with the naked eye. For instance, at Çatalhöyük it is apparent that some rooms have much thicker and more finely laminated plaster linings than others. Normally, this type of observation requires thin sectioning and microscopes, however. The methodology of ‘micromorphology’ has been introduced to archaeology only recently, and there are at present only a few instances where evidence obtained with this technique is available. The case is somewhat similar for the techniques in which the chemical characteristics of and micro-artefacts contained within surfaces and floors are analysed (Cessford 2003; Middleton 2004; Özbal *et al.* 2004). All these types of analysis hold great promise for future analysis, but will not play an important role in this study.

Artefacts constitute a second set of contextual data. These may be found either in secondary contexts or in primary contexts, for instance as burial goods in undisturbed graves. In the Central Anatolian Neolithic, *in situ* finds are rare and restricted to a few contexts. These are: first, the burials already mentioned, although in many burials skeletons and burial goods became reshuffled when later individuals were interred in the same location and the label *in situ* is a bit problematic in this situation; second, sub-floor caches containing obsidian hoards, and in some case other objects as well; third, in between wall clusters of objects or bones; and fourth, objects found on floors and in features. The latter group of objects is rare in the Central Anatolian Neolithic: the large majority of the buildings were stripped clean of artefacts before they were abandoned and infilled. Thus in the few instances where we do find objects on floors or in features, these were probably placed there with a particular reason, and such objects tell us more about the behaviour surrounding the abandonment of a building than about the use to which a building was put during its occupation.

In this study the *in situ* artefacts found in the clustered neighbourhood settlements of the Central Anatolian Neolithic will not play a prominent role, for several reasons. First, such artefacts are rare, and it is difficult to base an argument concerning the use of space on such objects, when only a minority of the rooms contain them. Second, *in situ* artefacts found on floors seem to relate primarily to abandonment practices rather than to the nature of the particular space in which they were found. Third, the publications of the settlements under consideration are not, for the most part, sufficiently detailed to determine the location and context of individual finds.

The third category of contextual evidence consists of fixed features and artefacts, or ‘immobilia’. It will be appreciated that there is a grey boundary with portable artefacts here, as is exemplified by the case of a grinding stone. Fixed features include, amongst others, burials, caches, posts, buttresses, screen walls, platforms, benches, bins, basins, niches, hearths, ovens, moulded features, inserted horns and bone elements, horn pillars, and wall paintings. Fixed artefacts may include embedded grinding stones, and embedded pots. One could argue that obsidian caches should also be included in the ‘fixed features and artefacts’ category, because they were meant to remain in the same location for prolonged periods of time.

The advantages of fixed features and artefacts over portable objects for spatial analysis are several. First, unlike portable artefacts, fixed features and artefacts are invariably *in situ*. Questions may arise as to which phase of occupation the immobilia may belong, but these problems are relatively minor in comparison to the problems surrounding portable artefacts. Second, immobilia reflect the activities that took place in a building in a fairly unproblematic manner.³⁴ Third, immobilia are relatively well published, appearing on plans and pictures in a more or less systematic manner. This makes it possible to measure and contextualise these features and artefacts in a way that is not possible for the portable artefacts. In conclusion, the immobilia are ideally suited for a spatial analysis of poorly published sites, or sites excavated a long time ago. It is argued that by applying novel techniques for spatial analysis it becomes possible to gain new insights into sites with poor resolution publications and large exposures.

The spatial analysis of the immobilia is the main approach used in this study for analysing the variability of spaces in the Central Anatolian Neolithic, and to get at the nature of specific structures. It is this dataset that will be related to the spatial configurations that emerge from access analysis, and it is also this dataset that is used to gain an understanding of the constitution of the clustered neighbourhoods of the Central Anatolian Neolithic.

A long tradition of spatial analysis exists in archaeology. This took off mainly with the New Archaeology, and has continued up to the present. In general, the increase of computing power and the development of a suite of software that allows for spatial analysis have been of great importance to such studies. Although the New Archaeology is often presented as constituting a unified program, at least two major variants were in existence. The American school wanted to integrate archaeology with anthropology (Binford 1962), but the British New Archaeologists were allied in the first place with geographers (Bintliff 1991; 3), using models and concepts derived from the 'New Geography'. In the latter school an emphasis on computer engineered statistical analysis of distribution patterns of specified features, and the application of geographically derived models such as Christaller's central place theory, Thiessen polygons, site catchment analysis, point pattern analysis and nearest neighbour analysis were important elements of archaeological spatial analysis (Clarke ed. 1977; Bintliff 1999). Based on these models many archaeological studies of spatial patterning were executed both at the intra-site level (for instance Van Der Leeuw 1981; Ciolek-Torello 1984; Hietala ed. 1984), and at the regional scale (Johnson 1972; Hodder and Orton 1976; Johnson 1981).

These studies have been criticised in two ways. First, the archaeological data were often considered to be representative. For instance, in many studies all sites in a survey dated to a specific culture historical period were taken to be contemporary, and site sizes were related directly to their importance in a settlement system. Both assumptions are highly problematic, however (Meijer 1990). Furthermore, archaeological data distributions are influenced by a whole range of factors, including post-depositional processes and archaeological research methods and interests (Schiffer 1987; Shanks and Hodder 1995). Due to such factors the patterns in the archaeological data sets are not, in most cases, representative and should be carefully scrutinised.

A second critique of spatial analysis has focussed on the way in which statistical patterning derived from archaeological data has been interpreted. Such patterns were often held to reflect societies in a straightforward manner (Hodder 1982a, 5; Tilley 1994). A certain type of spatial pattern was correlated with a specific kind of cultural system. The relations between spatial patterns and culture have since then been shown to be much more complicated (*cf.* Hodder 1982a, 4). In light of these considerations, distributional analyses are often no more than elegant statistical descriptions of unrepresentative patterns of archaeological data that have little explanatory content with regard to the society that they were part of.

³⁴ This is contrary to the position taken by Allison (1999, 5-6) who argues that portable artefacts constitute the best data set for studying household activities.

From these critiques it follows that in spatial analysis it is important to reflect both on the data that are being analysed (how were they obtained, and which parameters could have played a role in the differential preservation and recovery of data), and on the manner in which patterns obtained from spatial analysis are interpreted. With respect to the latter aspect I feel that statistical measures upon which interpretations are based should be simple and straightforward, and that the use of complicated statistical measures that are difficult to understand does not enhance the plausibility of a reconstruction. In consequence, in this study I will not introduce any complex statistical measures to (in)validate my arguments.

If used with due consideration spatial analysis presents a powerful tool for archaeological analysis. A contextual archaeology requires that features and artefacts can be put in their spatial context (Verhoeven 1999). In recent decades the development of GIS (Geographical Information System) software, in which spatial data can be linked to maps, has made it possible to perform spatial analysis much more systematically than was possible before (Wheatley and Gillings 2002; Holstrom *et al.* 2004).

In this study a simple GIS is used to study aspects pertaining to the spatial distribution of fixed features and artefacts over the settlement. Measurements of the architectural units in which these immobilia were located are also included in the spatial analysis, so that relations between the distribution patterns and the nature of the spaces within which these distributions occur can be studied.

The following steps were taken for the spatial analysis of the clustered neighbourhood settlements of the Central Anatolian Neolithic. First, the phase plans of the individual settlements were digitised in the AUTOCAD programme, and grid referenced. For sites where multiple phases in sequence were excavated different phases were assigned to different AUTOCAD layers. In those cases where multiple phases of a single building have been documented (in the new excavations at Çatalhöyük) these building phases were also assigned to different layers. At some sites in the current analysis, the creation of these grid referenced AUTOCAD files was complicated by the fact that scales, north arrows, and coordinates were either absent or faulty. The manner in which these difficulties were overcome will be related in the individual chapters.

On the basis of the grid referenced AUTOCAD files it became possible to make measurements of the rooms and the fixed features and artefacts located within these rooms as they occur on plans. These measurements were registered in an ACCESS database (one for each of the sites analysed), and were augmented, where possible, with data from other, textual sources, such as preliminary reports, and unpublished specialist reports. The data in these ACCESS databases could then be used for statistical analysis, for which the SPSS programme was used.

Finally, the grid referenced AUTOCAD plans were integrated with the ACCESS database records with measured coordinates in the MAPINFO programme. This programme allows for the plotting of the distribution of many different kinds of features onto the settlement plan. In this manner it became possible to study the distribution patterns of a range of phenomena at great speed. The GIS thus created is an important building block of this study.³⁵

2.3.4 THE TEMPORAL DIMENSION OF SETTLEMENTS

The third component in the settlement analysis of this study deals with the diachronic aspects of settlements. As I will argue in chapter 3, ethnographically documented villages consisting of loam built houses are often characterised by a great degree of dynamism. Buildings are renovated, abandoned or newly constructed on a regular basis. While it is possible to document such a village at any point in time, it is generally impossible to isolate village wide building horizons. Instead there is a constant process of often small-scale local changes in the settlement occurring

³⁵ The files mentioned in this section will be made available. To locate the files search for 'electronisch depot nederlandse archeologie' on the internet.

independently from one another. For archaeological analysis, in which discrete building levels are generally isolated and then compared, this circumstance poses considerable problems.

The approach followed in this study to deal with this problem has two components. First, the idea that an archaeological phase plan represents an accurate plan of a settlement at any particular point in time is abandoned. Such a reconstruction is impossible to substantiate in exposures in which complete neighbourhoods have been excavated. In my mind, even the best field archaeologists are not able to unravel the complex stratigraphy of such a large group of buildings. Instead, it will be argued in chapter 3 that we can regard these plans, if coherent, as an approximation of what the settlement might have looked like at any particular moment in time, because in the Central Anatolian Neolithic the buildings waxed and waned according to a rigid set of principles, and buildings often replicated their predecessors.

Second, the developments of individual buildings in the settlements of the Central Anatolian Neolithic will be analysed wherever possible. The buildings in these settlements are generally characterised by a great degree of building continuity, and their development can be studied over many phases of reconstruction. By representing such buildings vertically in a stacked manner, and by representing certain characteristics of these building in stacked graphs, it is possible to study the diachronic developments of these structures. Some of the buildings of the Central Anatolian Neolithic show a development in which the nature of the buildings is transformed from one stage to another, whereas others seem to remain essentially the same over the centuries. I will argue that these diachronic trajectories also illuminate the synchronic relations between buildings in neighbourhoods, and can also help us to understand how such neighbourhoods were constituted.

In relation to the study of the developmental trajectories of buildings and how that affects their status, an important concept is that of ‘cultural biography’. It was first proposed by Kopytoff (1986) to describe singularised objects: objects that cannot be traded for commodities (for instance a family heirloom or a wedding gift). Kopytoff argues that these kinds of objects can best be studied as if they were persons. Questions that can be asked are, for instance: when, where and how does a thing originate?; what is the suitable career of the object?; how does the object differ from other objects of the same kind?; how does the age of an object influence its use? (Kopytoff 1986, 66-7). All of these questions are biographical, relating to the identity and career of an object, but a *cultural biography* looks at an object as “a culturally constructed entity, endowed with culturally specific meanings, and classified and reclassified into culturally constituted categories.” (op cit. 68).

The cultural biography concept has an important potential for archaeology. Originally, the concept has been used by archaeologists to study the particular history of singularised objects, and the meaning attached to these objects by different people in different phases of their existence. Typically such studies are about what the original meaning of an object was, and how this meaning shifted as the status of the object became transformed in the course of its particular biography (Gosden and Marshall 1999, 170-2; Seip 1999). In addition to these object-based studies, it has been argued that the cultural biography concept has explanatory content for other types of phenomena, including buildings, settlements and landscapes (Roymans 1995; Fontijn 2002; Gerritsen 2003). A cultural biographical approach seeks to determine the manner in which the biographies of these phenomena followed culturally specific patterns, and how individual biographies may have been meaningful in the past.

Many examples of archaeological studies dealing with these types of processes can be mentioned, although not all of them use the cultural biography terminology. Roymans (1995) has used the concept to discuss the changing relation of people with urn fields in the southern part of the Netherlands during the Bronze and Iron Ages. Gerritsen has used the approach to discuss the Bronze Age and Early Iron Age building remains of the same region (1999; 2003). In his discussion Gerritsen has posited that the life cycles of these buildings were bound up with those of the households inhabiting them (Gerritsen 1999, 84; 2003, 50).

Similarly, in a comparative essay on the Central Anatolian Neolithic sites of Aşıklı Höyük and Çatalhöyük, Hodder (1998a, 89) has argued that the building continuity at these sites points to a society where “people came to be bound between walls”, arguing that the history of buildings was tied up with that of their occupants (Hodder 1996b, 48). This hypothesis has recently been pursued further in an analysis in which the development of individual buildings at these sites and their status transformations over time were studied in order to investigate how these buildings might have been constitutive of society (Düring 2005a). The argument will be rehearsed in chapters 4 and 6, but one of the main conclusions is that at Aşıklı Höyük buildings stay more or less the same over the centuries, whereas at Çatalhöyük some buildings became more elaborate over time. Thus, building continuity by itself does not necessarily imply a similar type of link between buildings and society.

Somewhat similar approaches to house biographies are the concepts of ‘living houses’ (Bailey 1990, 28) and ‘use-life’ (Tringham 1995, 98). With these concepts Bailey and Tringham wish to stress the temporal dimension of buildings, how long they lasted, whether and how often they were repaired, whether they were replaced by a successor, and how all these temporal aspects were intertwined with the history of their inhabitants. Bailey studies the house as “an entity which lives within a variety of social and material contexts” (1990, 28). In an analysis of Ovcharovo, Bulgaria, Bailey (1990, 38-9) posits that continuity in houses throughout building phases, the choice to live on tell settlements, and the usage of house models, are all strategies that served to stress a link with the past, in order to legitimate or obtain control over land and resources.

In this study the diachronic developments of individual buildings and the changing configurations of groups of buildings over time will be explored. The concept of cultural biography can be very valuable in this analysis, but it should not be assumed a priori that buildings were akin to singularised objects and of great meaning to their inhabitants. The suitability of the cultural biography concept is something to be tested rather than assumed. In relation to this point, I have already argued that only a limited part of material culture has discursive meaning.

2.4.1 SETTLEMENTS AND SOCIETY

The spatial configuration of a settlement and the uses to which that configuration are put are constitutive of the social order. In daily practice these two elements together determine to a large degree in what manner people behave, and through their behaviour, how they constitute and recreate the social order. In this section two main points will be made. First, the manner in which society is constituted varies greatly from one culture to the next. For instance, in some cultures the nuclear family is the most important locus for social reproduction and economic activities, but in others the individual families are subsumed into larger social units. A number of ethnographic examples will be explored to clarify this point. Second, social configurations are often constituted in part by the spatial organisation of settlements. While it is argued that deterministic models linking specific spatial configurations to particular types of society are erroneous, we do need to be aware of the ways in which these two elements can be interrelated.

In the following, the focus will be on social associations and the manner in which these collectivities may be constituted through both the spatial organisation of settlements, and the uses to which these are put. Concepts of particular interest to this discussion are: first, households; second, ‘lineage houses’; third, communal buildings; fourth, clustered neighbourhoods; fifth, the local community; and, finally, I will discuss the interrelations between the built environment and symbolic structures. Before discussing these topics, however, it is necessary to dwell briefly on the concept of society, and the manner in which this is constituted.

2.4.2 THE CONCEPT OF SOCIETY

Like many key concepts in the social sciences that of ‘society’ is not clearly defined (Ingold 1999, 400). For the present purposes I will use a definition proposed by Giddens (1984, 164):

“Societies are social systems which ‘stand out’ in bas-relief from a background of a range of other systemic relationships in which they are embedded. They stand out because definite structural principles serve to produce a specifiable overall ‘clustering of institutions’ across time and space.”

The advantage of this definition over others is that it does not consider societies to be bounded entities in time and space: rather, their edges are diffuse. Societies are constituted at the intersection of multiple social systems, and their delineation is always to some degree arbitrary, depending on how one perceives a specifiable clustering of institutions.

There are a number of concepts in sociology that can be used to discuss societies in a systematic fashion. The main focus of interest in my research is with *social collectivities*: enduring social groups such as households, lineages, and communities, and how they constitute society as a whole (*cf.* Service 1962, 11). It is obvious that the specific shape and importance of these collectivities varies from one culture to the next. Social collectivities consist of people that occupy certain *social positions* in that collectivity. The relations between people occupying these positions are to a large degree determined by *social roles* (Lopéz and Scott 2000, 29-31).³⁶ To clarify, in the collectivity of the nuclear family there are a number of positions, such as father, mother, and child. Each of the people involved in this family is expected to act in certain - culture specific - ways towards the other members of the family. Such values are learned and reproduced in daily practice. Any one person will be part of a number of collectivities, within each of which he or she will occupy different positions. The appropriate behaviour for people towards each other may not always be clear in cases where collectivities and roles overlap, for instance where two brothers work in the same company.³⁷ These social roles do not necessarily depend on a shared consensus or a moral order (Lopéz and Scott 2000, 31-6), and they are both produced and reproduced in daily life. In the following I will discuss a number of social collectivities that are of particular importance to this study.

2.4.3 HOUSEHOLDS

Household studies are a well-developed research topic in archaeology (Flannery 1972a; Wilk and Rathje 1982; Blanton 1994; Allison ed. 1999; Robin 2003). The popularity of households in archaeology is probably related to: first, the fact that they are seen as a key social institution that is at the basis for society at large; and, second, that households have a material component that can be recovered archaeologically.

Households are units of economic and social cooperation commonly defined on the basis of a combination of shared residence and the pooling of economic resources (Wilk and Rathje 1982, 619-21; Bernbeck 1994, 28; Robin 2003, 308). Wilk and Rathje (1982, 621) have distinguished four basic functions of the household: first, the production of goods necessary to sustain the household group; second, the distribution of the produced goods among household members; third, the transmission of ownership of resources from one generation to the next; and, fourth, reproduction, consisting of the rearing and socialising of children.

From studies of recent households in a variety of cultural settings it has become clear, however, that residence and the pooling of economic resources do not necessarily overlap (Wilk and Rathje 1982, 620-621; Horne 1982; Allison 1999, 4-5; Byrd 2000, 66). Domestic groups that pool their economic resources need not necessarily occupy discrete houses, nor do people occupying discrete houses always function as a joint economic entity. For this reason household studies cannot be reduced to the analysis of buildings (Allison 1999, 4; *contra* Blanton 1994), but have to include an analysis of the uses to which spaces are put and how these spaces may have related to household groups.

³⁶ Giddens (1984, 83-9) prefers to speak of ‘positioning’ and ‘framing’ rather than social positions and roles, but otherwise his views match closely with that of the more ‘functionalist’ school in sociology.

³⁷ Such overlapping relations are called ‘multiplex’ by Gluckman (1962).

In relation to the two elements of joint residence and economic pooling that are at the basis of the household concept, some archaeologists have argued that the focus of household studies should be on the reconstruction of activity areas and activity groups. These can be studied on the basis of artefact and feature distributions and micro-residues in order to reconstruct practices of economic pooling (Ashmore and Wilk 1988, 4-5, Allison 1999, 5). Others have argued that a household concept centred on co-residence is more useful to archaeology (Blanton 1994, 5; Hendon 1996, 47).

In this study I adopt a broad understanding of households ranging from autonomous and clearly bounded domestic groups residing in discrete buildings with evidence for storage of goods and most domestic and some craft activities performed within the residence, as manifested in the presence of special purpose activity areas and features in buildings, on the one hand, to households dispersed over disconnected spaces executing their domestic activities in locales not exclusively associated with any particular household, on the other (see table 2.2). One central assumption in this paper is that households, defined in this broad manner, are a cultural universal but that their forms and degree of autonomy are highly variable. The sort of households present in any particular cultural setting should be determined on the basis of a contextualised assessment of the buildings and their inventories, rather than being assumed on an *a priori* basis (Wilk and Rathje 1982, 620; Byrd 2000, 66-67). Furthermore, archaeological data generally do not allow for a study of household dynamics, but instead will bring out typical elements of household constituency in a particular cultural horizon (Tringham 1995, 85).

		residence	
		discrete	fragmented
economic pooling	centred	Households occupy clearly defined discrete houses with a standardised set of domestic features relating to storage, production and consumption of subsistence goods.	Households occupy dispersed spaces but there is evidence for the compartmentalisation of storage, production and consumption of subsistence goods.
	dispersed	Households occupy clearly defined discrete houses but there is no evidence for the compartmentalisation of storage, production and consumption of subsistence goods	Households occupy dispersed spaces and there is no evidence for the compartmentalisation of storage, production and consumption of subsistence goods

Table 2.2: Household forms in relations to the variables of residence and economic pooling.

An important component of this perspective is that households cannot be studied in isolation, but need to be contextualised within their wider social setting. The ways in which households are connected to and embedded in society are both diverse and culturally specific (Brück and Goodman 1999, 5-6; Spencer-Wood 1999, 173-177; Robin 2003, 330-334).

In the context of the Near Eastern Neolithic, households have been conceptualised in a very specific manner. In an influential paper, Flannery (1972a) has argued that the emergence of villages in the Near East Neolithic was accompanied by profound changes in the social structure of societies. The new agricultural economy was held to revolve around the emergence of private property and the decline of the principle of sharing that had been characteristic of the preceding hunter-gatherer societies. Concomitant with these changes Flannery interpreted the emergence of rectangular buildings in the PPNB period as being related to the emergence of the household as the pivotal element of society, with each household responsible for its own production of food and other necessities of life. The rectangular houses were interpreted as the residence of family groups,

with gendered activity zones.³⁸ Further, Flannery argued that the Neolithic villages consisting of these households were held together by overarching social institutions, such as communal labour tasks, ceremonies and parties (1972a, 30-40; 2002). Thus, for Flannery the Neolithic transition was rooted in changes in the structure of society, in which the basic unit of food procurement and consumption shifted from the band to the individual household (1972a, 42).

This model proposed by Flannery has been very influential in subsequent studies of the Near Eastern Neolithic (Byrd 1994; 2000; Hole 2000, 205; Watkins 2001, 497; Banning 2003, 14), and more recent studies dealing with early Neolithic social structure have followed his arguments to a large degree.³⁹ The most explicit model of the role of households in the Neolithic of the Levant has been formulated by Byrd (1994, 639), who has argued that two related developments occurred: first, the emergence of more restricted social networks for sharing production and consumption activities, in particular the emergence of autonomous households; and, second, the development of more formal and institutionalised mechanisms for integrating the community as a whole, in particular through the construction of public buildings. Kuijt (1999; 2000) has suggested that mortuary rituals, in particular those related to skull removal, plastering and burial in skull caches, might have been one another way of reinforcing social cohesion.

In the study of the Central Anatolian Neolithic similar reconstructions of relatively autonomous households have been posited. Hodder (1996b, 47) has argued for Çatalhöyük that: “Each household seems to have been relatively self-sufficient in terms of production, tool manufacture and maintenance”, and he further stresses an ideology of continuity of individual households that according to him dominates much of the patterning at that site (*ibid.*; cf. Hodder 2005, 23). Similarly, Conolly (1999b, 798) has argued that: “For the most part Çatalhöyük’s socio-economic and productive activities appear to be organized around the individual household.” These households are held to have been more or less autonomous entities in the early levels X-VIB at the site. For the upper levels VIA-I at Çatalhöyük Conolly argues that lithic production increasingly became a specialized activity practised in some households only, and that households became more interdependent. It is posited that this may well have stayed within the productive sphere of the kin-group (Conolly 1999b, 798-9). Finally, Steadman (2000, 177, 183) argues that at Canhasan III houses were uniform and used for a limited range of purposes, but that they were used for a wider set of activities at Çatalhöyük, on the basis of the presence of a greater diversity of features in the buildings, and a more pronounced sub-division of space.

It will be argued in this study that this model of the ‘autonomous household’ is highly problematic for the Central Anatolian Neolithic (Düring and Marciniak 2005). One important drawback to the conceptualisation of households as relatively autonomous entities, which has dominated the reconstructions of Neolithic societies in Central Anatolia, is that is that it has directed the focus of archaeologists to the individual dwellings and their characteristics. Consequently, little attention has been given to the question in what manner households may have been part of larger social units (*cf.* Spencer-Wood 1999). To exemplify the ways in which households can be enmeshed in larger social collectivities, I will briefly discuss two examples from ethnography.

A first example is that of the Dogon, who live in Mali. Lane (1994) describes a system in which a lineage owns several dispersed houses in a village. These houses appear similar for all practical purposes, in terms of spatial characteristics and internal features. However, some of the houses are inhabited by couples with their offspring, while others are inhabited by adolescent boys and unmarried men, and yet other buildings are inhabited by widowed women and unmarried girls. What is remarkable about the case of the Dogon is that the houses tend to remain associated with

³⁸ For critiques of the typical male – female division of labour most often reconstructed in archaeological household studies see Engelstad (1991) and Spencer-Wood (1999).

³⁹ But see Kuijt (2000; 2001) for a perspective in which several households formed a ‘house’ collective (§2.4.4).

these specific groups and that people will move to other buildings when they enter a new stage of their lives (for instance when they get married). Thus houses are not so much adapted to the changing demands of their inhabitants, but people move from one building to the next in accordance with their status. The house belongs to the lineage rather than the inhabitants, and likewise the land is owned and worked by the lineage as a whole.⁴⁰

A second example is drawn from the town of Sefrou, Morocco. Geertz (1979) describes the social institution of the 'dar' in that town. The dar is a building in which a large number of families are resident, not all of whom are necessarily kin. Usually the dar is dominated by a patron, who may or may not be resident in the building, with whom all the inhabitants have a client relationship. Geertz states: "In Moroccan eyes, the dar has a social integrity of greater significance than the room (the bit), despite the fact that each room serves as the place of orientation of a woman, her husband, and their children." (Geertz 1979, 323). In Sefrou, it is the dar that is the most important constituent unit in society rather than the family household. Within the dar families often share food, and children spend a lot of time with other people, with whom they can stay for meals or during the night.

Both of these examples may serve to demonstrate that there is nothing natural about households being autonomous units that can be modelled as the building block of larger social and economic systems. Many other examples could be mentioned of societies where households are subsumed in larger social collectivities. For instance, we can mention the 'Zadruga' of Serbia, that included several married brothers and their children in a complex owned by their father (Halpern and Halpern 1972), the 'Kampongs' found in Malaysia (Carsten 1987), also consist of a group of co-residing married siblings with their offspring, the Longhouses of the Indonesian archipelago, in which a large number of nuclear families (up to 70) co-reside in a large house subdivided into apartments (Leach 1950; 63; Guerreiro 1987; Janowski 2003), the similar multifamily houses of the Nuuchahnulth in Western Canada (Marshall 2000), and a variety of communal groups in western societies, such as the Kibbutz and the religious communities in the United States (Saitta and Keene 1990; Spencer-Wood 1999; Brown ed. 2002).

Archaeological studies of households have typically consisted of: first, distinguishing rooms that may have been used primarily for domestic purposes, and trying to connect other kinds of spaces to these domestic spaces; second, exploring the range of activities that took place within such units, as evidenced in the features and artefacts present in them; and, third, exploring the variability between the units distinguished with regard to their sizes, their construction, and the activities performed within them (Ciolek-Torrello 1984; Molist 1998; Verhoeven 1999).

Two strategies can be employed in archaeology to recognise households, and these depend to a large degree on the nature of the evidence. First, in those cases where houses are built separately, are large enough in size to house a family, and contain a standardised suite of domestic features, an argument can be made that such houses functioned as more or less autonomous household units (upper left in table 2.2). The plausibility of such an interpretation depends on the quality and consistency of the data. A second approach, which is often taken when discrete building units are lacking, is to identify the main rooms of households in larger clusters of rooms (Horne 1982; Ciolek-Torrello 1984). In many cultures such 'living rooms' are characterised by the presence of a hearth (Halpern and Halpern 1972, 16-7; Kramer 1982, 104, 123; Carsten 1987, 156; Horne 1994, 159). Again, the onus is on the archaeologist to try to corroborate such an interpretation with other types of evidence.

⁴⁰ What is of interest for archaeology is that in terms of material culture the Dogon village would appear to consist of autonomous household units. This example serves to demonstrate that a hypothesis for autonomous households is not self evident if we find discrete houses with a standardised suite of domestic features, but requires to be tested rather than assumed. One element that could indicate a Dogon type of system is when buildings do not show developmental cycles of expansion and decay mirroring the needs of the household cycle. I will return to this point later in chapter 4.

In this study the articulation of households in the larger context of society will be explored by studying the size and nature of rooms (manifested for instance in the type of plaster on the walls and floors), and the features located within the rooms. In this manner I will try to distinguish different types of rooms. Finally, it will be investigated *if* and *in what manner* these rooms could have related to households.

2.4.4 LINEAGE HOUSES

Houses may be interrelated in a variety of ways. In this section I will explore one specific manner in which houses may be arranged in a configuration of relations. This type of configuration of houses was first explored in by Lévi-Strauss in his publications on houses and house societies (1983; 1984; 1991), and has subsequently been taken up in a variety of studies (Macdonald ed. 1987; Waterson 1990; Carsten and Hugh-Jones eds 1995; Joyce and Gillespie eds 2000; Sparkes and Howell 2003; Beck ed. in prep).

Lévi-Strauss (1983) first developed his ideas on house societies in a book dealing with the Kwakiutl, a group living in the North-Western USA. The Kwakiutl could not be accommodated into existing theories of kinship. Faced with the problem of defining Kwakiutl social organisation he found that it could best be understood in terms of the houses they belonged to. These were relatively enduring entities with estates and prerogatives in relation to which people defined themselves. Lévi-Strauss summarised these institutions as follows:

“a corporate body holding an estate made up of both material and immaterial wealth, which perpetuates itself through the transmission of its name, its goods, and its titles down a real or imaginary line, considered legitimate as long as this continuity can express itself in the language of kinship or of affinity and, most often, of both” (Levi-Strauss 1983, 174).

In subsequent analyses Lévi-Strauss found a large range of other societies with similar features, ranging from Medieval European societies to Japanese and Indonesian cultures (1983; 1984). According to Lévi-Strauss these were all examples of a particular category of societies in which: “political and economic interests, on the verge of invading the social field, have not yet overstepped the old ties of blood” (1983, 186). In other words, Lévi-Strauss argued that these societies were in an intermediate position between egalitarian kin-based societies on the one hand, and class-based hierarchical societies on the other.

The first edited volume devoted to the house societies concept defined by Lévi-Strauss (Macdonald ed. 1987) was mainly aimed at refining the classificatory aspects of the house societies model and how it related to kinship studies. In more recent studies inspired by the concept of house societies, a different direction has been taken, however.

First, it has been argued that the house societies concept has little heuristic value for classifying societies, and the evolutionary theory that is implicit in the model has been rejected, whilst retaining the notion of the house as a central focus for social organisation (Waterson 1990; Howell 1995; Waterson 1995; Gillespie 2000a). To avoid the classificatory aspects of the work of Lévi-Strauss, most researchers use the phrase ‘houses’ rather than ‘house societies’. I find this terminology confusing, however, and will use the term ‘lineage houses’ instead.

Second, attention has moved from the *house* as a purely abstract principle that may help to elucidate problems in kinship studies, to a consideration of actual buildings and how these may be interrelated with people’s identities and behaviour (Waterson 1990; Carsten and Hugh-Jones 1995; Marshall 2000; Kirch 2000; Sørup 2003; Waterson 2003).

Waterson (1995, 49-50) has distinguished three key features of *houses*: first, the ideal of continuity; second, the passing down of some form of valued property; and, third, the strategic exploitation of the language of kinship or affinity. A similar approach can be found in the usage that archaeologists have made of this concept, in which the term ‘house society’ is sometimes used to describe cases that do not fit many of Lévi-Strauss’s criteria, but in which buildings were continuous structures that held great meaning for their inhabitants (Hodder 1998a, 89-91; Kuijt 2000, 140-1; Tringham 2000, 120-1; Chesson 2003).

In these archaeological case studies *houses* are seen as essentially homologous and autonomous units. One of the essential elements in the concept of houses as conceived by Lévi-Strauss, however, and in many ethnographic case studies, is precisely the fact that houses tend to form hierarchical systems in which wealth, status, prestige and power are concentrated in a few houses. Such instances are designated ‘lineage houses’ in this study. To these high status houses groups of non-resident people and houses of lesser status may be attached (Gillespie 2000a, 48-9). In such a system high-ranking house members may have religious or political authority and privileges that others must do without. These buildings are of major importance for the creation and reproduction of group identities beyond the household level. A metaphor often used in Southeast Asian house societies is that of a tree, with the lineage house representing the original stem of the lineage, and dependent houses as branches developing from the main body (McKinon 2000; Sørum 2003; Waterson 2003). The complexes of houses formed by a lineage house and associated dependent houses will be designated *house groups* in this study.

It is important to emphasise that interhouse relations and the statuses of buildings are not a fixed constellation but may change due to social strategies and contingencies (Waterson 2000, 183). It is essential to monitor the temporal dimension of these relations and study the changes in relations between houses over time. In many ethnographies a relation can be demonstrated between the ‘pedigree’ of a building: that is the circumstances of its origin, the (mythical) identity of its founders, its relation to pre-existing houses, and the trajectory of development of a building, on the one hand, and the status of a building, as manifested in the role of that building in social events, on the other (Waterson 1990, 142; Gillespie 2000b, 9-11; Kirch 2000; Waterson 2003). On the basis of these studies it is clear that a building can increase in status only over the course of time. The importance of building biographies is perhaps best described by Kirch (2000, 104):

“a process of increased ritual importance as a house ages, as its original builders and inhabitants themselves grow old and pass away to become ancestors, the venerated objects (often buried in the house itself) of house ritual practiced by their descendants.”

Through their cultural biographies domestic houses can, over time, gradually become lineage houses that are the central focus of ritual activities and bind together a group of kinsmen. The processes whereby this transformation takes place should not be construed as a type of historical determinism: the trajectories of individual buildings are shaped to a large degree by contingent factors and the strategies pursued by people associated with houses. Nonetheless, the pedigree of a building is an essential component in a system where building status and ancestry are intertwined, creating a situation in which a shared awareness of building histories may allow for a certain amount of manipulation of the past, but in which the past cannot be rewritten at will. The house as Lévi-Strauss envisaged it, is the arena on which the social competition of groups of people centred on houses is played out. This process occurs within the constraints of the existing configuration of relations between houses. House members will try to attach new members to their house and will try to enhance the status of their lineage house, and one essential ingredient in this process is the pedigree of their lineage house.

This temporal dimension to the articulation of houses and house groups is of great importance for archaeological analysis because we are in a unique position to study this kind of diachronic transformation. In some of the sites that are part of this study, in particular at Aşıklı Höyük and Çatalhöyük, we can trace the development of buildings over long periods of time and over many phases of redevelopment. In those cases where contemporary buildings differ markedly in their elaboration and where we can relate this variability to building pedigrees the concept of lineage houses may help us to understand in what manner society was constituted. Lineage houses are not a cultural universal, however, and their presence needs to be demonstrated rather than assumed. Broadening the concept to include homologous and autonomous houses is not helpful for a better understanding of Prehistoric societies.

2.4.5 COMMUNAL BUILDINGS

Communal structures in Prehistoric societies have often been related to the need for creating institutions that integrate large communities (Adler and Wilshuysen 1990; Byrd 1994; Özdoğan and Özdoğan 1998; Rosenberg and Redding 2000; Verhoeven 2002a). In this model a relation is drawn between community size on the one hand, and the appearance of large communal structures on the other. Thus, large communities are considered a pre-condition for the appearance of communal buildings. The main idea at the base of this hypothesis is that larger community sizes lead to greater social stress that can be relieved through communal activities of which communal buildings are one expression.

This hypothesis can be upended with the evidence from the site of Göbekli Tepe, a site located in Southeast Anatolia that can be dated to the PPNA / EPPNB transition (Thissen 2002a). In the early horizon of this site, designated layer 3, it consisted completely of cult buildings and lacked any evidence of domestic structures, bones of domesticated animals or seeds of domesticated plants (Beile-Bohn *et al.* 1998; Schmidt 2000). Even by a conservative estimate there are at least 20 cult buildings dated to layer 3 at the site (Schmidt 2003, 4). The most plausible interpretation of Göbekli Tepe is that it could have been used as a gathering place of mobile hunter-gatherers from the surrounding region, or, alternatively, of early sedentary communities. In any case, the cult buildings of level 3 can be dated to the initial stages of sedentarisation in the region, and seem to be important in the process of initial community formation, rather than functioning to relieve tensions in burgeoning communities.⁴¹ One argument that seems to support this latter idea is that the monumental buildings of the Fertile Crescent are at their most impressive in the initial stages of the Neolithic (at sites such as Jericho and Göbekli Tepe layer 3), and slowly dwindle in size towards the end of the PPNB (at 'Ain Ghazal and Göbekli Tepe layer 2), to disappear altogether in the following Ceramic Neolithic (Verhoeven 2002b).

It is evident that large amounts of labour went into the construction of the communal buildings (Schirmer 1983, 476; Byrd 1994, 657). Given that a large amount of people must have laboured on these structures for some time, it is clear that this shared activity could have been an important component in the construction of communities. Such a hypothesis has been proposed in the context of megalithic monuments of the Neolithic of northwestern Europe (Renfrew 2001, 109), but may be applied equally well to the public structures of the Near Eastern Neolithic.

Verhoeven has approximated the size of the gatherings that could have come together in the communal buildings of the PPNB Fertile Crescent, and found that even the largest of them could contain no more than about 40 people at any one time (2002a, 247). This is significant given that the populations of associated communities at sites such as Çayönü and 'Ain Ghazal probably ran into the hundreds, if not thousands. Consequently, Verhoeven suggests that these buildings may have been used by a small part of the population only, mainly for ritual purposes, and refers to ethnographically documented men houses that functioned in similar ways (Verhoeven 2002a, 247-8).

Communal buildings can be distinguished from domestic structures because they stand out in their characteristics from normal buildings, which may include their location, the building materials used, the building techniques employed, the presence of unique features or artefacts, and the scale of the buildings (Verhoeven 2002a; 2002c).

In the context of the Central Anatolian Neolithic there are only a few buildings that might be considered as communal buildings on the basis of these criteria. These have been found at the sites of Aşıklı Höyük and at nearby Musular. It is remarkable that similar structures are so far completely lacking at Çatalhöyük, which is a much larger site than Aşıklı Höyük. In chapter 4 the

⁴¹ A similar reconstruction has been proposed for north-western Europe by Bradley (2001, 70), who notes that many of the megalithic monuments in this region were constructed at a time before a farming economy was well established, like the monuments at Göbekli Tepe.

possible functions of the communal buildings at Aşıklı Höyük and Musular will be considered, and how their presence might relate to the specific configuration of social collectivities at these sites.

2.4.6 CLUSTERED NEIGHBOURHOODS

Individual buildings can be arranged in all kinds of spatial configurations. Buildings may be dispersed evenly across the landscape, clustered in small hamlets, or may form part of a larger settlement. Each building may be directly accessible from a more or less public street, buildings may be arranged along communal courtyards, or may be organised in neighbourhood clusters that are accessible only to the residents of a neighbourhood. In this section I will discuss some ethnographical examples of the latter type of spatial organisation, because these may be of help for understanding similar types of spatial configurations in the Central Anatolian Neolithic settlements.

First, however, it is necessary to dwell briefly on the manner in which spatial configurations may be constituted. In archaeology, settlements with some form of regularity are often conceived of as planned in one way or another. It is important to realise, however, that the spatial lay out of a settlement is constituted by the cumulative effects of decisions made by individual builders and inhabitants of houses. In a simple mathematical experiment Hillier and Hanson (1984, 35) have demonstrated how the adherence to a few simple principles determining the appropriate locations for new buildings may result in a very regular settlement plan. Glassie (2004 [1975]) has argued that people constructing folk houses in Virginia were drawing on a large body of knowledge of what a building should look like, most of which operated on the level of practical knowledge and about which people would not have been able to talk discursively. Glassie designates this type of knowledge as ‘architectural competence’. I would argue that people in the Neolithic of Central Anatolia likewise built their houses according to specific principles, and that the accumulative result of their building activities was the spatial configuration that their settlements have.

A *clustered neighbourhood* is defined as a group of mainly domestic buildings that are constructed in such a way as to deter people not resident in that neighbourhood from entering it, making the neighbourhood a communal, rather than a public arena. This type of spatial organisation can be achieved in a variety of ways, only one of which is the complete abolishment of access from the street level that we see in the Central Anatolian Neolithic, and the use of roofs for purposes of communication and transport. In this respect it is not so much the use of roofs as an access route that is of interest, but the fact that the access of a settlement is organised in such a manner that each neighbourhood is a dead-end destination into which one enters only when one has business in that area.

In traditional Near Eastern towns and villages in particular, we can encounter striking examples of clustered neighbourhoods and study how this type of spatial configuration is both a function and an outcome of social organisation.⁴² Good publications on clustered neighbourhoods can be found for Jordan (Antoun 1972; Biewers 1997), and Iran (Horne 1994, fig. 16). In Jordanian villages neighbourhoods are often inhabited by a group of people with the same tribal affiliation. Although these tribal affiliations are often recent fabrications, and can be modified in the need of changing circumstances (Antoun 1972; 87; Wirth 2000, 340), their importance is no less profound. In the case of oriental cities some examples exist in which the inhabitants of a neighbourhood in an oriental town were organised according to religion or ethnicity (Wirth 2000, 352-7), but these seem to be exceptional. In most cases, some sort of constructed affiliation was created in order to rationalise the existing forms of spatial association (*ibid.*, 340).

⁴² The examples referred to here are mainly derived from the Near East. However, this type of spatial organization in which spatial organization is linked to social organization should not be construed as typically ‘oriental’ as suggested by Wirth (2000, 328-31). For instance, Tait mentions very similar principles of spatial organization for the Konkomba of Ghana (1961, 79-80). Furthermore, the idea of oriental cities as conforming to a coherent type has been challenged in recent studies (Alsayyad 1996; Eickelman 1998, 96-101).

A large number of rules and conventions channel interaction between groups in such settlement. Neighbourhoods are separated by major streets that are accessible to the community at large, but not for outsiders to linger on, who will be asked to state their business or be gone (Antoun 1972, 111; Bianca 1991, 207; Eickelman 1998, 102). The major streets tend to be wide and straight, and activities on them are highly visible. From these main streets subsidiary alleys branch off into the neighbourhoods. These subsidiary streets are generally narrow and winding, and they tend to branch into different directions. As a result, most of the activities that are performed on these 'internal' streets are not visible from the main streets. The internal streets are, as a rule, only accessible to the members of the group that inhabit a neighbourhood, and strangers can only enter as the guest of one of the inhabitants (Costa and Noble 1986, 165; Biewers 1997, 77-80). In the past this distinction between major public streets and communal alleys was sometimes enhanced by doors that blocked the entrance to the communal alleys leading into the neighbourhoods during the night (Bianca 1991; Wirth 2000, 342-6). The alleys within neighbourhoods are often owned by the neighbourhood community, whereas the major streets are public property. As a result the communal alleys can shift or disappear over time according to the demands of the neighbourhood, whereas the major streets tend to remain put (Wirth 2000, 346-8).

The most comprehensive treatment of this type of spatial segregation can be found in a recent volume by Wirth (2000). I have already mentioned his example from Fes, Morocco, to demonstrate that such spatial configurations work remarkably well for tourists from Europe, for whom this spatial organisation, and the underlying mentalities, are completely alien (§2.3.2). However, the point that I want to stress is not so much that spatial configurations determine social interaction (Leach 1978), but rather to indicate the structuring effects of these kinds of spatial configurations. Moreover, I want to point out that these spatial configurations did not develop in isolation, but were part of a specific type of social organisation in which they are rooted. In the terminology of Bourdieu these are 'structuring structures'. In the case of monumental old city centres such as Fes, the clustered neighbourhood spatial configuration may mirror a social order of the past that is no longer pertinent, but in loam built villages this type of spatial configuration will only be reproduced as long as it suits the people who live in them. Today, throughout the Near East traditional villages are being modified and abandoned because they no longer comply with the demands of their inhabitants (Biewers 1997).

In light of these considerations it is reasonable to assume that the clustered neighbourhoods represent a type of social organisation in which neighbourhoods are not considered to be part of the public domain. Furthermore, ethnography suggests that who lives where is generally not random, but that neighbourhoods tend to represent themselves as affiliated or even kin-related groups, even if these neighbourhood identities may often turn out to be fictitious and recent fabrications. Within the frame of these general principles there is of course scope for many types of social configuration, as will become clear in this study. Nonetheless, many aspects of daily life in clustered neighbourhoods from ethnographic studies may be relevant for our reconstruction of society in the Neolithic. For instance, it is clear that in clustered neighbourhoods people are generally much more aware of the private lives of their neighbours than is the case in most modern western communities. This has both advantages, for instance children may move about in the neighbourhood without fears for strangers with bad intentions, and disadvantages, such as the fact that little can be kept secret (Antoun 1972, 111; Geertz 1979, 332; Costa and Noble 1986, 165; Wirth 2000, 342-6).⁴³

In this study these general principles of life in clustered neighbourhoods will be treated as hypotheses rather than certainties. These hypotheses will need to be tested and elaborated upon using contextual data on the uses of space within the individual neighbourhoods and their

⁴³ The word 'privacy' is avoided in this study, because I feel it is too closely associated with the scale of the individual and the nuclear family, and cannot be used for other social collectivities such as neighbourhoods (cf. Meskell 2002, 1).

constituent houses. Nonetheless, I believe that these hypotheses provide an important first step towards understanding the clustered neighbourhood settlements of the Central Anatolian Neolithic and what they can tell us about the communities inhabiting them.

2.4.7 LOCAL COMMUNITIES

Over and above the level of clustered neighbourhoods that I have discussed in the preceding section we can distinguish a larger and more encompassing social collectivity in our archaeological record. This consists of the complete population of a settlement. Following Gerritsen (2004) I will designate this group as the ‘local community’. On this scale of social association, identities are less grounded in shared activities, and ideational aspects are more important. In the larger settlements not everybody will necessarily know each another first hand, although in most cases people will still be aware of other people’s identities and doings. Kosse (1990, 284) writes that in communities of up to 2.500 inhabitants, people will still be able to monitor each other on the basis of gossip.

It is obvious that it is much more difficult to reconstruct local communities than clustered neighbourhoods, for the simple reason that completely excavated settlements are extremely rare in archaeology. Even in those cases where we do have large horizontal exposures, for instance at Aşıklı Höyük where a substantial part of the settlement has been excavated, there are difficulties concerning the contemporaneity of the different parts of the settlement (see chapter 3). Thus reconstructions of the size of local communities, and the number of clustered neighbourhoods that constitute these communities, must, by default, remain tentative.

Nonetheless, without an attempt at reconstructing society at this level our picture will remain incomplete, and it will not be possible to contextualise and understand smaller social collectivities. Furthermore, although reconstructing local communities might be problematic, my interest is mainly with very general characteristics. A population running into the thousands clearly has a different archaeological profile than one of a few hundred, and must have been organised in a very different manner (Kosse 1990; Dunbar 1992; Bernbeck 1994; Bintliff 1999). For instance, local communities larger than 2000 people tend to be predominantly endogamous (Bernbeck 1994, 39).⁴⁴ By carefully analysing the nature of the evidence, such as the interval before rebuilding when a house site is abandoned and the building density in a settlement, as well as the size of the site in question, it is possible to arrive at an approximation of local community size that can be used as a basis for exploring these kind of issues.

2.4.8 MICROCOSMOS IN THE BUILT ENVIRONMENT

This study is primarily focussed on the social constitution of society, that is the articulation of social collectivities and their configuration in the fabric of society. By contrast, symbolic structures are not of primary concern to this study. However, a large number of studies have pointed to the importance of the symbolic dimension of houses and settlements, and it is for the sake of completeness that this dimension of the built environment is taken into consideration. In this section I will explore the potential of studying symbolism in relation to the settlements of the Central Anatolian Neolithic.

In anthropology many researchers have discovered that houses can embody dualities that are important in the structuration of society. For instance, certain areas of the houses may be associated with female activities, and other parts may be considered male. To this basic opposition other dichotomies may be linked, such as sacred and profane, nature and culture etc. The exact configuration of such symbolic schemata varies with each cultural horizon, but there is an overall structural similarity in the cases discussed by anthropologists. Through the ordering of space, and the objects within them, structures are perceived and reproduced in practice. These types of buildings, which embody structure, have been termed ‘structuring structures’ by Bourdieu (1977, 90), but are most commonly referred to as ‘microcosmos’ (Ellen 1986).

⁴⁴ I will return to such relations between local community size and social organisation in chapter 9.

Bourdieu has written a classic paper on the organization of social and symbolic categories in the Berber houses of Algeria (1973). The Berber house is built according to a fixed format, with fixed positions for the two doors, the weaving loom, the storage vessels, the sleeping platform, the stable etc. These objects are all associated with specific concepts, and their spatial relations express a conceptual system of oppositions, homologues, and hierarchies, such as male: female, outside: inside, day: night. Structural building elements are also accorded a role in this cognitive scheme, as are the cardinal orientations.

A similar study has been done on the house of the Atoni, a group living in Timor, Indonesia (Cunningham 1973). The Atoni houses are built according to a fixed format, with locations for platforms, the hearth, storage etc. These are determined by the cardinal directions, which have specific associations. The objects and the structural elements of the house all have a particular meaning. For instance, the surroundings of the house are seen as male, while the interior of the house is the female domain. Within the house the sacred upper part is associated with maleness, and the lower part is conceived as being female. Using spatial relations between elements, the structural relations of opposition, association, homology, and hierarchy which are central to the Atoni cosmos are constituted.

Many other examples of studies in which houses feature as a 'microcosmos' can be mentioned (Hugh-Jones 1979; Nordholt 1980; Moore 1986; Tanner 1991; Richards 1996). It has even been suggested that this type of house symbolism may be a panhuman feature in preliterate societies (Cunningham 1973, 235; Forth 1981). In some societies similar symbolic principles were held to operate in the organisation of settlements and their location in the landscape (Ortiz 1969; Howell 1995, 157-60; Richards 1996).

A famous example of this type of symbolic ordering of space at the level of settlement is that of the Tewa Pueblo, in the South-western USA. It is built in relation to: first, four sacred mountains, roughly in the cardinal directions; second, four sacred hills located between the mountains and the village; and, third, four shrines, located on the edge of the village. Within the village ideally four plazas are present, but the foremost amongst these is the south plaza. Central in this plaza is the 'earth-navel', in which medicine men plant crops each year to insure a productive yield of the land (Ortiz 1969, 18-21).

Given the prominence of the microcosmos model it is not surprising that the theme has been taken up in archaeology (Hodder 1987; 1990; Pearson and Richards 1994a; Verhoeven 1999). By far the most influential study has been Hodder's *The Domestication of Europe* (1990), in which he argues that the house acted as structuring principle in Neolithic symbolism, bringing together a set of linked oppositions revolving around the central opposition of nature and culture.⁴⁵ Hodder refers to this symbolic dimension of Neolithic houses with the term 'domus'. According to Hodder it was in the *domus* that the symbolic structures central to the Neolithic were given shape, celebrated and reproduced, and it was through the *domus* that people conceived the Neolithic way of life. The *domus* is opposed to the outside world, termed 'agrios', while the boundary between the two was constituted by the door, or 'foris'. Hodder argued that it was through the *domus* that distinctions between wild and domesticated, nature and culture, male and female, raw and cooked etc. were conceived.

Hodder's book has been very influential, giving rise to a series of studies in which the cognitive dimension of the Neolithic was emphasised (Tilley 1996; Whittle 1996; Thomas 1999;

⁴⁵ Although a crucial element of the *domus* concept, the opposition between nature and culture, or wild and domestic is not self-evident. Ingold has argued that it is essentially a modern opposition (see also Van de Velde 1992, 246). Regarding an ethnographic case of horticulturalists he wrote: "both humans and the animals and plants on which they depend for a livelihood must be regarded as fellow participants in the same world, a world that is at once social and natural" (Ingold 1996, 22, *italics original*).

Bailey 2000).⁴⁶ Çatalhöyük plays a key role in the domus model, in that the concept was first developed on the basis of the evidence from this site (Hodder 1987; 1990, 4-11). Some of the arguments in the Çatalhöyük data upon which Hodder based his domus reconstruction now appear to be problematic. For instance, with regard to the burials, Hodder follows Mellaart's interpretations that males were associated with arrowheads and weapons, and that male burials occur to the north of females (1990, 9). Both statements can be demonstrated to be inaccurate (Angel 1971, 77; Todd 1976, 65; Hamilton 1996, 245; Düring 2003). Likewise, Hodder's (1987, 45) interpretation of clay protrusions containing bone elements, such as vulture beaks or boar tusks, as breasts seems speculative, given that these features may occur in vertical configurations or singly. Thus, there are substantial difficulties with the domus model as it stands (*cf.* Hodder and Cessford 2004, which provides a much more nuanced reconstruction). Nonetheless, it is clear that the spatial configuration of buildings at Çatalhöyük is highly standardised, and it does not seem unlikely that this configuration had symbolic meaning.

A more profound problem with the domus approach is the exclusive focus on the individual houses as arenas of social and symbolic construction. Such a focus on individual households is suspect not only because it imposes a conception of the family as the most important element for the socialization of individuals (§2.4.3; Allison 1999, 8; Brück and Goodman 1999, 3-4), but also because it neglects an important element of Neolithic societies: the fact that people lived in settlements, and not just in isolated houses. The *domus* is presented as a completely autonomous unit, and one is left with the question why people bothered to live in settlements (Düring and Marciniak 2005).

From the discussion so far it may seem that the 'microcosmos' model, in which houses and settlements embody sets of linked symbolic oppositions that are central to the society in question, is relatively unproblematic, and has cross-cultural relevance. However, matters are not that simple. First, there are many settlements and many houses where these types of symbolic structures do not seem to be attached to the built environment (Ortiz 1969, 131-2; Ellen 1986, 27-8; Carsten and Hugh-Jones 1995, 23; Vellinga 1999, 99). Second, most of the classic studies of built microcosmos were written during the 1970s and 1980s and seem to have been influenced by the then fashionable structuralist and hermeneutic approaches in the social sciences. The critiques of these approaches in general can also be applied to this specific type of study (Pettit 1975, 90; Hodder 1982a, 8; Verhoeven 1999, 16). In particular, Ellen (1986, 25) has argued that the anthropologists who studied houses and settlements as microcosms have modified their ambiguous evidence in order to create a consistent and simplistic account of these symbolic systems "by denying certain connections, reifying others, and eliminating the uncertain". In this manner a rather arbitrary symbolic schema is constructed that seems to have little content (Carsten and Hugh-Jones 1995, 23; Bloch 1998a; Vellinga 1999, 99).

Notwithstanding these considerations it is clear that in some cultural horizons buildings are constructed according to a standardised design often with a specific configuration of elements within the building and with a standardised orientation. It is also apparent that in many cases these buildings may be charged with symbolic associations. In archaeology we can investigate whether the buildings that we excavate adhere to similar principles, bearing in mind that this need not be the case. In some instances, where the evidence is particularly rich, it may be possible to bring out some of these symbolic associations. However, I feel it is prudent to indicate the tentative nature of reflections on Prehistoric symbolic systems. In this study the spatial configurations of buildings will be investigated with regard to recurrent organisations of space and orientations, in order to

⁴⁶ The domus model has also been criticised for several reasons, including 'mental' determinism, providing a grand narrative that does not account for cultural variability, a bourgeois and male chauvinist view of the past, and for not fitting with the data in specific regions (Van De Velde 1992; Garfinkel 1998; Allison 1999, 10; Halstead 1999, 82; Spencer-Wood 1999).

establish whether spatial configurations and the cardinal direction could have been important in the symbolic systems of Prehistoric people, but no efforts will be undertaken to reconstruct these.

CHAPTER 3: MATERIAL ISSUES OF LOAM BUILDINGS

The material properties of the residues studied by archaeologists can provide an important baseline for our understanding of the past. Given that the properties of materials such as loam and wood operate similarly today as in the past, we can use insights from recent periods on technological issues to interpret ancient practices. In the case of the loam architecture with which this study deals, the material aspects of traditional building practices in the Near East can fruitfully be compared to those of the Central Anatolian Neolithic. This comparison is an essential first step in any analysis of ancient buildings for two reasons. First, it may help us to reconstruct buildings and understand the manner in which material properties structure the residues that we study. Second, an understanding of the material properties of buildings is important because it enables us to isolate culturally specific elements of buildings from those determined primarily by technology and material. This chapter serves to outline some general principles of loam building traditions that will serve as a framework for understanding the specific settlements that will be introduced in subsequent chapters.

3.1.1 REASONING BY ANALOGY

The archaeological enterprise is based on analogical reasoning. At the core of the discipline is the notion that the residues from the past are structured by a series of principles that are similar to those that can be observed in the present. On the basis of the material and social conditions of our own world we can perceive those of another period. In its simplest form this perception can be an intuitive recognition of the nature of an object. For instance, mention can be made of a commonly excavated artefact such as a bone needle that is in many ways similar to the ones we have at home, or a necklace found in a burial. In other cases the residues that are found may be more difficult to interpret, however. From the early beginnings of archaeology it has been realised that the world of which most of us are part, that of the industrialised and urbanised societies of the west, is not the most appropriate one for understanding the Prehistoric societies that we study. In order to gain a fuller 'frame of reference' as Binford (2001) put it, archaeologists have turned to small-scale societies across the globe in order to arrive at a more complete understanding of the nature of material culture. This quest has variously been labelled 'ethnoarchaeology', 'action archaeology' and 'living archaeology'.

A substantial body of literature has been written on how analogies drawn from ethnographical studies may be used to interpret archaeological remains (Watson 1980; Gould and Watson 1982; Hodder 1982c; Wylie 1982; Van Reybrouck 2000; Binford 2001; Verhoeven 2005). For the purpose of the present study it is necessary to briefly outline the different types of analogies that exist in the archaeological literature. Two modes of analogical reasoning are generally distinguished. First, we can mention the 'direct historical approach', which can only be used in areas where we are dealing with cultural traditions that connect a present culture with one that existed in the past. For example, some form of knowledge of modern Buddhism is of crucial importance if we want to understand Buddhist monuments from the past. It is important to realise, however, that even if we are dealing with 'living' cultural traditions, both the role and the relations of elements in a cultural tradition may have changed significantly in the course of time. In cases where we cannot apply the 'direct historical approach', the second, cross-cultural, mode for making analogies is used. Cross-cultural analogies are especially useful with regard to technological issues and man-environment relations.

In addition to the opposition outlined above, a second opposition has been drawn between analogies that are based on formal similarities on the one hand, and analogies that are relational, in

which there are additional contextual links to support a hypothesis, on the other (see table 3.1).⁴⁷ In a formal analogy an object is interpreted as a fishhook because it resembles one. In a relational analogy there would be additional evidence for fishing practices, such as fish bones. There is a continuum from formal to relational analogy (Hodder 1982c, 18) and that they can be found both in the ‘direct historical approach’ and in the cross-cultural approach (contra Verhoeven 1999, 68).

Mode of reasoning	Type of analogy	
	Formal analogy	Relational analogy
Direct historical approach	Direct historical formal analogy	Direct historical relational analogy
Cross-cultural approach	Cross-cultural formal analogy	Cross-cultural relational analogy

Table 3.1: Four modes of analogical reasoning used in ethnoarchaeology.

The important point with regard to the distinction between the *direct historical analogy* and the *cross-cultural analogy* is that in the case of the former we are in a much stronger position for the reconstruction of ancient mentalities and beliefs. From the privileged understanding of a tradition persisting into the modern era or documented in historical sources we can postulate hypotheses for the more distant past. For instance, on the basis of modern Christianity we have a privileged point of departure for understanding Medieval liturgical art. By contrast, in the case of cross-cultural analogies it is often no longer possible to understand cultural practices in the same manner. For this reason cross-cultural analogies tend to focus on technological issues, or interpret meaning in a general, rather than a specific, manner.

Ethnoarchaeological research has always been part of the archaeological programme, but became especially prominent as a field of specialisation during the 1960s and 1970s. Much of this ethnoarchaeological research was undertaken within the processual theoretical framework in which material culture was seen as a correlate of social life. The aim of this type of research was to arrive a set of cross-cultural principles for interpreting material culture. This understanding of material culture was challenged by Hodder (1982b) on the basis of ethnoarchaeological fieldwork in Africa. He argued that material culture is meaningfully constituted, and that “there is no direct, universal cross-cultural relationship between behaviour and material culture” (Hodder 1986, 14). This argument has been very influential (see also chapter 2), and has undercut one of the main motivations for doing ethnoarchaeology. It is remarkable that ethnoarchaeological research has rapidly dwindled in importance since the early 1980s (Van Reybrouck 2000, 182). It is only recently that new books have started to appear on the subject (David and Kramer 2001; Wendrich and Van Der Kooij eds 2002).

I argue that the focus on material culture as a correlate of particular social phenomena has obscured the most important contribution ethnoarchaeology can make to the discipline of archaeology: to provide insights into the structuring effects of material, technology, and environment. Studies dealing with such issues do exist for some categories of material, for example, for flint (Andrefsky 1998), but are less well developed for others, such as traditional loam building practices. Nonetheless, important insights into the nature of loam buildings can be obtained from a variety of studies, which will be introduced in the next section.

3.1.2 STUDIES OF VERNACULAR LOAM BUILDINGS

Near Eastern archaeologists working on ancient building practices have long been aware of the potential of studies on vernacular building practices for the past. Many of the buildings uncovered in excavations or described in historical sources seem to use construction materials and building technologies similar to those in vernacular building traditions. In these traditional building

⁴⁷ The structural and complex analogies recently proposed by Verhoeven (2005) are, I would argue, merely variants of the relational analogy.

practices locally available materials are generally used to construct buildings ideally suited to the regional climatological conditions. Given that both the locally available building materials and the climate are in many cases comparable to conditions in the past, studying local vernacular building practices seems a logical approach for archaeology.

The idea of studying ethnographic practices in the Near East in order to understand the past has a long tradition in the studies of the Ancient Near East. Some of this ethno-archaeological work was influenced by the desire to 'illustrate the Bible', by documenting ethnographic practices in Palestine in order to better understand the world of the Old Testament (Paulsen 1762; Thomson 1859). Generally it was assumed that there was a direct historical continuity in practices and technologies from the recent past to the distant past (Van Der Kooij 2002, 13-4). The material, technological and economical basis of Arab culture was seen as perpetuating the world described in the Bible, but at the same time those parts of their culture that did not fit into the mould were disregarded or even despised. In such a framework it sufficed to document the distribution of sub-recent habits and technologies. That descriptive labour was done meticulously and culminated in extensive publications (see for example Paulsen 1762; Thomson 1859; Dalman 1928-1942, Wright 1985).

These books provide a wealth of data, particularly on the use and distribution of both materials and technologies in the sub-recent past in the Near East. The value of these data is often limited, however. The information contained within these studies generally takes the form of a listing of the distribution of elements. It may be indicated in which areas we can find stone architecture, where loam is the predominant building material, and which species of timber were used for building in certain areas. For the purposes of archaeological analysis, however, the distribution pattern of certain types of raw materials, and their use in vernacular buildings, is not relevant in itself. The question *why* things are done in a certain manner is often not addressed. Building technologies are related to a range of factors including topography, climate and cultural factors, and are influenced by the availability of natural resources. It is such relations between building technology and determining factors that can bring a better understanding to archaeology.

The descriptive tradition of ethnoarchaeology that was concerned primarily with drawing up lists of types and documenting their distribution can be contrasted with more recent ethnoarchaeological studies in the Near East. These studies have focused on social, rather than technological, aspects of material culture (Watson 1980; Krafeld-Daugherty 1994; Aurenche *et al.* 1997; Biewers 1997; Yakar 2000). A typical research question in this school of thought is, for example, whether the variability in house sizes of a settlement is related to differences in wealth and / or status of their inhabitants. From various ethnoarchaeological case studies it soon became clear that such issues are to a large degree culturally determined, and that general models cannot be drawn up (*cf.* Hodder 1982c).

In relation to these culturally specific links between material culture and society, ethnoarchaeological studies of sub-recent practices in the Near East seem to have relevance particularly for the study of later periods in archaeology, in particular the Byzantine and Islamic periods. It is possible that some of the sub-recent practices could be part of a cultural tradition reaching back to these periods. The direct historical approach cannot be used in the same manner for earlier periods, such as the Neolithic, however.

Despite the absence of a direct cultural connection between traditional sub-recent practices and the Prehistory of the Near East, some researchers felt that ethnographic data from the Near East were particularly appropriate for drawing analogies with the past in that same region (Kramer 1979, 157). On the basis of that perspective a lot of important descriptive information on traditional practices in the Near East has been gathered.

The argument that local traditions are more appropriate for drawing archaeological analogies may seem similar to the position of the adherents of the direct historical approach. However, there is one important difference. Whereas in the older literature continuity in technological traditions is simply assumed, in the more recent publications it is merely argued that present practices may

provide a more relevant analogy than examples from other regions. Such a position can be based on a number of arguments. First, even if the cultural differences between the present inhabitants and the societies excavated by the archaeologist are often clearly profound, technological traditions of house construction and maintenance often seem deceptively similar. Second, most of the vernacular building traditions of the Near East constitute optimal adaptations to the local climate using local resources. We can reconstruct the climatological conditions of the past in general terms, as well as the most important changes that occurred in vegetation belts (see chapter 1). Given that both climate and vegetation have remained remarkably similar over the millennia, apart from a certain amount of deforestation in the more marginal areas, it is plausible to assume that the conditions to which Prehistoric people had to adopt, and the resources they could apply, were to a large degree similar to those of the sub-recent past.

On that basis we can use knowledge concerning traditional building practices as a good frame of reference for understanding Prehistoric buildings. A lot can be learned both from general studies on loam architecture (McHenry 1984; Houben and Guillaud 1994; Oliver ed. 1997), and studies dealing with building technologies in specific regions of the Near East (Wulf 1966; Christensen 1967; Hall *et al.* 1973; Wright 1985; Horne 1994; Aurenche *et al.* 1997; Facey 1997). From such studies a wealth of information can be drawn that is highly relevant for the study of ancient settlements in the Central Anatolian Neolithic.

In the following sections a number of issues relating to vernacular building practices in the Near East will be discussed. In particular, there are a series of practical issues that characterise the Central Anatolian Neolithic settlements that are best introduced in a general chapter, rather than in a piecemeal fashion scattered among the discussions of individual sites in chapters 4 to 8. This chapter will deal with issues that are common to this group of settlements. Topics relate to: first, the availability of raw materials and how the choice of building materials may be affected by climatic factors; second, functional differentiation of buildings and variation in building technologies; third, techniques of construction and maintenance; and, finally, the dynamic nature of the loam built settlements.

3.2.1 REGIONAL VARIABILITY IN BUILDING TRADITIONS

The Near East in general, and Turkey in particular, is characterised by an enormous variety in building traditions (Wulff 1966, 113-4; Christensen 1967; Küçükerman 1991). These building traditions are linked to a range of factors, including the availability of natural resources, the local climate, the intended function of buildings, and local traditions (*cf.* Christensen 1969, 126; Rapoport 1969).

With regard to the relation between building materials and local resources, some clear patterns can be found. For instance, timber seems to be a much sought after material in all regions, but its availability varies dramatically, and this is reflected in the local building traditions. In regions where timber is available in abundance, for instance in the Marmara and the Pontus regions of Turkey, and in the Mazandaran region of Iran, traditional buildings are often constructed entirely of timber. In the intermediate regions of the Near East, where timber is less readily available, buildings generally take the form of timber framing, with pisé, loam bricks, or in some cases stone masonry, in between the frames. This type of building can be found in the northern part of the Anatolian Plateau, and in the mountains of Eastern Anatolia. Finally, in the steppe and desert regions of the Near East timber is used even more sparingly. In most cases it is only used for supporting the roof, and for windows and doors. In certain areas of Iran timber is so rare that roofs are constructed in the form of domes (Christensen 1967, 133).

The availability of stone, like that of timber, varies in the Near East. In regions where stone is readily available, it is often preferred over loam as a building material, except where timber is the predominant building material. In practice, stone buildings are most often found in the Aegean and Mediterranean regions of Turkey, as well as in some mountainous regions in the south and east of the country.

Loam, which consists of a mixture of clay, silt and sand, with a particle size smaller than 10 μm (Van Der Linde, 2003, 23, 87), is the predominant building material in the great alluvial plains of the Near East, such as the Konya Plain, and the Mesopotamian Plain.⁴⁸ It is used both for the walls and the roofs of buildings.

From the above it may appear that the choice of loam as a building material in most of the clustered neighbourhood settlements of Central Anatolia was, above all, determined by the absence of other building materials in the environment. Such a conclusion would be unwarranted for a number of reasons. First, this choice of building materials does not always follow from the availability of wood and / or stone. In the surroundings of Aşıklı Höyük, for example, stone is abundantly present, but loam was nonetheless preferred as the normal construction material.⁴⁹ Timber, too, was present in the immediate neighbourhood of Aşıklı Höyük (Woldring 2002). Likewise, the surroundings of Çatalhöyük are reconstructed as slightly wooded (riparian forest stands), and dense oak forest were no more than 20 kilometres distant (Asouti 2005, 247, fig. 10.19). At the Canhasan sites natural stands of oak and juniper were reported at no more than 10-20 kilometres away, in the valley of the Selereki River (Willcox 1979, 9). The situation for Erbababa is less well studied, but the site is situated close to mountains that contain forests of oak, pine and juniper (Van Zeist and Bottema 1991, 28). At all the Central Anatolian Neolithic sites people could have opted for different building materials and technologies than the ones that they did. This means that there was a cultural preference for constructing in loam.⁵⁰

Second, there is a clear advantage to using loam as a building material, namely, its quality for insulation (Koyunlu 1982, 261; Aurenche *et al.* 1997, 79; Facey 1997, 70-4). Loam buildings have a low thermal conductivity, which means that they are slow to react to temperature fluctuations. A loam wall conducts between two to four times less heat than a concrete wall (Facey 1997, 70-1). Buildings constructed with loam take a long time to warm up, and subsequently they take a long time to lose their heat. Due to these characteristics loam buildings even out climatic extremes in warm climates, and remain cool during the hottest hours of the day, during which outside climates can rise to over 40 °C in summer in many parts of the Near East, including Central Anatolia. During the later part of the afternoon and the early part of the evening the interior of a building may be warmer than the exterior, due to the time lag during which the building loses its warmth. In summer this part of the day is usually spent outside, and in many parts of the Near East people sleep outside the building in this part of the year, for instance on the roof. By contrast, in the winter, the afternoon heat optimum of loam buildings is regarded as a positive feature, and activities are performed indoors. This is also the rainy season, during which it is not comfortable to sleep outside. Considering these characteristics of loam buildings we can understand why they are particularly well suited to the hot climate we find over large parts of the Near East.

⁴⁸ Throughout this thesis the term 'mud-brick', which is the most common designation for the traditional loam sun-dried bricks of the Near East, is deliberately avoided. 'Mud-brick' is a normative term that is tied up with a negative evaluation of this building material (Facey 1997, 16). 'Mud' is a term that doesn't have any precise meaning, other than wet earth. By contrast, loam is simply a designation of particular type of soil that is generally used for construction purposes (Van Der Linde 2003, 23). Moreover, the word 'loam' allows me to include the identical material used in bricks and for roofing purposes, under the same designation.

⁴⁹ However, stone was used as a building material both in the central complex of Aşıklı Höyük, and in the neighbouring site of Musular (Özbaşaran 1999).

⁵⁰ G. Duru (2002) has interpreted the preference of loam over stone as a building material at Aşıklı Höyük as evidence for a migration to the site from a flat plain environment where stones are absent, such as the Konya Plain. In theory such an argument could be made if people at Aşıklı Höyük only used loam in their initial stages of occupation, and later shifted to stone as a building material. However, throughout the 1000 years that the site was occupied people continued to prefer loam. In fact, the basis of Duru's suggestion is simply a perceived superiority of stone as a building material. Obviously the people at Aşıklı Höyük disagreed, and probably not because they were simply conservative. It is most likely that they had good reasons for preferring to build in loam.

It is likely that these thermal properties of loam buildings were also cherished in the Central Anatolian Neolithic, and that the preference of loam over other building materials was related to these qualities. I have already pointed out that at many of the clustered neighbourhood settlements of the Central Anatolian Neolithic alternative building materials were available in the environment within close range. Given these circumstances it seems that building with loam was a choice related to the insulating advantages of loam, and the comforts that loam buildings can provide in the Central Anatolian climate.

3.2.2 RELATING BUILDING FUNCTIONS AND TECHNOLOGIES

Even within a single village, or a house, there may be a considerable amount of variability in the choice of raw materials, construction technologies, and final treatment of structures. As an example I will present a building discussed by Christensen (1967, 118-9) from Dartüt, western Iran.

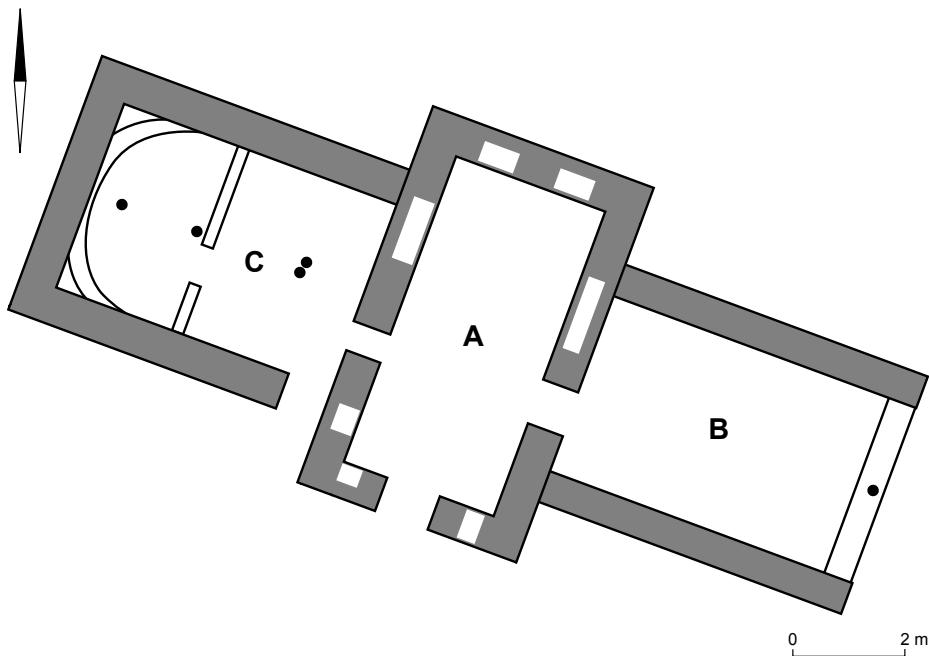


Figure 3.1: House of Haji Farasi in Dartut, Iran (based on fig. 5 in Christensen 1967).

The three spaces of this particular building have been roofed in three distinct ways. The middle section A carried a flat roof, consisting of girder beams put crossways along the width of the building, in turn covered by smaller branches or matting, and with a thick deposit of loam on top. The western section B was beneath a 'Pfostenfirstdach'. This type of roof is constructed by laying one central girder beam across the long side of the room. In this case the central girder was supported by three posts, and served as a basis for smaller joist beams, that rest on the beam and the wall in a shallow angle. On top of the joist beams were twigs and a deposit of loam. Finally, the eastern room C of this house, was covered by a 'Spreizenfirstdach' which consists of a matting of reeds over a central thick bundle of reeds, spanning the room lengthwise, and supported by beams coming from the walls at an angle of about 60 degrees. In this roof no loam was used.

The use of three different types of roofs in a single structure seems peculiar, but can be explained in a fairly straightforward manner. The central room A was in use for living purposes, hence relatively more effort and resources (particularly in terms of beams) were put into the construction of a roof with good insulating properties. In a warm climate it is an important enhancement of the quality of life to have a living room that remains relatively cool. The western

room B was in use as a stable. The stable had a roof that required less timber to construct, but the room below was not as comfortable as one with a flat roof. Finally, the eastern room C was used for storage. Insulation of this room was apparently not considered to be important, and in this case the roof seems to have merely served to keep out rain and animals.

Apart from the posts in room B, which may not leave a clear material residue, it is not evident from the plan that these three rooms were roofed in a different manner. This example may serve as a cautionary tale with regard to archaeological interpretation. In this particular case the example is not directly relevant, because in Central Anatolia, where timber is less scarce than Iran, all roofs tend to be of the flat roof type. What is interesting about the example however, is the fact that different building materials and technologies may be used for rooms with different functions. In this part of Iran living rooms always have a flat roof, whereas rooms with other function frequently have a roof of inferior quality (Christensen 1967, 125). Generally rooms with a domestic function seem to be those for which most effort is made, and for which better quality materials are used. For instance, in the walls of the living room of Haji Farasi, a series of niches were present that are lacking in the other rooms. This is a type of differentiation that we can also see in the buildings of the Central Anatolian Neolithic.

For example, on the basis of the differential treatment of walls and floors of adjacent rooms, we can oppose spaces that were plastered on a regular basis from those that were not (see §3.4.4). Such forms of differential treatment of rooms can be linked to their function, which can ideally be determined from the objects and features found in them. Additional clues may be found in the distribution of micro-artefacts, and the micro-morphological and chemical characteristics of floors and their compartments (Matthews *et al.* 1996; Cessford 2003; Özbal *et al.* 2004).

3.3.1 BUILDING MATERIALS IN THE CENTRAL ANATOLIAN NEOLITHIC

In general terms buildings constructed of loam may seem similar over large distances of the Near East. Such buildings share the quality of low thermal conductivity discussed above, and they are prone to similar processes of erosion, to mention but two characteristics. However, at a more detailed level a wide spectrum of highly specific local traditions can be observed that are related to local resources and climatological conditions on the one hand, and local building traditions on the other (Houben and Guillaud 1994, 4). As it was put by Fathy (1973, 19):

“Until the collapse of cultural frontiers in the last century, there were all over the world distinctive local shapes and details in architecture, and the buildings of any locality were the beautiful children of a happy marriage between the imagination of the people and the demands of their countryside.”

To mention one example, walls of clay may be built in a number of techniques, the most common amongst which are *pisé*, in which walls are constructed by ramming wet loam between braced shuttering boards; *cob*, in which walls are built up with lumps of loam without the use of shuttering; and loam bricks, in which walls are constructed of sun dried bricks (Wulf 1966, 108-12; Christensen 1967, 91-4; Houben and Guillaud 1994; Facey 1997, 90-1).

A large amount of variability in vernacular building traditions can likewise be documented for other aspects of building, including the methods of roof construction, and the manner of constructing wall foundations. The Central Anatolian Neolithic sites have their own particular building practices. In the following sections the focus will be on the particular set of practices surrounding the use and transformation of natural resources for obtaining building materials in this horizon.

3.3.2 LOAM SLABS

The first issue of interest concerns the elements from which the walls were constructed in the Neolithic of Central Anatolia. There are three types of basic building elements in use during this period. In the earliest sites under consideration, namely Aşıklı Höyük, Canhasan III, and Çatalhöyük, a peculiar type of building element is encountered that is best described as ‘loam

slab'.⁵¹ In later sites, particularly at Canhasan I, and probably in the later levels of Çatalhöyük, we find loam bricks. Finally, at the sites of Erbaba and Musular and in the monumental complexes at Aşıklı Höyük, we have stone built constructions.

The loam slabs of the Central Anatolian Neolithic are long and rectangular. They are of irregular sizes, often measuring over a metre in length, but generally no more than 10 centimetres in height. The loam slabs are in many cases of highly distinctive colours and soil matrices (Tung in prep), and these often vary considerably from one batch of bricks to the next. This may suggest that they were made from specific off-site sediments (Matthews *et al.* 1996, 306; Matthews and Farid 1996, 289b).

The earliest loam slabs of Central Anatolia were found at Aşıklı Höyük, and are described in the following manner:

“Mud-bricks are most probably not moulded, but cut. This is inferred from the different dimensions of the bricks, their thickness being not more than 7-8 cm and their length being of varying ratios to their width. Although they are in various dimensions, very small variation in their width is observed. In this respect, it seems that they were cut from their bed and carried to the settlement where they were used.” (Bıçakçı and Özbaşaran 1991, 136).

Like the slabs from Aşıklı Höyük those that were found at Çatalhöyük range considerably in their sizes: widths are mostly about 25 centimetres, lengths vary between 76-125 centimetres, and heights range from 5-15 centimetres (Matthews and Farid 1996, 289). This variability in size suggests that the slabs at Çatalhöyük, like those of Aşıklı Höyük, were not shaped in a mould.

A remarkable aspect about the size distribution of these slabs is that they seem much too large to be practical for construction purposes. Mould-shaped loam bricks are invariably much shorter than these slabs, which makes them easier to handle, and less prone to break. It has been suggested that the slabs from Çatalhöyük, like those of Aşıklı Höyük, may have been transported on wooden boards (Mellaart 1967, 55; Matthews and Farid 1996, 289).

At present it is not possible to detail the composition of the loam slabs at Aşıklı Höyük and Çatalhöyük. At Aşıklı Höyük there seems to be some evidence for vegetal temper, often in the form of chaff, in the loam slabs (Bıçakçı and Özbaşaran 1991, 136), but a detailed report has not been published so far. Likewise, at Çatalhöyük, loam slabs were mixed with a vegetal temper (Tung in prep). These vegetal additions add considerably to the strength of loam as a building material (Wulf 1966, 109-10; Horne 1994, 133; Van Der Linden 2003, 89-94).

The data from the Canhasan sites are less specific than those from Aşıklı Höyük and Çatalhöyük, but it seems that loam slabs were used there too. At Canhasan III an example is documented in a section drawing that measures 140 centimetres in length (French *et al.* 1972, fig. 3).⁵² In the earlier part of the Canhasan I sequence, in layers 7-4, bricks were roughly shaped but not mould made (French 1998, 20). The size of these bricks is given as 0.50 by 0.30 by 0.08 metres, but these dimensions are often accompanied by question marks, indicating some uncertainty on their definition.

The use of loam slabs in the Early Neolithic is mirrored in other parts of the Near East (Verhoeven 2000a, 8; Bıçakçı 2003), and seems in general to precede the use of sun-dried mould-shaped loam bricks with standardised sizes that become common in later stages of Prehistory and continue to be used up to the present. It is clear that the latter type of loam bricks are stronger as a construction material, and it will be argued in this study (§8.2.2) that in the context of the Central Anatolian Neolithic the introduction of such bricks was related to the appearance of a second storey.

⁵¹ Loam slabs are used today in a variety of regions, such as Northern Europe, Missouri, New Mexico, Libya, and Burkina Faso (Houben and Guillaud 1994, 172-3).

⁵² This brick is cut at an oblique angle, and its true length is probably closer to 120 centimetres (personal communication French may 2003).

3.3.3 LOAM BRICKS

At Canhasan I, from layer 3 onwards, loam bricks start to appear, and these are part of a wider set of practices and technologies that separate the buildings in the Early Chalcolithic period from those of the Neolithic. The fundamental changes in building technology that led to the adoption of loam bricks will be discussed in chapter 8 (§8.2.2), which deals with Canhasan I. There is a possibility that in the upper levels at Çatalhöyük loam bricks were also in use (Mellaart 1967, 55), but this requires further investigation (Tung in prep). Certainly at Çatalhöyük West, which directly follows the east mound occupation, loam bricks were the normal building material (Last 1998b).

Loam bricks are made of carefully processed loam mixed with vegetal temper in a wet condition and subsequently placed in a mould, after which the mould is removed and the bricks are left to dry for a considerable period of time before they are used for construction (Wulf 1966; Christensen 1967; Facey 1997; Van Der Linde 2003). In many cases the soil used for bricks is obtained from tell deposits. As a result, loam bricks often have a colour and composition that is similar to that of the surrounding tell deposits, although their texture differs substantially. This can be contrasted to the slabs that are often made from off-site deposits and are characterised by very distinctive matrices and colours.

3.3.4 STONE

Stone is used as a construction material in the Central Anatolian Neolithic at a number of sites. At Aşıklı Höyük and Musular stone is used only for the monumental buildings, whereas ordinary buildings were made of loam slabs. At Erbaba, however, stone was used as the normal building material. Large stones, up to 50 centimetres long, were placed at the bottom of the walls, and smaller stones were used in the higher reaches.

The distinction between stone and loam walls in the Central Anatolian Neolithic has been interpreted as related to the use-life of buildings, and it has been argued that stone buildings were longer-lasting (G. Duru 2002). In such discussions little note has been taken of the fact that we are, in most cases, excavating only the foundations of buildings, and that the upper part of the buildings with stone walls at Aşıklı Höyük and Musular would most likely have been of loam.

The distinction between stone foundations and loam foundations is most likely related to factors such as the amount of moisture to which building foundations were exposed (more of a problem in free standing structures than in the clustered neighbourhoods of the Central Anatolian Neolithic), and whether or not a building was founded on the walls of a predecessor structure.

3.3.5 MORTAR

Apart from the use of loam in loam slabs and loam bricks it is also used as mortar. The mortar applied in between loam slabs is in many cases as thick as the loam slabs themselves (Bıçakçı and Özbaşaran 1991, 136; French 1998, 20b). At Canhasan I the loam that is used for this purpose generally does not contain a vegetal temper, like the slabs themselves (French 1998, 20b). At Çatalhöyük anthropogenic deposits containing charred fragments and occupation debris were sometimes used for mortar, as well as natural sediments (Matthews and Farid 1996, 289-90). In many cases the mortar applied in between the slabs seems to have been smeared onto the wall surfaces as well.

The use of a thick mortar layer might have enhanced the cohesion of the walls considerably. A major drawback of the loam slabs that were used in the Central Anatolian Neolithic is that they could probably resist relatively little pressure in comparison to a sun-dried loam brick tempered with straw or other materials. To enhance the strength of buildings constructed from loam it is common practice to add elements such as straw, chaff, and dung to the matrix of the loam used (Wulf 1966, 109-10; Horne 1994, 133; Van Der Linden 2003, 89-94).

3.3.6 PLASTER

Loam was also used for the construction of floors and wall plaster. A variety of materials were used for plastering walls and for constructing floors. The constituent elements are being investigated at Çatalhöyük. The materials that were used include ‘silty clay to medium-coarse sandy silt loam’ (Matthews *et al.* 1996, 304), in some case with vegetal additions, and in some cases ‘heterogeneous burnt aggregates, charred plant remains and fragments of bone’ (*ibid.*). A particularly conspicuous plaster is made of calcareous silty clay, and has a white colour (locally called ‘ak toprak’, that is in use in some of the local villages). At Çatalhöyük plaster layers, both on floors and walls, were often applied in couplets, first a very pale brown calcareous silty clay, and second a finishing coat of finer white calcareous silty clay (Matthews *et al.* 1996, 306), which makes the individual plaster couplets easy to distinguish.

At other Central Anatolian Neolithic sites such detailed descriptions of the plaster are not available. At Canhasan I plaster was seemingly made of either brownish chaff-tempered clay, or a finer white-yellowish plaster (French 1998, 20, 25), whereas at Aşıklı Höyük different varieties of loam, without temper, were used (Esin *et al.* 1991, 137).

3.3.7 TIMBER

Timber is used for a variety of purposes in the Central Anatolian Neolithic, for example in the form of beams, serving either as posts or roof beams. Smaller stakes and branches are also used, primarily to support the roof. In addition, timber was used for ladders, and possibly for a shelter construction protecting the roof entrance. There are some indications for the use of specific types of timber in some of the sites. For instance, Mellaart reports the find of two roof beams at Çatalhöyük, one of juniper and the other of oak. These were found in building 61 of level VI (Mellaart 1963, 52). Unfortunately the dimensions of these beams have not been disclosed. The preservation of such beams represents an exceptional situation, since in most cases timber was re-used when a structure was abandoned. At Çatalhöyük this practice is reflected in the so-called ‘PRP’, or ‘post-retrieval-pits’ that are present on all locations where a post had stood. Such beams would have been re-used as post or roof beam, or when no longer suitable for such purposes, would have been used for other purposes or as fuel. Such practices are well known from ethnography, and are related both to scarcity of timber and its suitability for various kinds of recycling (Hall *et al.* 1973, 257; Kramer 1979, 144; Aurenche *et al.* 1997, 79).

The fact that beams were recycled does not necessarily reflect scarcity of timber in the Central Anatolian Neolithic. Obtaining good quality beams is not only a matter of availability, but also involves the investment of a considerable amount of labour and time. The usual stages involved for obtaining beams include: first, suitable trees had to be located, probably at some distance from the site; second, these trees had to be felled and stripped of branches, bark and sapwood; third, they then had to be transported to a suitable location; fourth, where they were left to dry for several months; and, fifth, they were trimmed to the appropriate shape and length (*cf.* Facey 1997, 120-2). Taking into account the amount of labour involved in obtaining beams, re-use of available existing beams seems a logical option.

With regard to the building technology used in the Central Anatolian Neolithic the matter of which kind of timber was used is of considerable importance. In Central Anatolia today, the type of timber most commonly used is poplar, which is appreciated both because it grows quickly and because the tree invests in a straight trunk rather than in its branches. On the down side, poplar is not a very strong timber, and other types of timber such as oak, pine, cedar, and juniper, are preferred over poplar for that reason (Dalokay 1969, 50; Hall *et al.* 1973, 257; Matthews 2005, 360). In the traditional houses in Konya three types of timber were used for roof beams; *katran* (cedar), *çam* (pine), and *kavak* (poplar). There too, poplar was widely regarded as an inferior type of timber, and was only used when no other resources were available (Berk 1951, 141).

In the Neolithic period alternatives for poplar were present within the vicinity of the Central Anatolian Neolithic settlements (see §3.2.1). Oak, juniper and pine were available within a radius

of 20 kilometres from sites such as Aşıklı Höyük, Erbaba, Canhasan I and III, and Çatalhöyük. Timber could, in many cases, be transported to the site via water. In the Çatalhöyük region, Juniper trees were felled in the mountains around Bozkır, 50 kilometres away, and floated down the river until recently (Mellaart 1967, 212; Matthews 2005, 360). These trees were highly valued for their structural strength and resinous aroma.

The only unequivocal archaeological evidence for beams consists of the juniper and oak examples found at Çatalhöyük. On the basis of that evidence, we cannot determine whether oak and juniper constituted the *normal* or the *ideal* building timber at Çatalhöyük. However, it is remarkable that *Quercus* (oak) and *Juniperus*, are amongst the most common species in the charcoal assemblage of Çatalhöyük, along with *Salicaceae* (species such as poplar and willow), and *Celtis* (hackberry) (Asouti and Hather 2001, fig 2-b.; Asouti 2005, 221, fig. 10.3). It is possible that these distributions are partly the result of the differential preservation of different kinds of timber. Nonetheless, the fact that these trees were not present in the direct environment of the site suggests that oak and juniper may have been important building materials.

At Canhasan III juniper and oak were also present, along with willow and poplar in the charred wood remains (Willcox 1979). It has been posited that most trees were obtained from the Selereki river valley, some 10 to 20 kilometres away (Willcox 1979, 9).

The availability, and use, of such high quality timber, is important for the reconstruction of Prehistoric buildings. The sort of timber used for the roof beams directly affects the maximum span that can be roofed, and thus determines the maximum size of internal spaces. The attainable width of a room depends mainly on two factors: first, the weight of the roof, and, second, the type and quality of the roof beams.

Two additional factors should be mentioned. First, when posts are used to prop the girder beams, the weight of the roof may be increased. In most cases such posts are visible to the archaeologist. In the sites under consideration freestanding posts were only used in the Early Chalcolithic buildings at Canhasan I. Second, an element that may be of importance in relation to maximal roofing spans are earthquakes, which can have disastrous effects in regions with flat clay roofs (Peters 1982, 231). Earthquakes do not pose a large problem in Central Anatolia, however, because it is not in a geological vault zone (Esin *et al.* 1991, 151).

The thickness of flat loam roofs varies considerably from one region to the next. Wulf report that in Fārs and Isfahān (both in Iran) the roof is about 10 inches (25 centimetres) thick, whereas it is 20-25 inches (50-64 centimetres) in Āzarbaijān (1966, 114). In the latter region much more straw was added, so that the weight of the roof was not necessarily double of that in Fārs and Isfahān. Within a specific region, however, roof thickness or composition does not seem to vary much. According to Dalokay (1969, 37), the loam roofs of Central Anatolia are mostly about 30 to 40 centimetres thick.

A considerable amount of variability exists ethnographically in the choice of roof beams and the thickness and composition of the roof. In consequence the maximum roof span varies accordingly. For instance, in the traditional houses of Najd, in Saudi Arabia, in which the roof rests on tamarisk beams, 3½ metres is the most that can generally be allowed for (Facey 1997). In Eastern Anatolia the maximum span that can be bridged with poplar beams seems to be in the range of 3 to 3½ metres, but average room widths are more in the range of 2.70 – 2.60 (Hall *et al.* 1973, 257; Koyunlu 1982, 262; Aurenche *et al.* 1997, 79). In the traditional houses of Konya, in which pine and cedar were used for roof beams, the normal width of rooms was about 3½ metres, but could range up to 3.75 metres (Berk 1951, 135). Apart from the data from Konya little has been published on the vernacular building traditions of Central Anatolia,⁵³ but it is assumed that maximum spans are in the same range as those that have been mentioned.

⁵³ The data on vernacular architecture in Eastern Anatolia were all gathered in the regions that were to be flooded after the construction of a series of dams. In Central Anatolia, some work has been done on

In all of these examples from the Near East, 3½ metres seems to be near the range of the maximum width, although in some exceptional cases rooms the maximum span may range up to 4 metres. As a rule of thumb for archaeological purposes we can posit that interior spaces that had a similar type of roof could not have been larger than about 4½ metres in width. For larger spans some extra form of support for the girder beams would have to be inserted. Particularly at Çatalhöyük, where rooms are frequently between 4 and 5 metres in width, there is some evidence for such measures (see chapter 6). Furthermore, in the Early Chalcolithic layers at Canhasan posts and buttresses become common (see chapter 8).

3.4.1 BUILDINGS IN MOTION

Loam buildings possess properties of transformation and regeneration that make them unique. Unlike the solid structures built in most of North-Western Europe, a loam building cannot be considered a finished product, fit for occupation until the end of its use-life, after its construction is at an end. For one thing, the upkeep of such a building requires constant care and effort. Both the walls and the roofs of loam buildings require inspection and maintenance on a regular basis. In most cases this takes the form of re-plastering of wall surfaces and of repairing weak spots on the roof, but occasionally the entire roof has to be dismantled and renovated. Apart from the upkeep of loam buildings there is another feature that makes them more dynamic than buildings constructed with more solid building materials. This is the ease with which such buildings can be modified and expanded. Rooms can be added without much ado, interior walls can be added or removed, doors and windows can be opened or closed without much effort. In vernacular building traditions this pliable quality of loam buildings is much appreciated.

In some cases loam buildings are consciously built in a way that allows for their flexible adaptation in later stages. For instance Horne (1994, 136) describes buildings in North-Western Iran in which arched niches were constructed in exterior walls that were subsequently immediately sealed with a loam wall. These arches were constructed in this manner to allow for possible future conversion into a door, should the wish to do so arise. Similarly, Van Der Linden (2003, 39) describes how walls in Mali were built more massively than necessary, to allow for a possible future addition of a second storey.

Due to the ease with which loam buildings can be altered and the fact that relatively little effort or expenses are involved, change seems to be an endemic feature in many of the loam built villages of the Near East. To describe this constant process of modification in loam buildings Peters coined the term '*vegetatives Bauen*':

"Hauptmerkmal des 'vegetativen' Bauens ist gerade, die permanente Veränderung der Siedlung, die von einer Reihe physischer und anthropogener Faktoren beeinflusst werden kann. Die Veränderung der einzelnen Häuser durch Wachsen und Schwinden, die Verzahnung mit den vorhandenen Nachbargebäuden und die Anpassung an vorhandene Wegführungen ergeben eine Vielzahl von Grundrißmöglichkeiten, die nicht vorausplanbar sind, sondern von den wechselnde Bedürfnisse der Bewohner, dem Sozialgefüge einer Gemeinschaft und Besitzverhältnissen verursacht werden." (Peters 1982, 226).

This statement by Peters relates to the vernacular buildings of the Keban Area in Eastern Turkey, but the label '*vegetativen Bauens*' is equally applicable to describe building traditions with loam in other regions (Hall *et al.* 1973; Biewers 1997; Van Der Linden 2003, 79-81). For instance, in a study of Old Babylonian Nippur Stone (1981) has combined textual and archaeological evidence to show the manner in which the rooms of a house were transferred from one person to the next, and how doors were opened and blocked in order to accommodate these changes, in a building of which the ground plan remained identical.

vernacular architecture by Turkish architects, but these works were not available to me (for instance Kafescioğlu 1949).

Adopting the perspective that loam buildings are constantly in motion has considerable implications for archaeology. It means that the loam buildings of the past did not necessarily have one true or intended organisation of space and articulation of elements. Rather these buildings may have gone through a dynamic development that included both major and minor alterations of the building. In many cases the residues of these phases may no longer be extant, but where they are a careful excavation method is instrumental for the analysis of the biographies of buildings.

One excavation in which building biographies are documented with great care is that of Çatalhöyük. The current excavators at the site are revealing the extremely dynamic nature of its loam buildings. The completely excavated buildings 1 (North Area) and 3 (BACH Area) have been shown to undergo a constant and intricate process of modification (Hodder 1998b; 1999; Cessford in prep-c; Stevanovic and Tringham 2001). Building 1, for example, has five major structural phases, as well as a number of more modest sub phases, apart from the almost constant process of plastering (Cessford in prep-c).

Comparing different sites, we can see that the elements of buildings that were allowed to change in a dynamic manner were often very specific. For instance, the interesting paradox of the loam buildings at Çatalhöyük is that, apart from a few exceptions, almost all of the alterations and modifications that occur at the site are confined within a building. As a rule, we do not find that rooms of neighbouring units were attached, or that new extensions were added to a building. The outside walls of a building were the limits within which change was contained at this site. In addition, there was a remarkable continuity of buildings through time, and individual buildings can be traced over hundreds of years at the site (§6.6.1).

By contrast, at Aşıklı Höyük the internal dynamism that is typical of the buildings at Çatalhöyük cannot be documented. The internal arrangement of features at Aşıklı Höyük tends to be exactly replicated from one building phase to the next. For instance, hearths are consistently located in the same corner of the building (see chapter 4).

In the following sections the main construction and maintenance stages of loam buildings in the Central Anatolian Neolithic will be explored in order to elucidate the manner in which their biographies are structured.

3.4.2 CLOSURE AND FOUNDATIONS

One of the defining characteristics of the Neolithic settlements of Central Anatolia is the continuous construction of buildings along the lines of their predecessors. For instance, in the deep sounding 4H/G at Aşıklı Höyük, buildings can be traced through a large number of building phases spanning hundreds of years (§4.6.1). A similar situation can be demonstrated for Çatalhöyük (§6.6.1). At least in part, the continuity of buildings through time at Aşıklı Höyük and Çatalhöyük has to be related to the foundation practices at these sites. Rather than using stone foundations, or building massive loam walls in trenches, the general practice at the clustered neighbourhood settlements of the Central Anatolian Neolithic was to construct walls on top of older walls, using pre-existing buildings as a foundation.

The practices surrounding the closure of one building and the foundation of the next have best been described at Çatalhöyük. At Çatalhöyük these practices seem to have been structured as follows. First, the walls of extant older building were cut horizontally to the desired height (Matthews and Farid 1996, 297; Cessford in prep-c). Next, the interior of the building was filled with a compact deposit, to create a horizontal platform. Upon that platform the new structure was subsequently erected, its wall usually exactly replicating the earlier walls (Düring 2001), and the floors constructed on top of the fill. These fills could consist of a variety of materials: including 'clean' clay (Mellaart 1963, 47; Farid in prep), building debris, heterogeneous aggregates, diagonal wedges of pisé-like material, and ashy refuse mixed with wind and water-laid deposits (Mellaart 1963, 48; Matthews and Farid 1996, 293-4; Cessford in prep-c; Farid in prep).

At Canhasan I two additional foundation practices are documented. First, buildings were 'inserted' into previous buildings, which means that they were constructed within the walls of an

earlier building. Second, in some cases, buildings were completely removed by terracing activities and were subsequently replaced by new buildings.⁵⁴ Both of these practices do not seem to have been common at sites other than Canhasan I, and will be further explored in chapter 8 (§8.1.3).

In many instances the abandonment of buildings seems to have involved a ritual of closure that could involve elements such as the destruction of plaster mouldings, a final plaster episode, cutting figures into the plaster, and placing skulls on the floors of buildings. Such practices have led Özdoğan and Özdoğan to posit a ‘cult of buildings’ (1998) at Çatalhöyük and other Neolithic sites.

There are two instances amongst the Central Anatolian Neolithic settlements where a different type of foundation was used. The first is Erbaba, where all buildings seem to have been constructed on a stone foundation. It is of interest that Bordaz mentions a succession of buildings on the same alignment, suggesting that here, as in Aşıklı Höyük and Çatalhöyük buildings were constructed on top of one another.

At Aşıklı Höyük there are also examples of stone foundations. However, these relate to a special category of monumental buildings. The example that is best documented is the complex surrounding courts ‘HV’ and ‘T’. This building boasts thick casemate walls of stone, a terrazzo red painted floor, and the size of the complex is extraordinary in comparison to the average building at the site (Esin 1993; 1998a). This building, and another less well-preserved structure to the east, will be discussed in chapter 4 (§4.9.1).

3.4.3 WALL CONSTRUCTION

Not much is known about the techniques of wall construction at the clustered neighbourhood settlements. It has been suggested by some authors that the loam slabs that were the main building material were transported to the building site on wooden boards (Bıçakçı and Özbaşaran 1991, 136; Matthews and Farid 1996, 289). On site the loam slabs were incorporated into the walls. The mortar in between the slabs was generally almost of the same height as the slabs themselves (Bıçakçı and Özbaşaran 1991, 136; Matthews and Farid 1996, 291). At Canhasan I, mortar layers were much thinner than the loam slabs / loam bricks (French 1998, 70-91). It is probable that these thin mortar layers are related to the enhanced strength of the bricks at Canhasan I.

In most cases the mortar, or a similar material, used between the bricks, was also smeared over the wall surface, to enhance the strength of the wall and to serve as a preparatory layer for subsequent plaster layers (Matthews *et al.* 1996, 306).

A characteristic of most buildings of the Central Anatolian Neolithic is that they lack party walls (but see §6.3.2). Each building is surrounded by its own set of walls. These walls are constructed in alternating fashion (headers on stretchers). At Aşıklı Höyük, Çatalhöyük and Canhasan III, walls in general seem to have had a single row only, and were approximately 22 centimetres wide (French *et al.* 1972, fig. 4; Esin *et al.* 1991, 150; Matthews and Farid 1996, 289). More solid walls can be found at Canhasan I, where the bricks are of better quality, and the width of the single course walls is 30 centimetres in the early layers and 40 centimetres in layer 2B. At Erbaba wall widths seem to have been about 50 centimetres (Bordaz 1969, 60).

An additional element introduced in the walls of Early Chalcolithic Canhasan I are buttresses. Buttresses are also present in the upper levels at Çatalhöyük. At Canhasan I, from layers 3, 2B and 2A onwards, they are present in every building found. They have been interpreted as method for enhancing the load the walls could bear, with the purpose of supporting a second storey (French 1998, 27; §8.2.2).

The construction of walls is an important clue to the reconstruction of buildings. The quality of the building material used, the method of bonding, the type of foundation, presence or absence of buttresses, and the number of rows in a wall, are all factors that determine the load a wall can

⁵⁴ At Çatalhöyük there is one possible instance of a similar case in which an older space was removed and a later room was inserted into that space: space 160 of level VIB (Farid in prep).

bear. This maximum load is important for the reconstruction of the roof level, or a potential second storey (Van Der Linden 2003, 39). An interesting study of the buildings at Aşıklı Höyük demonstrates that the rather thin walls at the site (22 centimetres wide in average) were capable of bearing a flat roof of about 30 centimetres thick, but were incapable of supporting an upper storey (Berker *et al.* 1991, 153). Such a hypothesis fits well with reconstructions of the buildings that were proposed on other grounds. The calculations for Aşıklı Höyük would suggest that the buildings at Çatalhöyük and Canhasan III were also incapable of supporting an upper storey.

3.4.4. WALL AND FLOOR PLASTER

Data from both ethnography and archaeology point to regular plaster activities in loam buildings. With regard to these plaster practices an important distinction can be made between plaster applied to the outer surface of buildings, and plaster applied to the interior of buildings. Plastering the outer surface is essential for the upkeep of buildings and the effective protection of the walls against the activities of animals and erosion caused by precipitation. In particular, the lower reaches of free-standing walls need to be protected, since erosion is most active there. In an example from the village of Alacahöyük, in the northern part of Central Anatolia, the outer walls were plastered once every two years (Brunner and Geering 1971, 204). The plaster used commonly includes vegetal additions that adds to the cohesiveness of the plaster, and make it more resistant to erosion (Peters 1982, 231; Horne 1994, 137-41; Van Der Linden 2003, 54-7).

Plaster within buildings is applied primarily for reasons other than protection against the weather. The material used is often finer, and more effort is put into the preparation of the plaster (Kramer 1979, 148; Horne 1994, 137-41). It seems that internal plaster is related to (the perception of) comfort rather than protection from erosion. It is these internal plaster layers that we encounter most in the Central Anatolian Neolithic settlements, due to the circumstance that, in most cases, buildings were not free-standing.

With regard to the plaster on internal surfaces and floors, there is a considerable amount of variability in the loam buildings of the Central Anatolian Neolithic, both in the quality of the plaster, and in the frequency in which it was applied. At Canhasan I only a selection of the walls were plastered, and the plaster does not seem to have been renewed very often (French 1998, pls. 6 and 7). By contrast, at the sites of Aşıklı Höyük and Çatalhöyük, plaster was present on all wall surfaces, and plastering seems to have occurred on a regular basis (Mellaart 1964a, 60; Esin *et al.* 1991). At Çatalhöyük up to 160 layers (80 couplets) of wall-plaster were found in a micro-morphological section (Matthews *et al.* 1996, 306).

Ethnographical data suggest that such differences with regard to plastering frequency and plaster quality may be related to the function of a room (Christensen 1967, 95; Horne 1994, 138; Aurenche *et al.* 1997, figs. 4.8 and 4.23). The plaster of living rooms tends to be applied more regularly and is of better quality than that in storage rooms and stables. Such patterns are of considerable value to the archaeologist, given that the number and quality of plaster layers often vary considerably from one room to the next in a single building. Matthews mentions that as many of 450 thin white plaster layers were applied to the wall of the living room of building 5 (North Area, new excavations), but only 3-4 orangy brown silty clay plasters were applied to the adjacent smaller rooms that were connected to them (Matthews 2005, 365). Such differences in plaster practices from one room to the next can provide an important clue for the reconstruction of the nature of spaces. In this regard, the absence of plaster in most layer 2B and 2A buildings at Canhasan I could be taken to confirm the reconstruction by French featuring domestic activities on the second storey (French 1998, 68).

Clear differences in plaster quality and frequency between spaces may even be visible at the surface of the mound, and appear after scraping, at the stage before excavation (personal observation, Çatalhöyük excavation 2002). This is of considerable interest, because it may allow us to reconstruct room functions even when rooms have not been excavated.

There are two main reasons why living rooms are plastered more often and with better plaster. First, it can be related to the desire to live in a neat and well-kept room. In the case of a storage room, cracks in the plaster are apparently less irritating than in the living room. Second, it is precisely in the living room that features such as hearths and ovens can be found. The repeated use of fire results in the attachment of large quantities of soot to the wall-plaster. This effect is especially pronounced when proper chimneys are not present, as is the case in the houses of the Central Anatolian Neolithic. At Çatalhöyük, for instance, soot layers are very common (Matthews 2005, 367). The frequency of plaster activities in living rooms probably relates to this soot accretion.

As indicated, the interval in between plaster events varies according to the function of the room in question. In the case of the living rooms at Çatalhöyük many suggestions have been proposed. Mellaart suggested that plaster layers were applied on a yearly basis (1964, 64), Boivin (2000, 385) on the other hand, suggested that plaster may have been applied in connection of rituals connected to seasonal festivals and rituals relating to members of the household. Matthews has interpreted the plaster layers in a more mundane manner, arguing that certain thick plaster layers represent a yearly cycle, with 3 to 9 thin layers of plaster in between, often covered with soot, that are related to shorter intervals (Matthews 2005, 368-9).

3.4.5 ROOF CONSTRUCTION AND MAINTENANCE

There are good indications that the roofs of the Central Anatolian Neolithic settlements, like those of traditional buildings in the region today, were flat loam roofs. Collapsed roofs have been found at Çatalhöyük (Stevanovic and Tringham 1998) and at Canhasan I (French 1998, 27, 30, and fig. 22), and have been reconstructed for Aşıklı Höyük (Bıçakçı and Özbaşaran 1991, 144).

The construction sequence of the roofs was probably as follows: first, girder beams were placed across the width of the building. In ethnographical examples 20 to 50 centimetres between beams seems to be a common distance (Berk 1951, 141, pl. 71; Brunner and Geering 1971, 203; Friedl and Löffler 1994, fig. 7), and an interval of one metre is the maximum that has been found (Berk 1951, 141). At this stage, posts can be added to support the roof beams if the distance that is bridged is too long, considering the strength of the beam in question. Next, one or several layers of either joists, branches, boards, planks, or matting, are laid over the girder beams. Finally, loam is put on top of this second layer, and special care is taken to ensure the smoothness and compactness of the upper 10 centimetres. The loam below can consist of loam bricks or loose soil (Wulf 1966, 114; Christensen 1967, 96-8; Peters 1982, 223; Aurenche *et al.* 1997, 81-2; French 1998, 30-1).

In the village of Alacahöyük, in the north-central part of the Anatolian Plateau, the loam deposit of the roof is built up in the following manner. Over the branches that cover the beams the first layer of loam is laid, which contains a large amount of chaff. On top of that a thin layer of dry earth is placed. Finally a layer of soil containing large amounts of salt (Turkish: *çorak*) is added (Brunner and Geering 1971, 203).

We do not know how thick the roofs of the Central Anatolian Neolithic buildings were. In Iran Wulf reports a range of 25-65 centimetres (Wulf 1966, 114; Friedl and Loeffler 1994, 24). By contrast, the loam packing on the roofs in the Keban area rarely seem to have been more than 13 centimetres thick, although through annual repairs the roof deposit accumulated over time. For the calculations at Aşıklı Höyük a roof deposit of 30 centimetres is posited (Berker *et al.* 1991), but it is not clear whether this is a common feature in the surroundings of the site. In the city of Konya traditional houses had roofs that were in between 30 and 50 centimetres thick (Berk 1951, 146). In a general study dealing with Anatolian flat loam roofs Dalokay (1969, 37) states that most roofs were between 30 and 40 centimetres thick. Such ethnographic data on roof construction practices in Central Anatolia could be an important clue to the reconstruction of buildings in the past, since both the climate and the available resources were, to a certain extent, comparable.

Another issue of some importance with regard to the roofs of the Central Anatolian Neolithic clustered neighbourhood settlements, is the manner in which they were drained. Precipitation in the

form of rain or snow presents an important problem for loam roofs. First, water can easily cause disintegration through erosion. Second, roofs of loam can become saturated with water, resulting in a significant increase in their weight. For these reasons it is important to drain water and remove snow from the roof as quickly as possible. In the case of rain this is done by drainage. The 'flat roofs' encountered in Near Eastern vernacular buildings actually have a slight angle of about 3° (Peters 1982, 223). In addition slight channels are made leading to wooden spouts. These spouts drain the water at some distance from the roof and the walls (Wulf 1966, 114; Facey 1997, 129). Such spouts can be found all over the Near East, as well as in Africa (Berk 1951, 197; Dalokay 1969, 94-5; Peters 1972, pl. 127-2; 1982, pl. 114-1; Aurenche *et al.* 1997, fig 4.12; Van Der Linden 2003, 50). To the best of my knowledge, spouts of this kind have not been found in Near Eastern excavations, which could be due to either matters of preservation, and / or a failure to recognise these objects for what they are. In contrast to rain, snow is solid by nature, and therefore it is necessary in the winter to remove the snow from the roofs by manual labour (Friedl and Loeffler 1994, 33).

Another specific type of object associated with flat roofs is a heavy rolling stone (Turkish: *logtaşı*), a cylindrical stone measuring about 50 centimetres in length, with a diameter of about 30 centimetres. This stone remains on the roofs and is used to squeeze moisture out of the roofs and repair bad cracks and patches. In rainy seasons in particular the roofs need to be maintained in this way after each shower of rain (Wulf 1966, 114; Brunner and Geering 1971, 203; Hall *et al.* 1973, 259; Friedl and Loeffler 1994, 33; Aurenche *et al.* 1997, fig. 4.2).⁵⁵

The absence of spouts and rolling stones in the context of the Central Anatolian Neolithic settlements is puzzling. The problem of the disposal of water and snow is even more acute in the clustered neighbourhood settlements of the Central Anatolian Neolithic than in other settlements. In the case of a free-standing building it will suffice to drain water from the roof with spouts that throw the water clear of the building, whereas in the clustered neighbourhood settlements under consideration this would throw the water on the neighbouring building.

Despite the constant upkeep of loam roofs, they are reported to last no more than 10 years (Aurenche *et al.* 1997, 81). After that period the roof must be removed and renovated. Weak beams may be replaced, after which the roofs are reconstructed.⁵⁶

There is also a seasonal component to the use and maintenance of loam roofs. In summer times roofs are generally used for domestic purposes, sleeping and transportation (Peters 1982, 223; Friedl and Loeffler 1994, 33). Roofs may contain hearths and even toilets placed on the edge. During the wet seasons roofs are not used very much. Apart from the climatological reasons for this shift: it is no longer pleasant to be outside, it is also detrimental to the roof (Peters 1982, 233). For that reason activities on the roof are mostly kept to a minimum during that period.

This issue is of considerable interest for the Central Anatolian Neolithic, in which most buildings could only be reached across roofs. Unfortunately none of the researchers of vernacular loam architecture in Eastern Anatolia, where roofs were often used simultaneously as streets, seem to have looked into the question in what manner transport and roof protection were combined in the wet season. This reflects the fact that fieldwork was usually done during the dry season. On the basis of micromorphological work on roof remains Matthews (2005, 373) has concluded that at least some parts of the roofs at Çatalhöyük were not disturbed by people moving on the roof during the wet part of the year. This suggests that at Çatalhöyük, and probably also at the other Central Anatolian Neolithic settlements, practices of roof usage may have been seasonally determined.

⁵⁵ Koyunlu reports on another method of protecting the roof, which consists of burnishing the roof with a wooden trowel. It seems that this method is not used elsewhere, and appears not to be suitable for buildings where the roof is used for domestic activities (Koyunlu 1982, 263).

⁵⁶ Nurcan Yalman (personal comment July 2004) reports a 3-year interval for the renovation of the roofs of a Konya Plain village, but in most cases this did not include complete dismantlement of the roof.

The buildings of the Central Anatolian Neolithic were generally accessed from the roof. The roof entrances also acted as chimneys, given that hearths and ovens are often located directly below them. It is commonly assumed that some kind of structure sheltered the ladder entrance from rain, snow and storms. Nothing that could help to reconstruct such a structure has been found, however. One interesting parallel from eastern Anatolia has been published (Aurenche *et al.* 1997, fig 4.4), in which a triangular wooden shelter with a door over a ladder entrance is documented.

3.5.1 SETTLEMENTS IN MOTION

It is one of the ironies of Near Eastern archaeology that the stratigraphy of many of its key sites is highly problematical. This is less surprising than it may seem. The prominent position of these sites is linked to intensive excavation programmes in which large exposures were excavated. In order to understand a cultural horizon adequately, large excavation areas providing a perspective at the level of the settlement are essential. However, the problems in stratigraphy that plague such sites as Çayönü and Catalhöyük, are a function of the large size of these large exposures. The ultimate cause for problems in stratigraphy is related not so much to inadequate methods of excavation, but rather to a fundamental flaw in the concept of 'stratigraphy'.

The notion of stratigraphy as it is conceptualised in Near Eastern archaeology is that of layers in a mound resembling the layers of a cake. We are all familiar with neat drawings of site stratigraphies such as those produced for Mersin, and Alışar Höyük, showing a section through the mound displaying the major building phases, typical artefacts of the periods excavated (usually the attractive 'goodies'), and dates. Such drawings are aesthetically pleasing, and sit comfortably with notions of technological progress ultimately leading to our present summit of civilization. However, the layered cake concept is a vast oversimplification of a complex reality (*cf.* Braidwood and Howe 1960, 39), a fact that led Young and Levine to conclude that "Near Eastern archaeologists are a long way from understanding stratigraphy in anything but frighteningly simplistic terms" (1974, 20). Although the layered-cake type of drawing described has, given a few exceptions, become outdated, the underlying notions are still at the crux of most excavations in Near Eastern archaeology. Amongst these preconceptions are ideas that tell occupations can be subdivided into discrete periods of occupation, and that each period can be characterised by discrete types of material culture. In fact, granting some exceptions where sites were suddenly abandoned and destroyed (for instance Akkermans *et al.* 1993), both assumptions are highly problematic.

The idea of a more or less unproblematic stratigraphy has remained influential in Near Eastern archaeology due to the predominant research traditions of Near Eastern archaeology. First, most excavations have focused on temples and palaces (Matthews 2003, 155-7). Unlike vernacular domestic architecture, these large complexes tend to be designed and built according to a circumscribed plan. Ad-hoc changes are rare in these complexes. Building phases can usually be followed throughout the entire structure and are executed in a systematic manner. Second, many excavations in the Near East have been restricted to small soundings (Aurenche 1981, 273), in which, due to the small size of these exposures, the sequence is fairly straightforward. In short, both types of excavation provide us with a relatively unproblematic but atypical stratigraphy.

By contrast, in those excavations in which domestic architecture was investigated, and in which large areas were exposed, stratigraphy proved to be a much more difficult concept. Interestingly, many sites that came to be excavated over large exposures started out with a small sounding with a relatively unproblematic sequence, but as the excavation areas became larger that clear sequence became blurred and overly simplistic, suggesting that all the sequences of sites with small exposures should be treated with due caution.

As an example we can mention the excavations at Çayönü, which took place from 1964 until 1992. This project started out as a small-scale excavation project, but over time more than 8000 m² of the settlement were exposed (A. Özdoğan 1999, 37). In the course of the project the stratigraphical sequence evolved considerably. Initially Braidwood and Çambel (1982, 6)

distinguished six architectural phases: (a) basal pits, (b) curved wall, (c) grill plan, (d) broad pavement plan, (e) cell plan, and (f) large room plan. At a later stage one of the building phases, that of the 'broad pavement plan', that included the cult buildings found at Çayönü such as the 'terrazzo building', the 'flagstone building', and the 'skull building', was no longer considered to represent a stage in the development of the site, but these structures were thought to co-exist with other parts of the sequence (A. Özdoğan 1999). In 1989 a new sequence was proposed, in which the basal pit phase was no longer present, but which included: (a) round plan, (b) grill plan, (c) intermediate phase, (d) cell plan, and (e) large room plan (Özdoğan and Özdoğan 1989). In later publications more sub-phases are included, but these do not alter the basic sequence (A. Özdoğan 1995; 1999). This example serves no purpose other than to show that considerable alterations to the initial sequence were necessary in order to accommodate the results from later seasons.

A similar scenario can be drawn for Çatalhöyük. Initially Mellaart distinguished ten building levels, top to bottom, in Roman notation (X-I). Later on levels XI and XII were added, and level VI was separated into VIA and VIB (Mellaart 1964, 40). Part of the buildings that had earlier been assigned to level VII were re-assigned to VIB (*ibid.*). In the subsequent report this was modified to the position that some buildings were occupied throughout levels VIB and VIA, and others were not (Mellaart 1966, 166). Another group of newly excavated buildings was subsequently labelled level VI (Mellaart 1966, 172). Further, a group of buildings from level VIB were reassigned to level VII (Mellaart 1966, 176).

There is a remarkable convergence in the development of the stratigraphical difficulties at both sites. The extension of the excavation areas made it increasingly difficult to accommodate the new result into the existing stratigraphies, which had to be altered as a consequence. In the process what had started out as clear stratigraphical sequences gradually became blurred and difficult to work with.

These difficulties were not the result of failing qualities of the archaeologists working on these sites. Some of the finest field archaeologists of the world have worked at Çayönü and Çatalhöyük. Rather, it seems to me that these problems were caused by a flaw in the conceptual framework of archaeology; the idea that a clear stratigraphy can be drawn up for complete villages.

The problematic nature of the concept of stratigraphy when applied to villages, follows from the '*vegetatives Bauen*' concept introduced above. In the same way that the individual loam building is constantly modified, the village as a whole is also in a state of flux. Ethnographic studies of villages made up of loam buildings in the modern Near East suggest that such villages develop and change in a complex and dynamic way (Hall *et al.* 1973; Peters 1982, 226; Biewers 1997; Van Der Linden 2003, 82). Buildings are often reconstructed individually and independently from one another. Drawing a composite plan of such a village is possible, but has an arbitrary character. Each year there are some changes in the village, certain buildings may perhaps be abandoned, or transformed into a shed, others may be expanded, and new buildings may be added in other places. Such a situation could better be captured in an ongoing movie, rather than in a series of snapshots that freeze and prioritise particular moments in time.

Adopting the position that the villages we excavate do not develop in stages but are involved in a constant process of change has important implications for archaeology. First, the best result that we can ever hope to achieve is a series of arbitrarily timed snap shots of the developments of a settlement that are not necessarily the most representative of the development of the settlement at large. Second, the nature of the archaeological evidence, and the haphazard manner in which changes take place in ethnographical examples, means that in most cases it will be impossible to determine precisely which buildings are contemporary with which, unless a direct relation can be established between two structures.

In my mind, the solution to these problems does not reside in more careful excavation techniques and more detailed documentation, although both will undoubtedly be helpful for getting a better grip on the evidence. Rather, I would argue for an approach in which the structural properties of settlements are emphasised, and in which the plans produced by archaeologists are

regarded as plausible *approximations*. Settlements are constructed according to a set of culturally determined preferences, determining what kind of spatial configurations are chosen in the process of building. It is possible to see archaeological settlement plans as an approximation of what that settlement might have looked like at a particular moment in time, because the buildings in the settlement waxed and waned according to a rigid set of principles. In a sense we can draw an analogy with the syntactic rules of language, which determine the possible forms and positions of words in a sentence. By the same token, correct sentences can be distinguished from defective ones. In a similar vein we, as archaeologists, can become acquainted with the cultural preferences of builders in the Central Anatolian Neolithic and judge whether a specific plan adheres to those principles.

In the case of the Central Anatolian Neolithic there is an added element to this, in that buildings often replicated their predecessors. Individual buildings can be traced over many phases of redevelopment lasting for hundreds of years (Düring 2005a). In this situation, it is perhaps not so important for understanding the settlement as a whole whether the different buildings on a plan were in use contemporaneously, or whether some of them may in fact have been earlier or later. If they were replaced by their predecessor or successor building the resultant overall plan would, in most cases, not appear to be much different.

In this respect it is of interest to compare two pictures that were taken in 1900 and 1981 (Derthier 1982, 55, fig. 15, 86, fig. 2) of the Taos Pueblo, a village in the South-Western USA that is many ways similar to the clustered neighbourhood settlements of the Central Anatolian Neolithic. They, like the latter, show hardly any change in this loam built settlement over a period of 80 years. While it could probably be argued that Taos Pueblo is an artificially curated settlement, I would argue that similar processes of curation and building continuity operate in the Central Anatolian Neolithic.

It is probable that apparent similarity of the Taos Pueblo in 1900 and 1981 masks a multitude of changes in the buildings of this village, and relates only to its exterior dimension. Nonetheless, such a parallel may serve as an illustration that archaeological settlement plans can, after all, have some validity. However, we can never assume that archaeological settlement plans are accurate, and we need to be aware of the nature of loam built settlements that have the capacity to change incessantly. In archaeological research the best we can do is to try to get at the structural principles that give shape to specific settlement configurations and try to relate these to the mentalities and ways of life in which these were rooted.

CHAPTER 4: THE AŞIKLI HÖYÜK SETTLEMENT

Aşıklı Höyük is a site of great importance for our understanding of the Central Anatolian Neolithic for a number of reasons. First, it is the most systematically excavated site of Aceramic Neolithic in this region. There are a number of other sites where this period has been investigated, such as Pınarbaşı A, Kaletepe, Canhasan III, Suberde, Musular and basal Çatalhöyük. At most of these sites the scale of the excavations has been very restricted, however, and as a consequence these sites are mainly of importance for artefact studies. An exception can be made for the sites of Musular and Canhasan III, where somewhat larger exposures have been opened, but at Musular the remains were poorly preserved, and at Canhasan III investigations were restricted to a surface scrape. Second, large horizontal exposures totalling some 4200 m² were obtained at Aşıklı Höyük, providing an insight into the Aceramic Neolithic at the settlement level. Third, the settlement of Aşıklı Höyük is the first example of the clustered neighbourhood settlements of the Central Anatolian Neolithic. As such, the site is of considerable importance to put the later settlements of that tradition, Canhasan III & I, Çatalhöyük, and Erbaba, in context. Fourth, there are a number of unique features at Aşıklı Höyük, including its pebble paved streets and two large monumental complexes that have the potential to reshape the conventional picture of Early Neolithic societies and, as such, deserve further consideration.

Despite the culture-historical importance of Aşıklı Höyük, the site is little known to those outside Anatolian archaeology, unlike Çatalhöyük. There are several reasons for this situation, including: first, the relatively recent date of the excavations at the site, which began in 1989; second, the fact that the site has mainly been presented in Turkish conferences; and, third, the fact that relatively little has been published on the site. This absence of detailed reports is also a major drawback for the analysis in this chapter.

4.1.1 GEOGRAPHICAL SETTING

Aşıklı Höyük is located on the southwestern fringe of the volcanic plateau of Cappadocia, in a landscape formed by the erosion of river valleys into tuff deposits. The Melendiz Valley, in which Aşıklı Höyük is located, constitutes a favourable, fertile, and diverse habitat. Not far from the site are a number of obsidian outcrops. The obsidian obtained at these sites was both used locally, and transported further a field. Obsidian deriving from these sources has been found all the way up to the Southern Levant (Balkan-Atlı *et al.* 1999b).

The site measures about 230 by 240 metres, and is located on the eastern bank of the Melendiz River. The river has eroded the northern, eastern, and southern edges of the mound, creating large vertical sections. The site measures 4 ha today, but was probably larger in the Neolithic. The summit of the mound rises 15.35 metres above the surrounding valley, and virgin soil was encountered at 0.85 metres below that level.

4.1.2 RESEARCH HISTORY

The site of Aşıklı Höyük has been investigated since the 1960s. It was first recognised by E. Gordon in 1963, and was subsequently surveyed by Todd in 1964. Aşıklı Höyük was well suited for such non-destructive investigations for a number of reasons. At that time the Aceramic Neolithic of Central Anatolia had hardly been investigated. An intensive survey of Aşıklı Höyük was attractive both because of its impressive 4 ha size, and due to the large vertical erosion sections along the bank of the river. These sections were ideal for obtaining an idea of the site stratigraphy, and of the development of lithic assemblages in the course of the occupation of the site. The lithic assemblage collected from the surface and the sections were published by Todd (1966; 1980, 59-61). In addition, he took a number of radiocarbon samples to date the site (Todd 1968), and

collected faunal remains, which were published by Payne (1985). As a result of these publications Aşıklı Höyük became one of the best-studied non-excavated sites in Anatolian Prehistory. The site even became a topic of discussion in secondary literature (see Jacobs 1969).

In 1988 a government plan was launched that would result in a rise of the waters of the Mamasın Lake, located close to Aşıklı Höyük. As a result of this plan the site would be partially inundated. In response a salvage excavation project was set up by Professor Esin from the University of Istanbul. Seven excavation seasons were carried out between 1989 and 1995, and two subsequent campaigns were undertaken in 2002 and 2003. In the course of these excavations an area of approximately 4200 m² was exposed on the horizontal plane,⁵⁷ and in addition two deep soundings were made, the most important of which is the sounding in squares 4H/G.

4.1.3 STRATIGRAPHY AND CHRONOLOGY

Three main layers have been distinguished at Aşıklı Höyük, labelled layer 1-3 from top to bottom. These layers are subdivided into phases that are designated with letters (see table 4.1). Layer 1 consists of a series of disturbed features and deposits located in and just below the topsoil. Layer 2 consists of the well-preserved buildings and deposits found below layer 1 and exposed over large areas. It was subdivided into 10 sub phases (2A-2J from top to bottom). Layer 2 could be traced to a depth of about 7 metres below the summit of the mound in trench 4H/G. The buildings in this trench were continuously being rebuilt on the same alignment and maintained the same dimensions. The bottom of layer 2 is defined by a flood horizon of about 70 centimetres. Below this flood horizon are building remains that have been assigned to layer 3, which are very similar to those of layer 2. Layer 3 has been divided into phases 3A-3C.

In the two most recent campaigns at the site a number of oval buildings were found below the phase 3C buildings. These buildings are partly contemporary with the typical rectangular building of Aşıklı Höyük, and there is no hiatus between the two building forms. It is not clear at present whether these buildings will be assigned to 'layer 4' or to 'sub-phase 3D' (based on communications with excavators in August 2003).⁵⁸

Layers	Phases	estimated calibrated dates BC
1	-	7500-7400
2	2A-B-C-D-E-F-G-H-I-J (10)	8000-7500
3	3A-B-C (3)	8200-8000

Table 4.1: The stratigraphic levels of Aşıklı Höyük and their estimated absolute dates.

The chronological duration of Aşıklı Höyük has been established with 47 radiocarbon samples that date the site to a range of 8200 to 7400 calibrated BC (Esin 1998a; Thissen 2002a). Thirty-six of the samples were taken from the large horizontal exposure on the summit of the mound that has been assigned to phases 2A-2C (Esin and Harmankaya 1999, 123). Five samples date the earlier phases G-D of layer 2. No samples are available at present to date layer 3. Six

⁵⁷ Apart from Çayönü, in South-Eastern Anatolia, there is no other site in the Aceramic Neolithic of the Near East that has been excavated on this kind of scale.

⁵⁸ Apart from the flood deposits separating layers 2 and 3, a possible second flood horizon was recognised, measuring up to 1.5 metres in height. This overlay earlier layers of occupation at and below the level of the Melendiz River at about 16 metres below the summit of the mound (Esin and Harmankaya 1999, 118). Deposits predating this 'lower alluvial deposit' were excavated in a trench along the river, the location of which was not indicated in the report by Esin and Harmankaya (1999) but which is probably located on the southern edge of the site in trench 14AB (*ibid.*, fig. 2). The buildings found in this trench are similar to those encountered in layers 3 and 2 (Esin 1996, 35; Esin and Harmankaya 1999, fig. 5). So far, these layers have not been tied in with the overall stratigraphy of the site and they do not have a layer or phase designation.

additional samples were taken from the bottom of the western section of the site by Todd (1968) and Kuniholm (1999), but are difficult to relate to the stratigraphy of the site. The samples taken by Todd were located between 0.75 and 2 metres above the 1964 river level. The sample taken by Kuniholm was located at the base of the western edge of the site (1999, 43).

The stratigraphy of Aşıklı Höyük has only been published tentatively. Whereas the layers 1 to 3 are defined in a relatively straightforward manner, the sub-phases are much less well defined. In the deep sounding in trench 4G/H the phases are clear strata, and all buildings dated to a phase are more or less contemporary. However, in the large horizontal exposures on the summit of the mound the phases were used in a different manner:

“the reconstructional stages for each building is (*sic*) recorded independently from top to bottom as 2a, 2b, 2c. The phases for each building may or not be contemporary with phases of buildings in other parts of the settlement.” (Bıçakçı and Özbaşaran 1991, 137).

From this passage it follows that the plans published of the mound summit (Esin 1998a, fig. 3; Esin and Harmankaya 1999, fig. 3) represent the buildings that were found after removal of the disturbed deposits in or just below the topsoil (layer 1), rather than an attempt to present a single contemporary phase of occupation. This circumstance has considerable implications for how these plans should be interpreted. Given that the published plans do not represent a stratigraphically meaningful proposition, we cannot apply models concerning the organization of settlements space without a careful consideration of the evidence.

The composite nature of the overall plan published for Aşıklı Höyük (see fig. 4.1) has also been stressed in the most comprehensive preliminary report published so far (Esin *et al.* 1991), in which Esin argues that buildings FF, FS and BK in trenches 2/3-J/K and all of the buildings south of street GA are older than those found in trenches 4/8-J/O. Unfortunately the stratigraphy is not discussed in later publications, in which all building remains, with the exception of those in deep sounding 4G/H, are assigned to phases 2A-C (Esin and Harmankaya 1999, 123-4).

The problems with the stratigraphy of Aşıklı Höyük should not be exaggerated, however. Generally speaking the architecture that was exposed on the relatively flat summit of the mound constitutes a remarkably consistent plan, with ongoing streets and alleys, and clear patterns of orientation in the building blocks. No doubt some of the buildings are not ‘in phase’. Due to the character of the Central Anatolian Neolithic settlements, in which buildings are constantly reconstructed along the lines of their predecessors, this is not necessarily a problem. Notwithstanding the overall continuity of buildings and the use of space at Aşıklı Höyük, new buildings and redevelopments of parts of the settlement do occur, and as a result some parts of the plan seem to be ‘incongruous’ where it is impossible to arrive at a coherent plan. For instance, the walls that run into the sections of trench 4L/M do not seem to fit those of the surrounding squares. Such issues will be explored further in §4.7.1.

In light of the dynamic nature of loam buildings and the constant process of change taking place in loam built settlements as a whole (§3.5.1), it seems unlikely that large parts of the settlement of Aşıklı Höyük were redeveloped simultaneously. Rather, it is more plausible that renovations and rebuilding activities were local and fragmented. In this respect, any plan of a settlement will represent a moment in time arbitrarily prioritised even in perfect conditions (for instance documenting an existing village). In archaeology such a snapshot will often not be possible to achieve, because of the poor resolution of the data (Horne 1994, 123-5). On the other hand, I believe it is possible, by carefully analysing buildings and their relations to one another, to arrive at an approximation of the manner in which the settlement could have been constituted by buildings with their own independent rhythms of change, at a particular moment in time.

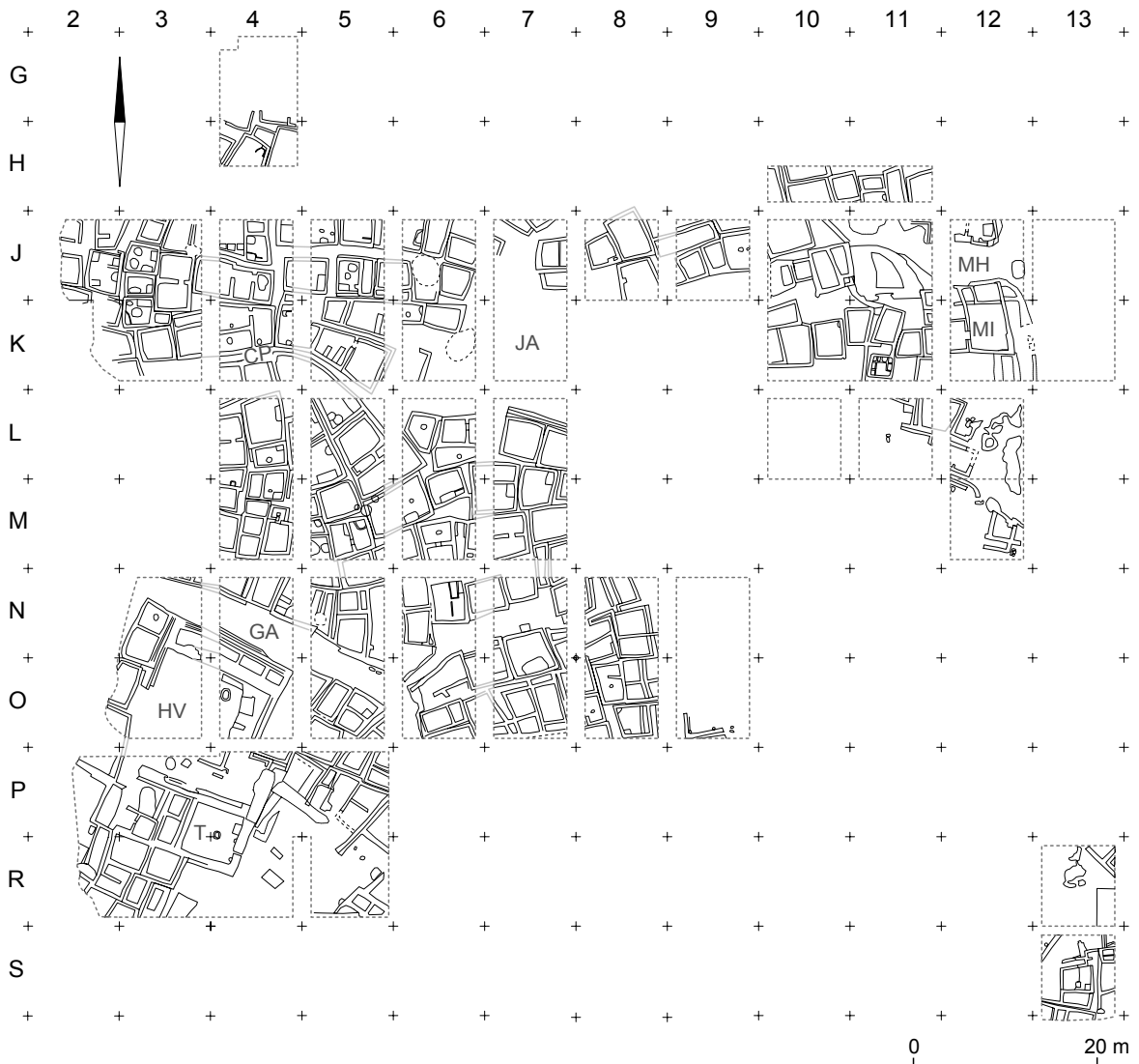


Figure 4.1: Composite plan of Aşıklı Höyük layers 2A-C (trench 4H/G is layer 2B). Based on figures 3 and 10 in Esin and Harmankaya 1999.

4.1.4 ARTEFACTS AND ECOFACTS

In this study the descriptions of artefacts and ecofacts found at the Central Anatolian Neolithic sites under consideration will be kept to a minimum for two reasons: first, detailed discussions of these categories are available in other sources; and, second, these categories do not feature much in the settlement analyses in this study (§2.3.3). Nonetheless, for the sake of completeness, brief introductions of artefacts and ecofacts will be provided in each chapter.

The chipped stone artefacts of Aşıklı Höyük undoubtedly constitute the most intensively studied find category of the site (Todd 1966; Balkan-Atlı 1994; 1998; Abbès *et al.* 1999). The chipped stone consists almost entirely of obsidian that was obtained from the nearby Kayırlı and Nenezi Dağ sources (Gratuze *et al.* 1994; Balkan-Atlı *et al.* 1999b). It seems to have been brought to the site in blocks, where it was further processed. Two types of cores were found, the most common is the opposed platform core with two striking platforms on opposite sides; the other type of core has a single striking platform and has a pyramidal shape. The opposed platform cores were used for the production of blades with a hard percussion technology that was inefficient in terms of

the number of blades that could be obtained from a core (Abbès *et al.* 1999, 125). The pyramidal cores were used for obtaining flakes. The blades, flakes and core preparation and core rejuvenation flakes were all used for producing tools, which were often retouched on the dorsal face. Pressure flaking was not used. The most common tools are scrapers, followed by retouched blades, whereas projectile points are rare. Microliths are more common in the early phases of layer 2, and decrease in quantity in phases 2A-C (Balkan-Atlı 1998, 87; Abbès *et al.* 1999, 119).

The chipped stone industries from Aşıklı Höyük form a distinct tradition unrelated to the sophisticated knapping methods used in the Fertile Crescent (Todd 1966, 162; Abbès *et al.* 1999, 127; Balkan-Atlı *et al.* 1999b, 241; §1.3.3). It is also different in many respects from the later industries of Canhasan III and Çatalhöyük, although in this case a developmental relation can be demonstrated (Todd 1966, 162; Balkan-Atlı 1994, 221; 1998, 87).

In contrast to the chipped stone industries very little has been published on other categories of artefacts found at Aşıklı Höyük. Mention is made of clay figurines, mostly depicting animals that cannot be identified more precisely because heads and legs are missing. Beads are common, some of which are made from copper (Esin 1995). Other conspicuous find categories are bone hooks and buckles similar to those found at Çatalhöyük. Also common are ground stone artefacts produced from volcanic rocks, such as basalt (Güldoğan 2003). Polished stone tools, such as celts, are rare.

The excavators of Aşıklı Höyük have posited in several articles that hunting and gathering was the predominant mode of obtaining food, and that agriculture and animal husbandry played a role of secondary importance (Esin *et al.* 1991, 132; Esin 1998a, 98-9; Esin and Harmankaya 1999, 126). This view does not seem to be borne out by the faunal and botanical evidence and has recently come under attack (Asouti and Fairbairn 2002, 183-6).

On the basis of morphological indicators it is clear that none of the animals upon which the people of Aşıklı Höyük depended had been domesticated. However, among the animals represented in the faunal remains more than 84 % belong to sheep and goat, demonstrating that these animals played an important role in the economy. Other species found are cattle, pigs, equids, and deer. The sheep and goat have a kill-off pattern that is argued to be characteristic for herded populations. On the basis of the age and sex profile of the sheep and goat assemblage at Aşıklı Höyük, Buitenhuis posits a 'proto-domestication' stage at the site, in which animals were kept and exploited, but did not yet morphologically differ from wild populations (Buitenhuis 1997).

Among the botanical remains of Aşıklı Höyük are domestic einkorn, emmer wheat, naked barley, and a free-threshing wheat. More important than wheats were pulses, in particular bitter vetch, which was probably cultivated. Amongst the wild plants used, hackberry was of considerable importance (Van Zeist and De Roller 1995).

4.2.1 THE AŞIKLI HÖYÜK SETTLEMENT

The settlement at Aşıklı Höyük consists of four distinct components. First, there are a number of streets and alleys within the settlement that divide the settlement into blocks. These streets vary greatly in their width and elaborateness. On the one hand there are narrow alleys (like 'CP') that are less than a metre in width, with a winding course and an earthen surface. On the other hand, there are a number of broader streets, with a width of up to 4 metres. The best preserved of this type of streets is 'GA' which has a straight course and is paved with pebbles. Given the differences between these two types of street it seems likely that they served different purposes. I will return to this issue later on in this chapter (§4.10.2).

Second, there are a number of midden areas in the Aşıklı Höyük settlement, the largest of which is 'JA'. These midden spaces were in use for dumping domestic refuse, the most conspicuous elements of which consist of ash deposits and bone debris. Nothing has been published so far on the matrices of these midden deposits, but the excavators argue that these spaces were in use for a variety of activities, including the production of bone, antler and obsidian tools, butchering activities, and processing of plant foods, as well as for the disposal of refuse (Esin

and Harmankaya 1999, 125). Thus, many of the activities that would occur in a domestic context elsewhere took place in such communal open areas at Aşıklı Höyük. It is clear from the deep sounding 4H/G that middens may be consistently located in the same areas over long periods of time (Esin and Harmankaya 1999, fig. 8).

A third element in the Aşıklı Höyük settlement is formed by the large monumental complexes, at least two of which seem to be present. These complexes differ from other buildings at the site with respect to their size (they are much larger than the normal buildings), the building materials used (for instance the use of stone as a building material), building techniques used for their construction (such as walls built of multiple parallel loam slabs), and the presence of features not found in other buildings, such as round hearths and elaborate painted floors.

The fourth component of the Aşıklı Höyük settlement comprises of small loam buildings that are clustered in neighbourhoods. These neighbourhoods are built with a massive façade at the interface with streets and alleys, but open up towards the large midden area 'JA'. Within the individual neighbourhoods there are some open areas, but as a rule these are not continuous spaces that could have functioned as streets. In most cases these open spaces seem to have served as midden areas.

In the following sections I will discuss the buildings of Aşıklı Höyük in more detail, focusing first on the small loam buildings, and second on the large building complexes. Later on, the spatial configuration of the settlement as a whole will be considered.

4.2.2 THE LOAM BUILDINGS

This category of buildings constitutes the large majority of the structures found at Aşıklı Höyük. The buildings were constructed with loam slabs that were approximately 6 to 8 centimetres high, 25 to 30 centimetres in width and between 60 and 100 centimetres in length (Esin and Harmankaya 1999, 125). Because the slab sizes are not standardised it has been posited that they were not mould shaped, but were cut. The fact that these slabs often contain vegetal inclusions suggests that some form of preparation preceded the extraction of the slabs. It has been suggested that the loam slabs were transported to the building site on boards, where they were incorporated into the walls possibly in wet condition (Bıçakcı and Özbaşaran 1991, 136). In between the loam slabs mortar was applied that was often of a thickness equal to that of the slabs. After the wall was finished it was in some instances 'smoothed' by cutting uneven parts of the bricks. This process could be seen most clearly in the corners of buildings, where bricks often had trapezoidal shapes (*ibid.*). After the wall was finished a loam plaster of about 1 centimetre thick was applied that served as the basis for finer plaster layers. Floors were constructed in the same manner. Both floors and walls were plastered on a more or less regular basis. In one of the excavated rooms, 'room A' (trench 3K, see fig. 4.1) 13 floor levels have been recognised.

In most cases the individual buildings of Aşıklı Höyük can be distinguished clearly, due to the absence of party walls. Some buildings seem to contain two or three rooms, whereas others have only one. The buildings with two or three rooms occasionally have interior doors. None of the buildings found at the site have a door to an exterior space (Özbaşaran 1998, 555; Esin and Harmankaya 1999, 125). The Aşıklı Höyük buildings are commonly reconstructed with flat loam roofs. Calculations by architects of the load bearing capacities of the walls of the Aşıklı Höyük buildings have shown that these were probably single storey structures, because the walls could not have supported an upper storey (Esin *et al.* 1991, 149-53).

The only possible means of entry into these buildings was from above, probably by means of a ladder. In those cases where a building consisted of multiple rooms it is impossible to determine how many ladders would have provided access to the building and where they would have been located. If a doorway connecting a room of a building with other rooms has not been found this does not necessarily mean that it was accessed by means of a ladder, because a porthole could have been located in the higher part of the wall which may not have been preserved.

The buildings are constructed in tight clusters. Although ideally plans seem to have been rectangular, many buildings were modified to fit the specific circumstances of their location. For that reason many units are trapezoidal in outline or have rounded walls. The site was densely occupied and in many areas every available parcel of land seems to have been used. In some instances narrow alleys are present in between buildings. There are also broader streets, such as streets GA and MH that separate neighbourhood blocks, and open spaces, such as the large midden area JA. Whereas the neighbourhoods form a solid façade at the interface with streets and alleys, they are much more open in the direction of the midden area 'JA'.

There are a number of aspects of the loam buildings at Aşıklı Höyük that require further consideration. First, I will discuss the sizes of the rooms and in what manner rooms can be grouped into clusters of several rooms. Second, I will discuss the features found within these rooms, and what their distribution can tell us about the use of space in the settlement of Aşıklı Höyük. Third, I will discuss the diachronic aspect of the loam buildings at Aşıklı Höyük, and what this perspective can tell us about the meaning of buildings in this cultural horizon.

4.3.1 ROOMS OF LOAM BUILDINGS

A cursory glance at the plan of the layer 2A-C settlement at Aşıklı Höyük reveals that there is a considerable amount of variability in room shapes and sizes. In this section I will explore whether there are any clustered associations in the distribution of room sizes, or whether we are dealing with a continuum. In the first case we might be dealing with different categories of rooms that were used in distinct ways. If we are dealing with a continuum, however, such an argument is more difficult to substantiate.

Approximately 345 rooms of loam buildings (excluding the large complexes) have been documented in the publications of Aşıklı Höyük. The actual number of excavated rooms must have been higher than that. Some spaces that are mentioned in the publications are not represented on any of the published plans.⁵⁹ However, it is probable that the undocumented group of buildings is limited to the few outlying trenches that could not be fitted onto the plans, and some areas in which excavation proceeded below the subsurface architecture of layers 2C-A. As an estimate, a total of about 400 excavated rooms seems plausible. Of the rooms investigated in this study only a minority were exposed completely. The interior size of 129 spaces can be determined, amounting to 37 % of the sample.

The fact that 63 % of the rooms could not be measured is caused by two factors. First, in a minority of cases this is due to incomplete preservation of the structures, which were affected by erosion, and these are mostly located along the edges of the mound. Second, a large number of the rooms were incompletely excavated. Many buildings are in part hidden beneath unexcavated parts of the mound and standing sections. At Aşıklı Höyük this problem is particularly prominent because the sections in between the trenches are two metres wide.⁶⁰ The effects of the use of two-metre-baulks are twofold: first, a greater part of the structures and deposits remain unexcavated; second, it is more difficult to correlate structures in adjacent trenches with one another. At Aşıklı Höyük there are many areas where it is not possible to link structures that run into sections with other structures in the adjacent trench that run into the same section from the opposite end.

The rooms of Aşıklı Höyük are of a great variety of shapes, including more or less square rooms (for instance FO in square 7L), long rectangular spaces (GC-6J),⁶¹ trapezoidal rooms (DA-5K), and irregular shapes (JB-6L). Due to this diversity in the shapes of rooms at Aşıklı Höyük it is

⁵⁹ In particular I can mention: first, the buildings of level 3 excavated in deep sounding 4H/G; second, the buildings excavated in trenches 14A/B, 17S, and 2M; and third, two buildings referred to by Özbaşaran (1998, 562-3), but not on the plans (spaces NF and OC).

⁶⁰ Single to half a metre wide baulks are more customary in Near Eastern archaeology.

⁶¹ These designations should be read as follows. In front of the slash the space designation is indicated, followed by the trench number.

not possible to make a reliable estimate of the size or shape of a room or building that runs into the section. For instance, there is only a partial correlation between the width and the length of rooms (see fig. 4.2).

The internal widths of the rooms at Aşıklı Höyük are determined by a number of factors. First, the maximum width of rooms is determined by the manner of roofing and the type of beams used. Apart from a limited number of exceptions, the roof beams do not seem to have been supported by any posts or buttresses. Evidence for the use of posts has only been found in the large monumental courts T and HV (Esin and Harmankaya 1999, 124), and a very limited number of six unequivocal buttresses were encountered at the site.⁶² All these buttresses were without counterparts on the opposite wall, and for this reason do not seem to have had any kind of structural role for supporting the roof.

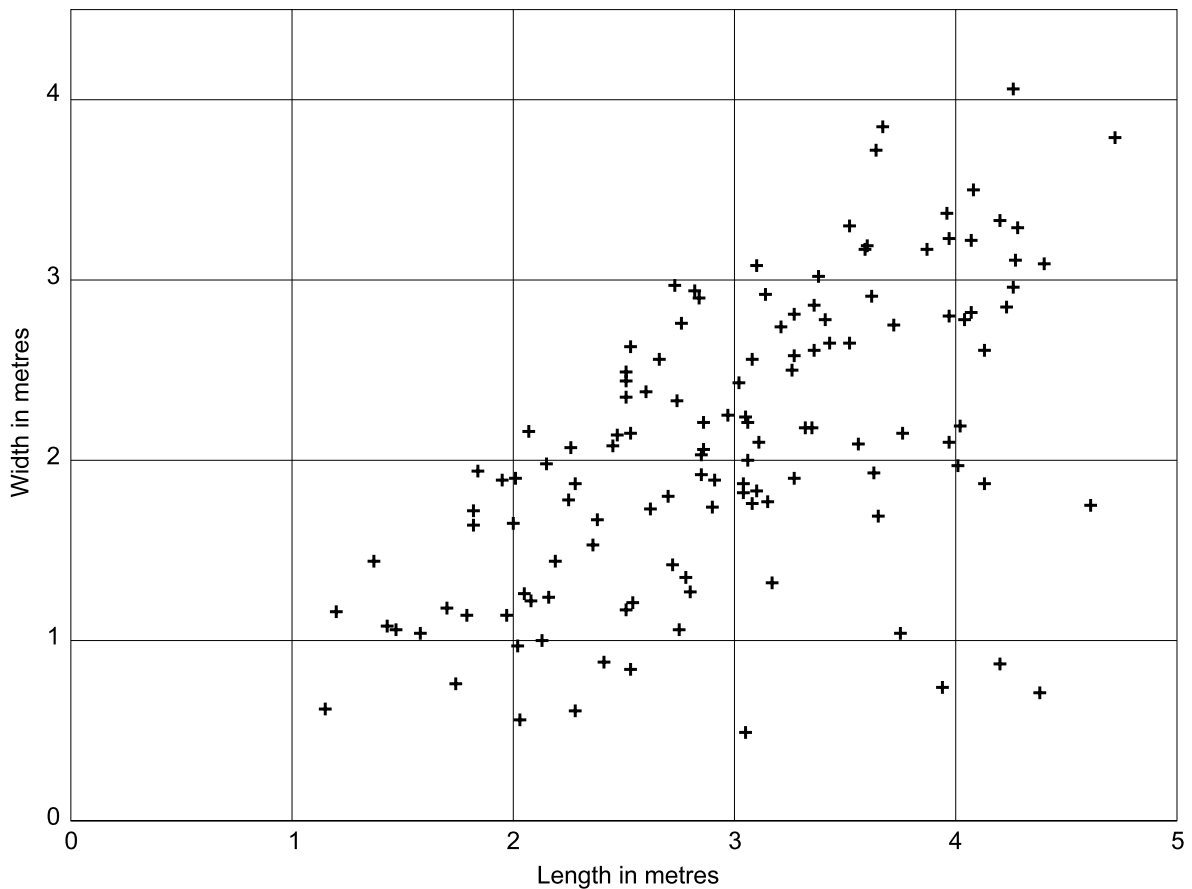


Figure 4.2: Interior width and length in metres of the rooms in the Aşıklı Höyük neighbourhoods (n=129).

The maximum widths of the rooms in figure 4.2 accords well with the ethnographical data on vernacular Near Eastern building practices discussed in chapter 3. On the basis of these data it was concluded that given the technology of flat loam roofs girded by beams without further

⁶² In buildings BM-5J, DV-5N, PR-8J, PU-8J, VK-12L, and X12-13S. Another possible buttress was located in building AT-4G, in layer 2G.

support, the maximum possible roof span would be in the range of $3\frac{1}{2}$ to $4\frac{1}{2}$ metres, but most rooms would be below $3\frac{1}{2}$ metres in width (see §3.3.7). In figure 4.2 there are five buildings between $3\frac{1}{2}$ to $4\frac{1}{2}$ metres in width,⁶³ whereas the remainder are less than $3\frac{1}{2}$ metres in width.

Apart from a maximum width, there is also a minimum threshold to room widths below which the construction of a room is not practical, probably because such rooms are too narrow to be useful. At Aşıklı Höyük this threshold seems to have been at approximately half a metre (see fig. 4.2), although the vast majority of rooms are more than a metre in width (92 %). The $\frac{1}{2}$ metre threshold is probably related to the fact that spaces below this limit can no longer be traversed with ease.

Another factor that may influence the width of rooms may be the available plot in which a room is constructed. For most of the rooms in figure 4.2 the length is not more than twice the width. However, there is a substantial group of relatively long and narrow spaces that fall outside this description (in the lower right hand corner of figure 4.2). It seems plausible that these spaces diverge from the ordinary proportions because they had to be accommodated within available plots in between older buildings. Long narrow buildings are inefficient in terms of the available space in relation to the building efforts. In some cases it is not clear whether such spaces were long narrow rooms or open alleys (for example JM-6M).

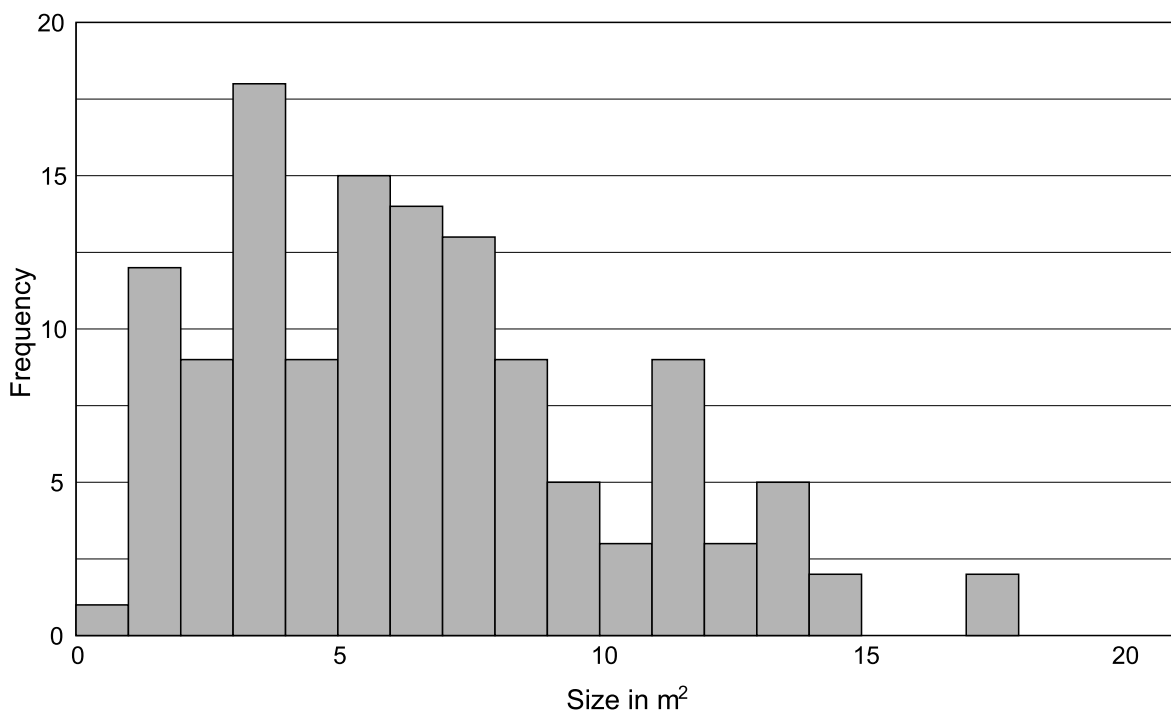


Figure 4.3: Interior room sizes in m² at Aşıklı Höyük (n=129).

The room size distribution of Aşıklı Höyük is shown in figure 4.3. Like the widths of spaces their sizes are clustered in a restricted range. The average interior room size is about 6.5 m², and the large majority of rooms is in the range of 2 – 12 m² (80%). About 10 % of the rooms are smaller than 2 m², and likewise 10 % are larger than 12 m². The room sizes of Aşıklı Höyük are remarkably small in comparison with the other Central Anatolian Neolithic sites (see chapters 5-8). The largest

⁶³ These are buildings EK-3/4J, FO-7L, GM-4L, MI-12K, and SN-7N/O. All of these buildings have been assigned to layers 2A-C. Note that building T, which measures 5.42m in width, has been omitted from this sample, because it was a far outlier in the distribution of the sample.

space in the sample measures about 17 m² (GM-4L and SN-7N/O). In the next section I will explore whether these small rooms are part of larger units.

4.3.2 BUILDING UNITS

Two observations allow us to connect rooms with one another in the plan of Aşıklı Höyük. First, some rooms are connected by way of internal doors. Second, spaces can be linked because they share a set of outer walls. In many instances adjacent rooms are separated by double walls. In those cases where this is not the case, this probably indicates that such rooms are part of the same building unit (Esin *et al.* 1991, 139). Both during the initial construction of a multi-room building, and during later renovations such spaces were inevitably linked with one another.

It is important to note at this point that both ways of linking spaces are not deterministic. For instance, it is possible that a building with multiple rooms was planned as a coherent unit, but was at a later stage divided. Similarly a door connecting two spaces may have been in use for a limited episode during the existence of a building only. Such developments, in which the uses and associations of spaces change in a dynamic fashion, have been documented both in historical archaeology (Stone 1981), and in ethnography (Friedl and Löffler 1994).

The resolution of archaeological data generally do not allow us to closely monitor the dynamics of individual structures.⁶⁴ The circumstance that a particular phase of the existence of a building is prioritised in this analysis, for instance the phase associated with its earliest occupation after initial construction, does not concern us here in the absence of a final report on Aşıklı Höyük. The idea at this point is merely to obtain a picture of what the characteristics of building units combining several spaces could have been, in order to understand more about how they might have been used. The fact that these buildings may change in a dynamic fashion does not affect such a general inquiry as that pursued here.

Combining spaces on the basis of common exterior walls or interior doors, we can distinguish two types of building units in the neighbourhood clusters at Aşıklı Höyük (*cf.* Esin *et al.* 1991, 138-9). First, there are units consisting of single rooms surrounded by their own walls, and as a rule, larger than the average rooms at the site. Second, there are units with multiple rooms, which share their walls with one another, and are in some cases connected by internal doors.

4.3.3 SINGLE ROOM UNITS

There are 26 more or less completely exposed single room units, and a number of possible others at Aşıklı Höyük.⁶⁵ The following measurements summarise these 26 single room units (see also fig 4.4). The average size of these units is 9.3 m². Apart from two buildings with an internal size between 16 and 18 m² the distribution resembles a normal distribution, in which the mean, the mode, and the average all coalesce. The mean size of these single room units (9.3 m²) is considerably larger than that of the average of all the rooms at the site (6.5 m²).

⁶⁴ There are a few exceptions in which archaeologists have been able to reconstruct multiple stages in the use-life of buildings. One example is the work by Stone (1981) who combined textual information with archaeological evidence to reconstruct the developments that two buildings in Old Babylonian Nippur went through. Another example is the recent work at Çatalhöyük, where careful analysis of the well preserved architectural remains allows a detailed reconstruction of the building sequences (Hodder 1998b; Cessford in prep-c).

⁶⁵ The following rooms are relatively clear examples of freestanding single room units: BO/CE; DG; DY; EE; FO; GE; GG; GM; GO; H; I; JB; JH; KA; KG; KV; L; LG; OU; OV; PD; PO; PR; RN; RU; and SN. Other possible examples are rooms: DL; DM; DN; FG; GY; HZ; JZ; KE; KF; KU; OD; PU; and SM.

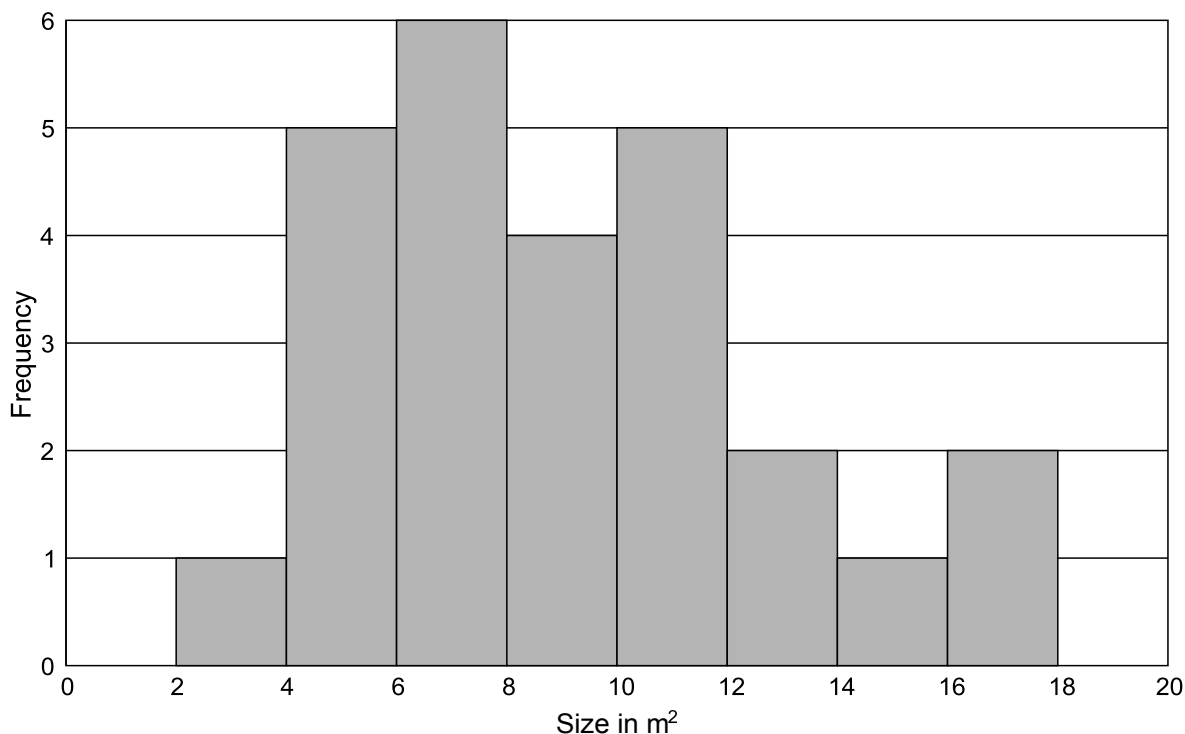


Figure 4.4: Internal sizes single room units in m² (n=26).

4.3.4 MULTIPLE ROOM UNITS

The 23 multiple room units⁶⁶ that were exposed to such a degree that their interior surfaces could be measured, are somewhat larger than the single room units, but not as much as one would expect (see fig. 4.5). The average size of the multiple room units is 13.0 m². However, this mean value does not summarise this population adequately, because the size distribution of these units suggests that there were marked differences in sizes between the units, and that we are not dealing with a normal distribution, but with a tri-modal spread, with modal values at about 10 m², 17 m², and 23 m² (see fig. 4.5).

However, given the limited population we are dealing with (n= 23), it would be hazardous to read much into figure 4.5. In the given situation it is impossible to determine whether we are dealing with some form of functional or social differentiation between these units. One element we should keep in mind at this point is that the smaller units have a greater chance of being exposed in their entirety than do the larger units. A glance at the overall plan of Aşıklı Höyük suggests that the larger units are not as exceptional as is suggested by figure 4.5. In this respect it is possible that the multi-modal distribution in figure 4.5 could in reality represent a continuum of sizes, with an asymmetrical predominance in the lower range of its distribution. Working from that premise, it would seem that the interior sizes of multiple room units range between 4 and 26 m², with a predominance in the range of 8 – 12 m².

⁶⁶ The following multiple room units were more or less completely exposed: A/U; BM/BP; BR/BU; CC/CD/EK; CH/CJ/CK; CY/CZ/X6; DA/DB; DJ/DK; DS/DT; EC/ED; FK/V; GR/GS; GZ/HA/HB; HC1/HC2; J/K; KB/KC; KD/LJ; LD/LE; PB/OZ; PC/PG; TI/UH; TM/TN; and UC/UR. Other possible multiple room units are: BA/BB; BI/BL; CJ/CH; CB/EL/EM; CG/EN; CN1/CN2/CL; EF/EG; FY/NI; GH/GK; GN/HE; GP/GV; JE/JF/JP; JL/JO; JU/JV (layer 2E); RY/SF/SG; SA/SB/SC; SB/SO TV/UG; TY/TZ/UA; and UD/US.

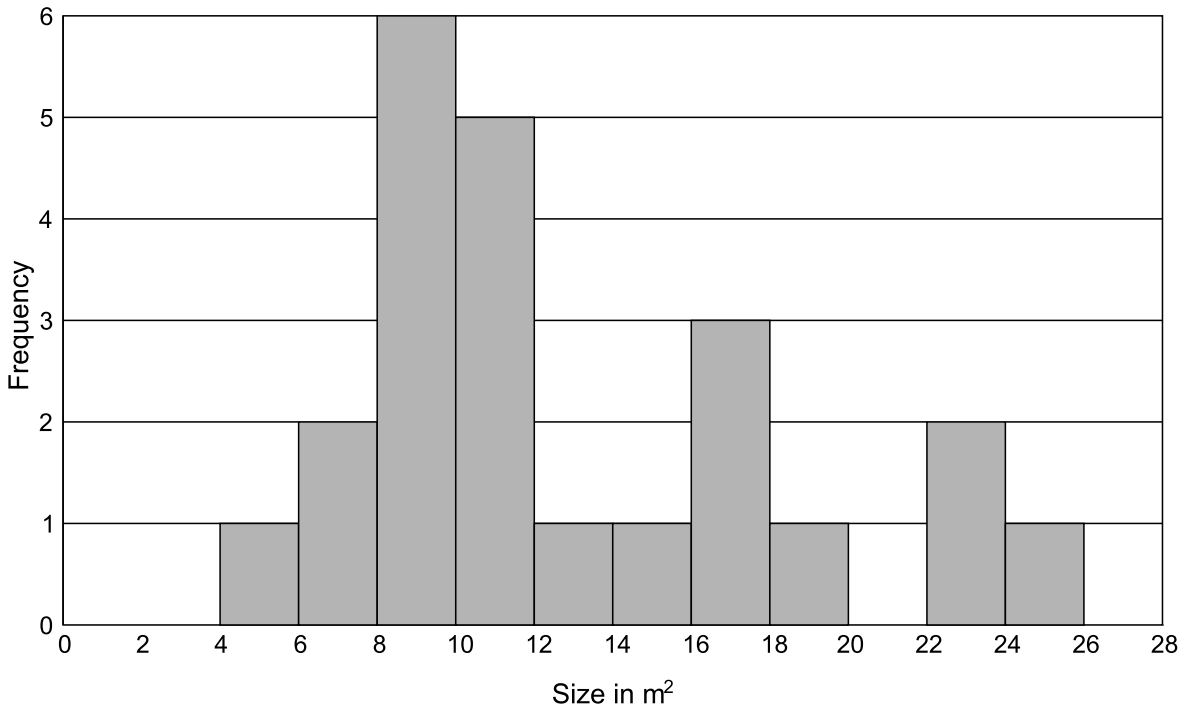


Figure 4.5: Internal sizes in m² of multiple room units (n=23).

4.4.1 THE FEATURES IN THE LOAM BUILDINGS

In this section I will explore the nature and the distribution of the features that have been found in association with the loam buildings of Aşıklı Höyük, either embedded in the floor of buildings or located beneath their floors. The spatial distribution of both objects and features over buildings could potentially be a powerful element in the reconstruction of the use of space in this settlement. Whereas portable objects require an *in situ* context to be informative, other objects, such as large grinding stones may have been fixed elements. An embedded grinding stone provides an important piece of information with regard to the use of a particular space. Likewise the location of hearths, platforms, and bins is of considerable importance. On a different plane the distribution of burials may provide us with an insight into the symbolic differentiation of space.

The study of spatial distributions requires a detailed publication archive that presents the precise locations and characteristics of features and fixed objects. At Aşıklı Höyük such information is only partially available. No final publications have appeared, and the preliminary reports do not list all the necessary details. The following account will, by necessity, be partial and skewed, but it will illuminate some of the general patterns of the use of space at Aşıklı Höyük that can enhance our understanding of the site considerably.

The following features have been documented in the Asikli Höyük loam buildings: hearths, sub-floor burials, pits, postholes, bins, benches, and 'braziers'. Furthermore, some grinding stones embedded in floors have been reported. In general it seems that apart from hearths, it is rare to find features or *in situ* objects in the Asikli Höyük buildings. This may in part reflect the lack of detail in the publications on the site, but probably relates also to a real absence of these features and objects (Esin *et al.* 1991, 130). Due to these circumstances it is impossible to perform a spatial analysis of all features and *in situ* features, simply because little can be based on the isolated occurrences of most features and artefacts.

For the sake of completeness I will mention some of these cases. Only three grinding stones can be traced to their original location. Apart from these, only a small group of objects can be assigned to a specific room. In most cases it is not documented whether these objects were found in

the fill or on the floor of a room. With respect to features, mention is made of ‘braziers’, small circular pits of about 20 centimetres in diameter dressed with river pebbles, which are sometimes present in duplicate near hearths (Esin *et al.* 1991, 130). No detailed data have been published on these ‘braziers’, that can for the most part not be located (apart from those in space CG). Furthermore, isolated references are made to benches and platforms, but it is far from clear how common they are, and where they are located. Ovens seem to be rare and are probably located only in complex HV. Three examples are known, located in courts T, HV and HG. The oven in court HG is very large (see fig. 4.1). Bins seem to cluster in a few rooms: seven bins were found in room PP, three in TM, and three in room RL (layer 2I). However, it is plausible that bins were more widely spread in the settlement. Finally, there are some possible occurrences of buttresses in the plan (rooms BM, MF, PU, and VK), but in most cases it is more likely that we are dealing with walls of previous or later phases rather than true buttresses. In all the cases mentioned it is essential to have more detailed information before any form of spatial analysis can be undertaken.

There are two types of features for which we possess somewhat more reliable evidence that will be discussed in more detail in the following sections. These are: first, the hearths, which are represented on the plans and have been the subject of a separate publication; and second, the sub-floor burials, which have been more systematically discussed in the preliminary reports than other types of features.

4.4.2 HEARTHES

Hearths at Aşıklı Höyük are rectangular features, ranging in size from 2.70 by 1.10 m to 0.80 by 0.60 m, and are usually placed in one of the corners of the rooms. Hearths were constructed in a rectangular depression that was dressed with flat pebbles. Along the edges larger stones of a suitable flat shape were used for creating an upright edge that generally stood no more than 20 centimetres above the level of the floor. On the short side of the rectangular hearths, this upright edge is missing, and it was here that the fire mouth was located, and it is also in this area that concentrations of ash were often found. The pebbles along the edges of the hearth and on its floor seem to have been covered by a thin plaster layer (see figs. 3.1 and 3.2 in Özbaşaran 1998). In a few cases the hearths seem to have had some sort of flue (*ibid.*, fig. 2.3).

The hearths are undoubtedly the best published set of features of Aşıklı Höyük. In a publication devoted to these hearths Özbaşaran (1998) discusses all of the hearths that had been found up to the 1995 season. This is not a complete sample of the hearths, because additional trenches were excavated in later seasons.⁶⁷ However, these subsequently excavated trenches constitute only 15 % of the total excavated area, which means that the large majority of hearths have been discussed and analysed by Özbaşaran. In addition, we can include a number of hearths in the trenches that were excavated in later seasons, because some of them are clearly represented on the various plans that have since been published.

Özbaşaran reports that hearths were always found within internal spaces, and in all but two cases within single room units (1998, 556, see also Esin *et al.* 1991, 138-9). Furthermore in her sample a total of 77 hearths were found within a total of 220 rooms, which amounts to about 35 % of the rooms.

In the total of 345 rooms in the present sample 92 hearths are documented, amounting to 27 %. The 35% mentioned by Özbaşaran is probably more accurate, because the excavations as a whole have not been published in detail.⁶⁸ As a test case we can take the well-published data from

⁶⁷ It seems that the buildings in trenches 7N/O, 8N/O, 11L, 12L/M, and 13R/S were excavated after Özbaşaran's analysis, because these buildings are not on her plan (compare Özbaşaran 1998, 561 with Esin and Harmankaya 1999 fig. 3), and hearths from these buildings are not mentioned in her inventory.

⁶⁸ In this regard it seems unlikely that large numbers of hearths could have been missed. The hearths are located on the floors of the rooms, and are easily recognisable because they are large, and because distinct materials are used for their construction that clearly distinguish them from the surrounding floors.

layers 2B-I in the deep sounding 4H/G (Esin and Harmankaya 1999), in which 21 hearths were found in 19 rooms, on a total of 67 rooms that were exposed. In this sample 28 % of the rooms contained a hearth. On that basis it seems reasonable to suggest that about 30% of the buildings as excavated contained a hearth.

Many of the rooms of Aşıklı Höyük were only partially exposed, so that the real percentage of hearths in rooms, as opposed to the excavated assemblage, may have been somewhat higher than 30%. For the limited group of buildings that were exposed entirely the following data are present: 14 out of the 26 single room units contained a hearth (54%), and 9 out of the 23 multiple room units (39%). The average percentage of building units containing a hearth on the basis of these figures is 47%.

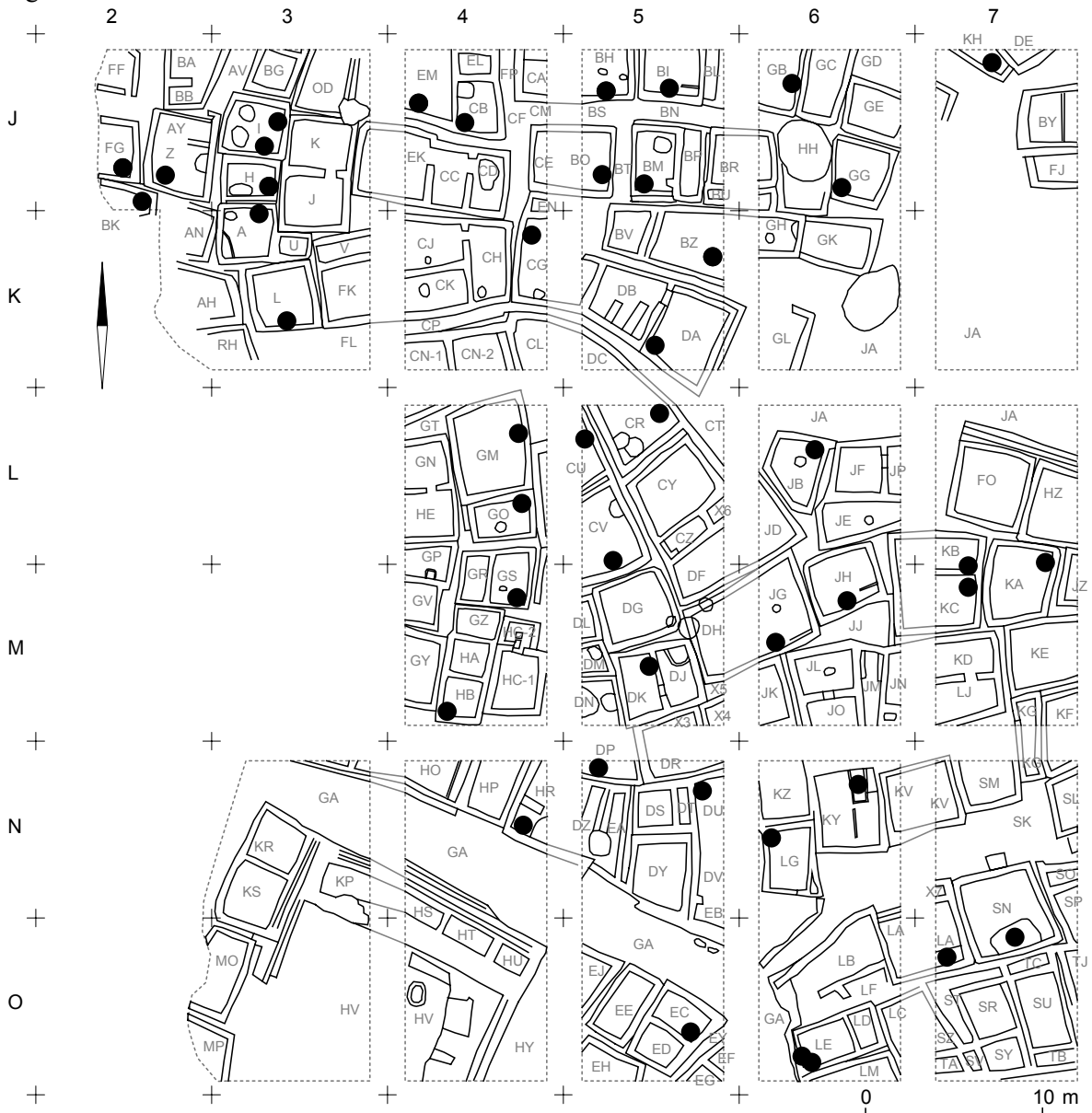


Figure 4.6: Distribution of hearths (dots) over the northwestern part of the layer 2A-C settlement of Aşıklı Höyük.

Summarising the distribution of hearths we can make the following observations. First, Özbaşaran's hypothesis that hearths are mainly to be found in single room units is only partially corroborated. There are also a substantial number of hearths in multiple room units. Second, hearths seem to be present only in a selection of the buildings at Aşıklı Höyük. Apart from the presence of hearths, there is no particular characteristic that distinguishes these buildings from others. The 'hearth-buildings' are no larger than average, nor are they positioned in any distinctive manner within the settlement (see fig. 4.6).

The orientation and placement of the hearths varies considerably. They are always constructed with one edge along the wall, but occur both in corners of buildings and in central positions adjacent to the walls. Furthermore, hearths have been found in all orientations (north, south, east and west). This flexible positioning of the hearths seems to indicate that their location was not determined by general macro-ecological factors, such as prevailing wind directions, nor determined by cultural norms regarding spatial configurations of features within buildings (Özbaşaran 1998, 556).⁶⁹

On the other hand, it is possible that the local topography of the settlement may have exerted some influence over where hearths were placed. We could posit for instance that these hearths were positioned in localities where draft possibilities were good. Such places could be at points where buildings were protruding above their direct surroundings and that were not nodes of communication and transport. In the absence of detailed data on issues such as floor elevations and a sound stratigraphy, it is difficult to determine whether this hypothesis is correct. One issue that does seem to be clear is that in some cases hearths in adjacent buildings seem to be located very close to one another (for instance the hearths in buildings BK/FG/Z, A/H, and KB/KC), a measure which may have concentrated the inconvenience caused by smoke fumes.

From these considerations it should not be concluded that the placement of hearths within buildings was random. As will be demonstrated in §4.6.1 the hearths in the deep sounding 4H/G were consistently located in the same spot throughout a long building sequence, indicating that their positions were not chosen arbitrarily. It seems that once a hearth location was determined it was important that that placement was adhered to in later rebuilding phases of a structure.

4.4.3 SUB-FLOOR BURIALS

In total some 70 burials have been found at Aşıklı Höyük (Esin and Harmankaya 1999, 126). These were all located beneath the floors of buildings. They have been placed there during the occupation of these buildings in pits cut through the floors, after which the floor seem to have been patched. Amongst the burials are people of both sexes and all ages (Özbek 1998, 568). The skeletons were in a variety of body postures, including tightly flexed, extended on the back, and lying sideways (Esin and Harmankaya 1999, 126). Likewise the orientation of the burials varies (Esin *et al.* 1991, 131).

All burials seem to have been primary, judging by the completeness and articulation of the skeletons. Graves contain either single or double burials. There are some interesting indications of the treatment of the dead. In one case the skull of woman seems to have been scalped immediately after her death, as evidenced by cut marks on her skull (Özbek 1993, 207). Another woman's skull seems to have been trepanated several weeks before her death (Özbek 1998, 572). A remarkable feature of the Aşıklı Höyük skeletons is that many of them show signs of burning. In the sample of 48 individuals obtained between 1989 and 1994 this amounted to 55 % of the skeletons (Özbek 1993, 206; 1998, 572).⁷⁰ It is further suggested that some of the burials were wrapped in rush mats or covered by mats (Esin 1998b, 221). Finally, many of the burials contain burial goods consisting

⁶⁹ This can be contrasted with Çatalhöyük, where cultural norms related to the spatial configuration of features within buildings may have been of considerable importance (see chapter 6).

⁷⁰ It has been suggested that the skeletons may have been exposed to fire within the sub-floor burial pits (Özbek 1998, 568), but this has been neither confirmed nor denied by the excavators.

of necklaces and bracelets made of beads of various sorts (heat treated copper, shell, various types of stone, bone and deer teeth).

On the basis of the fact that only 70 burials were found in the approximately 400 rooms at Aşıklı Höyük, it has been suggested that some form of selection of the deceased took place, determining who was buried at the site (Esin and Harmankaya 1999, 126). A first question asked in relation to this issue is: what does the small number of burials found at Aşıklı Höyük reflect? It is possible that the 70 burials are to some degree a function of the excavation methods practiced at the site. Most of the buildings at Aşıklı Höyük were exposed only to their uppermost floor. Given that the burials are located beneath the floors, it seems plausible that if the settlement were to be excavated to deeper levels the number of burials would increase. It is not clear to what degree the 'floor-patches' that sealed sub-floor burials were clearly visible on the floor surfaces during excavation and as such were positively distinct from other types of features. Moreover, assuming that burial pits could be distinguished, it is not indicated in the reports to what degree they were excavated.

The problem is exacerbated by the circumstance that little has been published on the contextual aspects of the Aşıklı Höyük burials. Only 24 burials of the 70 mentioned can be assigned to a specific room on the basis of the information available in the preliminary reports,⁷¹ which makes an evaluation of these issues more difficult. Some rooms contained multiple individuals. As many as four burials were found in rooms AB and I; room HB contained three; and two were found in building P of layer 2G. In other words, of the 24 burials that could be located to a specific room 15 (62%) were buried in a room that was, or had been, used to bury other individuals also. Some of the burials were double interments (room AB contained two double inhumations). Assuming that these numbers are representative for the total group of burials we can estimate that the 70 burials were found in about 40 rooms, which amounts to about 10 % of the rooms excavated.

mound edge	sounding 4H/G	summit of mound
N=10	N=5	N=9
AB (4); H (1); I (4); BD (1)	2F-AS (1); 2G-P (2); 2I-RI (1); 3B-UT (1)	CG (1); DA (1); GE (1); GM (1); GV (1); GY (1); HB (3)
41%	21%	38%

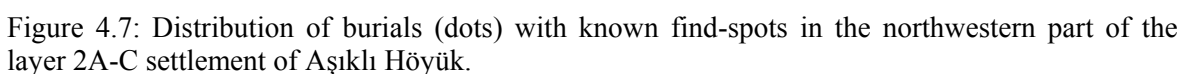
Table 4.2: Buildings and general areas in which the 24 pinpointed burials of Aşıklı Höyük were found.

There are two factors that may shed some light on the question whether the 70 burials from 400 rooms at Aşıklı Höyük are representative for the actual amount of burials below the floors of the excavated buildings of Aşıklı Höyük. First we can study the distribution of those burials that can be located across the settlement. From the hypothesis that many of the burials of layer 2 (sub-phases C-A) remain to be excavated, it follows that most burials excavated so far should be located along the steep edges of the mound, where excavations proceeded to earlier levels. Ten out of the 24 burials that can be pinpointed were indeed excavated along the mound edges (41 %), and an additional 5 in the deep sounding 4H/G (21 %), adding up to 15 burials out of 24 (63 % - see table 4.2 and fig. 4.7). These numbers seem to suggest that the number of 70 burials is too low, and is not representative, but caution is required given the small sample size in table 4.2.

Second, we can look at the number of burials found in deep sounding 4G/H, which has been published in more detail than the other excavation areas (Esin and Harmankaya 1999), to evaluate

⁷¹ The following rooms contained burials AB (4); BD (1); CG (1); DA (1); GE (1); GM (1); GV (1); GY (1); H (1); HB (3); I (4), all of which can be assigned to layers 2A-C. Further burials were found in 02F-AS (1); 02G-P (2); 02I-RI (1); 03B-UT (1).

In summary, on the basis of the above it is possible to argue that the figure of 70 burials is an under-representation of the true number of burials that were interred at Aşıklı Höyük. In fact, this seems to be very plausible, if only because a large part of the settlement remains unexcavated beneath the baulks. On the other hand, the data from the deep sounding 4H/G, which have been published in more detail than the rest of the site, suggest that burials were not a general feature at the site, and were present in a minority of the spaces only.



From this, then, we can conclude the following matters. First of all, some form of selection of deceased people for intramural burial took place at Aşıklı Höyük. Given the paucity of burials it is plausible that intramural burial was the exceptional way of treating the dead, rather than the normal practice.⁷² Given that all ages and both sexes seem to be present (Özbek 1998) the selection criterion for intramural burial was probably not related to these components of the social persona. Second, it is clear that burials were only placed in a minority of the rooms, some of which contained multiple burials. The question why these particular rooms were chosen for intramural burials is of interest, but is difficult to answer on the basis of the present database. It has been suggested by the excavators of Aşıklı Höyük that rooms containing hearths are more likely to contain sub-floor burials (Esin *et al.* 1991, 130). Özbaşaran (1998, 560) states that out of the 44 sub-floor burials documented at Aşıklı Höyük at that point 34 were located in rooms with hearths, amounting to some 77 %. Indeed, of the rooms with burials in the present analysis the majority also contained a hearth: out of the 15 rooms with burials, 10 contained a hearth (67 %). On the basis of these numbers I think it is possible to suggest that rooms containing a hearth were more appropriate for burial practices than those without them.

Apart from this possible correlation it is difficult to find regularities amongst the rooms containing sub-floor burials in terms of size or type of building unit these spaces belong to. Burials were located in all types of buildings. Single room units contained a total of 14 burials.⁷³ Six burials were found in four multiple room units.⁷⁴ Finally, a group of four burials were excavated in room AB, a space that is probably connected to the building complex HV (§4.9.1). The rooms that contain burials do not seem to have been located in distinctive parts of the settlement. The 24 burials that can be located are a minority of the 70 excavated individuals, which may in turn be an incomplete sample of the burial population of the excavated buildings. The meaning we can attach to any kind of patterning in the 24 burials that we can study is thus problematic.

4.5.1 DEFINING DOMESTIC UNITS

In this section the potential for defining domestic units, or households, at Aşıklı Höyük will be explored. Drawing together the data from the sections above it is time to address one of the most fundamental questions we can formulate concerning the built environment at Aşıklı Höyük: can we define in what manner these spaces relate to households. More specifically: can we recognise discrete building units that may have served as households residences at Aşıklı Höyük? A failure to recognise such units may also be informative, because it may suggest that the households were articulated in a different configuration at the site.

On the basis of the preceding sections on the Aşıklı Höyük room sizes, the ways in which rooms are grouped in to building units, and the distribution of features over the rooms, we are now in a position to evaluate the categorisation of rooms that has been outlined by Bıçakçı and Özbaşaran (see table 4.3). They have distinguished two types of buildings at Aşıklı Höyük: on the one hand, ‘one-room buildings’ that have their private set of outer walls and contain a hearth; and on the other hand, ‘houses’ consisting of two to three rooms connected by internal doors and without hearths (Bıçakçı and Özbaşaran 1991, 138-9).

⁷² This is similar to the case at Çatalhöyük, where we can likewise demonstrate that a selection of people for intramural burials took place (Düring 2003).

⁷³ These burials were located in units GE (1 burial), GM (1 burial), GY (1 burial), GV (1 burial), H (1 burial), I (4 burials), AS of layer 2F (1 burial), P of layer 2G (2 burials), RI of layer 2I (1 burial), and UT of layer 3B (1 burial).

⁷⁴ These burials were found in units DA/DB (1 burial), CG/EN (1 burial), HA/HB/GZ (3 burials), and BD/BF (1 burial).

<i>Building category</i>	<i>Definition</i>	<i>Hearths</i>
‘one-room buildings’ (Bıçakçı and Özbaşaran 1991)	Outer set of walls clearly distinguishable	Every building has a hearth
‘single room units’ (this study)	Outer set of walls clearly distinguishable	54% contains a hearth
‘houses’ (Bıçakçı and Özbaşaran 1991)	Shared set of walls; rooms connected by internal doors	No hearths
‘multiple room units’ (this study)	Shared set of walls	39 % contains a hearth

Table 4.3: Categorisation of buildings according to Bıçakçı and Özbaşaran (1991) and in this study.

There is a clear correspondence between the one-room buildings outlined by Bıçakçı and Özbaşaran and the single-room units discussed in this study. Similarly the ‘houses’ consisting of two to three rooms are the same as the multiple-room units in this chapter (see table 4.3). However, there are also some clear differences in how these units are conceptualised. First, only in a minority of cases can the multiple-room units be defined by the presence of internal doors, a standard criterion according to Bıçakçı and Özbaşaran. Most of these units are distinguished in this study on the basis of the fact that they share an outer wall. Second, it is not clear on what basis Bıçakçı and Özbaşaran designate the multiple-room units ‘houses’. This designation is especially enigmatic given the fact that they argue that hearths only occur in single room units. Hearths seem clear evidence for domestic activities, which one would assume to take place in a house. Third, a study of the distribution of the hearths has demonstrated that hearths occur both in single-room units and multiple-room units, although they are slightly more common in single-room units. Also, it seems to be the case that many of the single-room units lack a hearth (12 out of 26, or 46%).

On the basis of the evidence presented in the preceding sections it may have become apparent that distinguishing household units at Aşıklı Höyük is not a straightforward matter. A first parameter that we can consider for this purpose consists of the room sizes of individual rooms, single-room units and multiple-room units (see table 4.4). Two issues are clear with regard to this parameter. First, a considerable variability exists with regard to these room sizes. Second, the Aşıklı Höyük rooms and building units are small in size. Even the largest units measure no more than about 25 m², whereas the normal size range is between 5 and 17 m² (see table 4.4).

Rooms and units	Smallest	Average	Largest
All rooms	0.56 m ²	6.53 m ²	17.19 m ²
Single room units	3.35 m ²	9.30 m ²	17.19 m ²
Multiple room units	4.88 m ²	13.00 m ²	25.02 m ²

Table 4.4: The sizes in m² of the rooms and building units at Aşıklı Höyük.

At this point I would like to investigate whether these small single room units and multiple room units could have served as household units. One element in such considerations must be the size of these units. Can we interpret units averaging 9.3 and 13 m² respectively as household loci? A substantial body of literature exists on comparative cross-cultural relations between roofed floor area on the one hand and the number of residents on the other (see Hassan 1981, 63-92; Byrd 2000, 80-5). The formulae most often applied have been used to calculate the ‘human potential’ of the Aşıklı Höyük building units (see table 4.5). The ‘building populations’ derived from these formulae vary dramatically, and seem to be open for multiple interpretations.

The cross-cultural formulae used in table 4.5 have often been critiqued. The most problematic aspect of using these kind of estimates is that population densities of rooms can vary dramatically not only from one culture to the next, but even within a single settlement (Dohm 1990,

204; Friedl and Löffler 1994, 29; Horne 1994, 159). Here, the formulae have been applied simply to obtain a first impression of how many people could have been associated with the buildings. It is of course impossible to interpret the Aşıklı Höyük single and multiple room units as households solely on the basis of their size. On the other hand, the data do not exclude the possibility that these units could have been household residences.

Building units	Average size	Naroll 1962	Cook and Heizer 1968	Casselberry 1974
Single room	9.3 m ²	0.9 persons	4 persons	1.6 persons
Multiple room	13.0 m ²	1.3 persons	5.6 persons	2.2 persons

Table 4.5: Population estimates of Aşıklı Höyük building units using three formulae that relate roofed floor area to the number of inhabitants.

A more contextual approach to the problem involves integrating the features found within buildings into the equation. The most logical idea would be to determine how many rooms were used as living rooms in order to arrive at a better understanding of the use of space at Aşıklı Höyük. Ethnographical studies have shown that: first, living rooms are a good material index for households; and, second, living rooms can generally best be recognised by the presence of hearths (Halpern and Halpern 1972, 16-7; Kramer 1982, 104, 123; Carsten 1987, 156; Horne 1994, 159). In many Near Eastern villages living rooms can also be recognised by the more frequent use of plaster and the superior quality of that plaster (§3.4.4). Some of the ethnographically documented living rooms are rather small. The interiors of the living rooms of Baghestan, in Iran, are only 13.2 m² on average (Horne 1994, table 11). The exterior size (including walls) of the living rooms of Aliabad, also in Iran, is 22.4 m² on average (Kramer 1982, table 4.2). Assuming that the proportion of interior to exterior space is comparable to that in the Central Anatolian Neolithic, the interior space at Aliabad would have been in the range of 13.5-15.0 m².

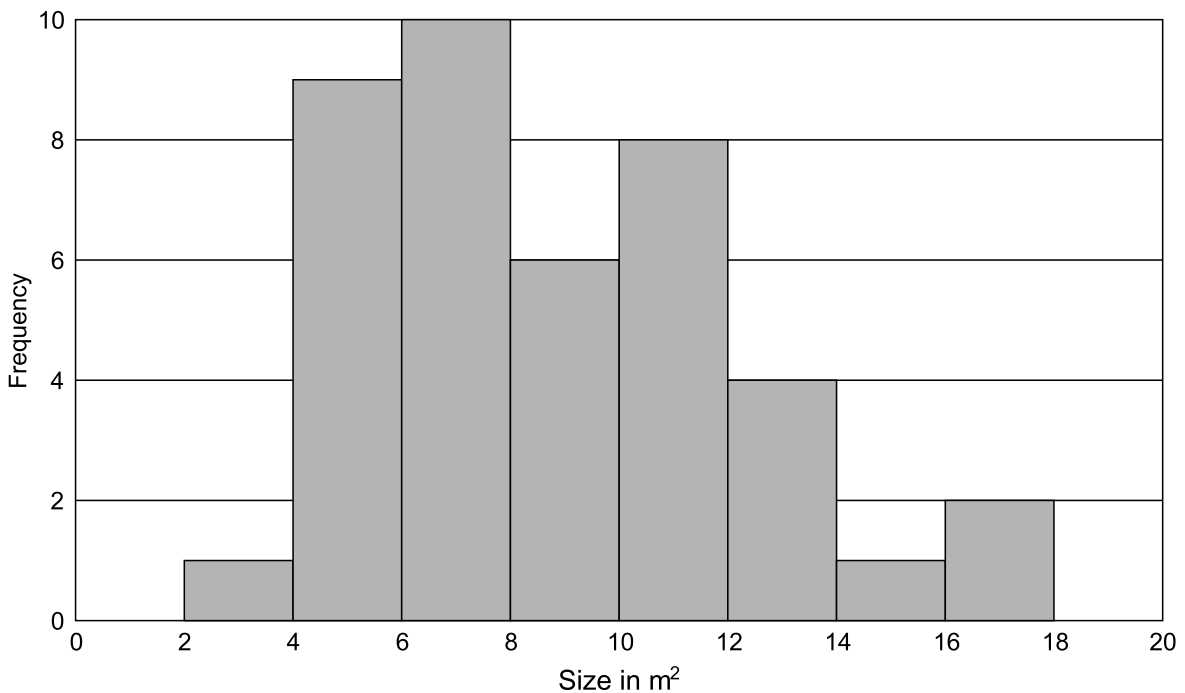


Figure 4.8: Interior size in m² of rooms containing hearths (n=41, mean 8.9 m²).

Comparing these ethnographically documented living rooms with the interior sizes of the Aşıklı Höyük rooms containing hearths, it is possible to suggest that these rooms might have served as living rooms, albeit comparatively small ones. Given that it seems plausible that the people living at Aşıklı Höyük had living rooms, these are the most likely rooms that could have served this purpose.

If these rooms are accepted as living rooms (see fig. 4.6 for their location), the question becomes how these rooms are related to the other spaces at the site. This issue can best be approached by focusing on the completely exposed building units. It has already been mentioned that 54 % of the single-room units contain a hearth and the same is true for 39 % of the multiple-room units. Given the distinctive nature of these hearths and the state of preservation of the buildings at Aşıklı Höyük it is not plausible that a large number of hearths went unrecognised.

Thus, the absence of hearths in many of these buildings is probably a real feature rather than the outcome of excavation methods. Without a hearth, however, these building units could not have functioned as autonomous household loci. It seems then that the discrete building units we can distinguish at Aşıklı Höyük were probably not autonomous household residences.

Moving from the building units to the level of the neighbourhoods we have seen that in all probability less than half of the rooms at the site contained a hearth. How did these 'living rooms' relate to the other spaces that did not have a hearth? The distribution of hearths in the Aşıklı Höyük settlement (fig. 4.7) does not allow for the definition of clusters of rooms centred on a room with a hearth.⁷⁵ In this respect the data from the site do not seem to fit with a model of autonomous and clearly segregated households.

Another characteristic of the Aşıklı Höyük buildings is the relative scarcity of features related to domestic production, consumption, and storage, such as grinding stones, bins, and 'braziers', which seem to be present in only a few buildings (§4.4.1). This can be contrasted with the ubiquity of domestic and craft refuse in midden area JA, which has been interpreted by the excavators as evidence that JA was used for a range of activities, including the production of bone, antler, and obsidian tools, butchering activities, and processing of plant materials (Esin and Harmanakaya 1999, 125). On this basis it can be argued that many domestic activities at Aşıklı Höyük may have occurred in open midden areas, such as JA, rather than within interior spaces. The communal nature of the open midden areas implies that the production and consumption of food stuffs and craft products occurred in a communal sphere, in which economic pooling may not have been limited to the household.

Both in terms of residence and in terms of economic pooling it appears that households at Aşıklı Höyük were not clearly bounded groups. This does not mean that households were not an important organising principle in Aşıklı Höyük society, but that the individual families were in many ways subsumed in a larger neighbourhood association sharing a number of facilities and resources.

I would suggest that this model is appropriate for the Aşıklı Höyük data, on the basis of two arguments. First, the particular type of spatial organisation of the settlement at Aşıklı Höyük did not develop by accident. People must have had a culturally determined preference for living in neighbourhood clusters, and this does not seem to accord with a conception of society in which the individual household is given pride of place. Second, the buildings at Aşıklı Höyük are not well suited to be altered according to the changing demands of their inhabitants. No extra rooms can be added, and in a diachronic perspective the buildings at the site are remarkable because they do not show any changes (see §4.6.1, also Hodder 1998a; Düring 2005a). Thus, buildings were not adapted to the changing demands of household groups but remained more or less static. This suggests a system in which buildings were not owned by household groups, but were distributed

⁷⁵ The fact that not all buildings in the neighbourhoods are in phase does not affect this observation much, because within individual trenches the phasing of buildings seems more consistent, and it is the relation of rooms to their immediate neighbours that is of interest here.

amongst the community according to the needs of family members, and we can envisage people moving from one room to the next, or being assigned extra rooms, rather than adapting buildings to their needs (*cf.* Lane 1994).

Given these circumstances: first, the impossibility of defining spatial clusters that might have belonged to households; second, the fact that there was a preference for living in neighbourhood clusters; and, third, the fact that people probably did not own buildings as households or individuals, it seems to me that the autonomous household model does not seem to fit well with the evidence at Aşıklı Höyük and attempts to distinguish them amount to superimposing an alien concept on the data at hand. Thus I would argue for abandoning any attempt to define clearly identifiable units that functioned as self-sufficient households. Rather, we may start to look for larger associations of rooms, beyond the individual unit, and can model households as a constituent element in the neighbourhood community.

Analysing the settlement of Aşıklı Höyük in these terms is a complex matter. One would expect to find spatial associations of a circumscribed number of building units into building groups, containing a circumscribed number of rooms with hearths. On the basis of the spatial organisation of the settlement, and the articulation of alleys and streets, it is possible to suggest some sort of neighbourhoods in the settlement, but the reconstruction is hampered both by lacunae in the evidence and problems with the temporal resolution of the data. These issues will be explored later in the section on neighbourhoods (§4.7.1).

4.6.1 BUILDINGS IN DIACHRONIC PERSPECTIVE

Generally speaking, the excavation strategy employed at Aşıklı Höyük was geared towards opening up large horizontal exposures in order to document the settlement as a whole rather than exploring diachronic developments. Fortunately a large deep sounding was also undertaken, in trenches 4H/G, providing us with a valuable perspective on the diachronic aspects of buildings at Aşıklı Höyük.

As a rule, buildings were constructed on exactly the same spot and with the same alignment as earlier buildings, using older walls as a foundation. This leads to a structural continuity in building practices in which buildings maintain their characteristics through the centuries. Figure 4.9 represents the building continuity in the deep sounding 4H/G from phases 2I up to 2B. Most of the buildings in sounding 4H/G can be traced through a long development of reconstruction phases, up to eight of which have been documented, amounting to some 5 metres of archaeological deposits (see fig. 9 in Esin and Harmankaya 1999), before the sequence is cut short by erosion of the uppermost deposits. We do not know what the use life of the buildings at Aşıklı Höyük was. At later Çatalhöyük the estimate for the average building is about 60 years (see chapter 6, §6.2.6). If the building at Aşıklı Höyük had a similar use life, the time span represented in figure 4.9 amounts to some 480 years! Even if we take a more moderate use life for the building of Aşıklı Höyük of 30 years as an estimate, we are still dealing with a period of 240 years in this sequence during which buildings were reproduced along the lines of their predecessors.

This is an impressive testimony to the building continuity practiced at Aşıklı Höyük. This building continuity is mirrored in the building sequence at Çatalhöyük (Hodder 1998a; Düring 2005a), but outside the Central Anatolian Neolithic this type of building continuity is unparalleled both in ethnography and in archaeology. It is common to find the haphazard use of older loam brick walls as a foundation for new buildings, but the type of long lasting building continuity encountered in the Neolithic of Central Anatolia seems to be without parallels (Aurenche 1981, 104; Peters 1982; Horne 1994; Facey 1997).⁷⁶

⁷⁶ A possible parallel for this type of marked building continuity is documented at two Neolithic sites in Syria: Abu Hureyra (Moore 2000, 208), and Bouqras (Akkermans *et al.* 1983, 341, fig. 4), that can be dated to the Middle PPNB (8000 – 7500 Cal. BC) and LPPNB (7500 – 6500 Cal. BC) respectively. Only a few buildings, however, have building continuities over extended time periods at these sites, and these structures

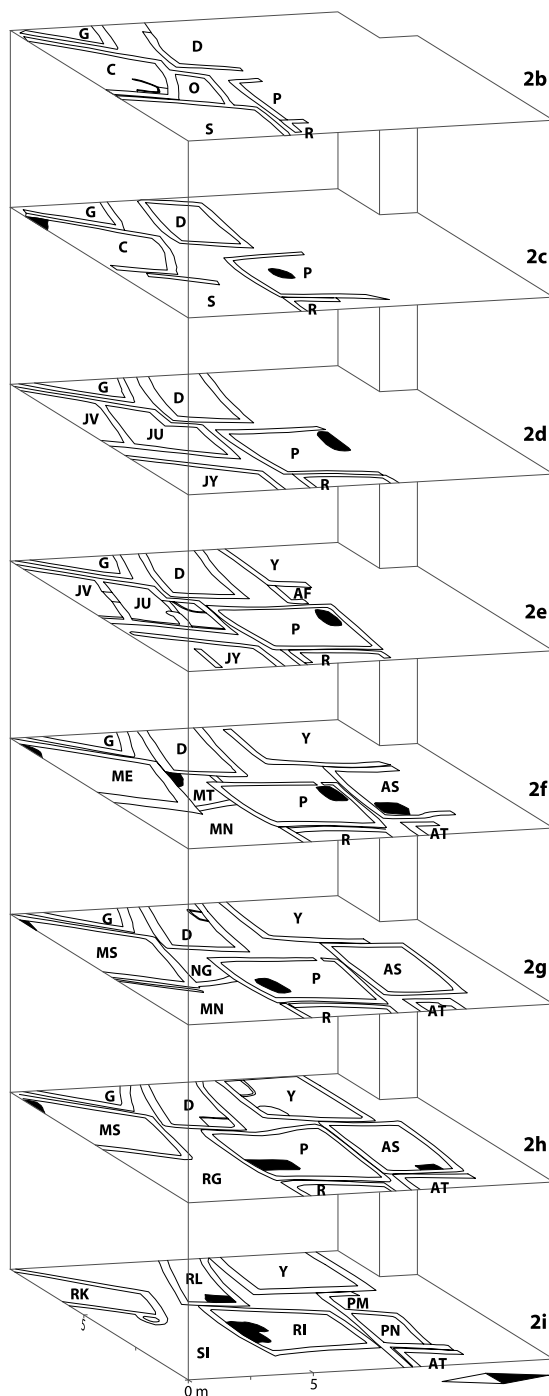


Figure 4.9: Diachronic view of the building sequence in sounding 4H/G from layer 2I to layer 2B.

seem to constitute the exception rather than the rule. Moreover, even those particular buildings that remained in place over time show degrees of change not witnessed in the buildings of the Central Anatolian Neolithic. Another example of marked building continuity is constituted by Mesopotamian temple sequences (Meijer 2002), but in those cases the continuity in place was religiously sanctioned and differed from the foundation practices of domestic buildings.

Despite the exceptional nature of the building continuity encountered at Aşıklı Höyük, it has often been interpreted as a self-evident feature, deriving from a particular set of foundation practices that can be explained as a functional measure. The excavators of the site put it thus: “The plan of a building seems to be dictated by the shape of the immediately preceding structure on that location” (Esin *et al.* 1991, 130). Although this functionalist explanation is certainly valid and reasonable, it is insufficient in my mind to explain the extreme degree of continuity witnessed in the buildings at Aşıklı Höyük, which cannot be adequately explained by functionalist parameters alone.⁷⁷

One element of this continuity that cannot be explained by functionalist parameters, is the position of the hearths within the buildings at Aşıklı Höyük (indicated in black on fig. 4.9), which are consistently located in the same corner of the buildings over many phases of rebuilding. In many cases neighbouring buildings use different corners for their hearths. Thus, there is no standardised location for hearths at Aşıklı Höyük. As has already been argued (§4.4.2) this probably implies that hearth locations are not directly related to factors such as the prevailing wind direction, or micro-cosmological spatial codes.

In sounding 4H/G the following hearth sequences have been documented. In the southwest of the trench a series of hearths can be traced in phases 2H-MS → 2G-MS → 2F-ME → 2C-C.⁷⁸ In the centre of the trench a similar sequence of hearths exists. Originally the hearths of this building were located in the southeast of rooms 2I-RI → 2H-P → 2G-P. The hearth was then replaced to the northwest of the same building and has been documented in rooms 2G-P → 2F-P → 2E-P → 2D-P (fig. 4.10). The individual hearths in these sequences are often separated by deposits of up to 40 cm of soil. There seems to be no functional reason why these hearths should consistently be in the same corner of successive buildings. Given the lack of a practical reason for the ‘conservative’ locations of hearths at Aşıklı Höyük, I argue that other elements may have determined their position. In particular, it seems that buildings were continuous entities with some form of fixed spatial identity, and that the arrangement of space could not be changed at will.

The central room ‘P’ (or RI in phase 2I) in sounding 4 H/G is of special interest in relation to the topic of non-functional continuity of features (see fig. 4.10). This room measures about 11 m², and seems to have a hearth in all phases of its existence, and it probably is a living room. What I would like to stress here is that this building contained three of the five sub-floor burials found in the deep sounding 4H/G: one burial was found beneath the floor of 2I-RI, and two additional sub-floor burials were found in 2G-P. It is of course impossible to conclude anything from this isolated example, but it is possible that, like the hearths, burials were associated with specific buildings.

From the positioning of the hearths in deep sounding 4H/G it follows that the building continuity cannot be reduced to functional parameters alone, and that we are dealing with more than a foundation technique (Düring 2005a). The question then is why building continuity was important to people at Aşıklı Höyük.

It has often been stated that society in central Anatolia during the Neolithic was fundamentally conservative in outlook, suggesting that continuity in buildings and in other material remains was simply the outcome of an adherence to traditions, and not much reflected upon (G. Duru 2002, 174; Gérard 2002, 106; Özdoğan 2002, 254; Thissen 2002b, 14). In my mind this statement has little explanatory content. Asserting that this cultural horizon was fundamentally conservative begs the question why it was more traditional than other cultural horizons. The answer to that must be that the traditions were of great significance to Prehistoric people (Bradley 2002,

⁷⁷ It could be argued at this point that the buildings under study remained put in their location simply because they were surrounded by other structures on all sides. This idea, however, does not hold true, because many of the buildings in sounding 4H/G at Aşıklı Höyük (see fig. 4.10), were in fact adjacent to open spaces and could easily have expanded or shrunk according to the needs of the moment, but instead remained identical.

⁷⁸ These designations list the stratigraphical phase, followed by the space designation used by the excavator.

11). In short, labelling a society as conservative does not answer the question why the people under consideration were conservative.

One alternative interpretation has been put forward by Hodder (1998a). Impressed by the massive evidence of the rebuilding of structures in deep sounding 4H/G at that site, he considered the option that the historical dimension of these buildings might have been of great importance in the constitution of society at both Aşıklı Höyük and Çatalhöyük. Reflecting on the building continuity he wrote:

“People came to be bound between walls, metaphorically domesticated as they also had to become practically domesticated. The walls at Aşıklı and Çatal had to remain the same because it was the historical associations of those bound within them that created a group continuous through time.” (1998a, 89).

Unlike the label ‘conservative’, this idea has the potential to explain why building continuity could have been important to the people at Aşıklı Höyük: buildings may have been tied up with the identities of their inhabitants. However, the proposition is too general to be meaningful. In order to be more convincing, the argument that the building continuity was of importance to Neolithic society needs to address how and why that building continuity could have been of importance to people in their daily lives. In a recent study I have demonstrated that the ways in which building continuity may have been important at Aşıklı Höyük and Çatalhöyük differed in many respects (Düring 2005a). Whereas at Çatalhöyük some buildings increase in status over time and end up having a ritual significance for a group of people beyond the individual household (see chapter 6), at Aşıklı Höyük the main feature of the buildings in diachronic perspective is a lack of development. The focus seems to be on preserving the spatial organisation of the built environment, even when there are no functionally determining reasons to do so. The main concern seems to have been to keep buildings as they were. It could thus be argued that these buildings lack a biography, in that they did not change over time. In this manner, history, as a trajectory of changes in sequence, was effectively denied.

One of the central questions when dealing with building continuity over long periods of time must be whether the people living at Aşıklı Höyük were aware of this, like the archaeologists excavating these building remains. If such an historical awareness existed, buildings may have been conceptualised as continuous buildings-in-sequence, and individual building phases may have been seen as incarnations of a pre-existing structure. Alternatively, the building continuity could be seen as an outcome of a series of episodes in which buildings were constructed along the lines of their direct predecessors, a practice in which the builders need not have been aware of the numerous earlier structures below.

Given that buildings do not show any evidence of development over time we cannot prove that the people at Aşıklı Höyük actually were aware of, or cared about, the history of the structures they occupied. It is equally possible that each building was a faithful reproduction of its direct predecessor. However, given that the individual buildings probably did not last longer than 30 to 60 years, it seems likely that at least some of the older people at the site were aware of longer sequences of buildings. If that argument is accepted, it may be that by connecting the past to the present the existing social order was legitimised at Aşıklı Höyük (Bradley 2002, 11-2; Van Dyke 2003, 188; Lucas 2005, 62-4). It seems plausible that both building continuity and building identity held some kind of meaning at Aşıklı Höyük, and that there was a deliberate effort towards reproducing buildings as they had been before.

How can we interpret this attitude in which buildings were reproduced faithfully over hundreds of years without much change? One model that may be informative is that of Lévi-Strauss (1973, 39-42), who has distinguished a class of societies in which people see the past as immutable. He drew a distinction between ‘hot’ and ‘cold’ societies, in which the former embrace change as an essential part of their identity, whereas the latter reject change ideologically and relate

the present to a changeless originary past through myth.⁷⁹ For my purposes, it is not necessary to accept Lévi-Strauss's classification of hot and cold societies, and all that such a classification entails. The notion that an immutable past may be important in the constitution of society could be relevant for Aşıklı Höyük, however. An example of such a view of the past is described by Bloch in a study dealing with the official history of the Zafimaniry⁸⁰ that takes on a particular form, called 'tantara', in which:

"events are reduced to exemplary tales where the moral structure of society win against the requirements of transmitting information. Tantara does not abolish time but in it the passage of time is not cumulative, it does not lead to a succession of unique events, rather in the Tantara the past is seen as precedent." (Bloch 1998b, 108).

Such a relation to an immutable past could explain why at Aşıklı Höyük buildings remained the same over long periods of time. What it does not elucidate is in what manner specific buildings were important to specific people. I would suggest that the relation between buildings and people was probably not established at the household level. If that were the case we would expect dynamic cycles of waxing and waning of each individual building along with the prosperity and decline of the household group inhabiting it. Instead buildings remain almost the same over the course of several centuries. Given these characteristics the buildings of the Central Anatolian Neolithic may have been used in other ways.

One model that might explain this phenomenon is provided by Lane (1994) in a study of the Dogon (Mali), where a person will generally move from one building to the next over the course of his or her life (§2.4.3). The buildings are corporately owned by a lineage, rather than owned by specific household groups. In such a system there is no need to modify or change individual buildings. Instead, the specific uses of buildings may have been tied up with their form and inventories, and may have reinforced the status of their inhabitants. Furthermore, this model ties in well with the fact that spatially discrete households cannot be distinguished in the Aşıklı Höyük neighbourhoods, suggesting that families may have been spatially dispersed across several rooms. These rooms may have been assigned to specific people or groups of people on the basis of their changing needs.

In conclusion, the diachronic evidence from the deep sounding 4H/G shows a remarkable degree of building continuity, in which individual building can be traced over up to eight reconstructions and over hundreds of years. Although this continuity is partially related to the way in which these building were founded, the foundation practices alone do not suffice to explain the extreme adherence to a particular locality, dimensions and orientation of a building, as was demonstrated by the inertia of hearth placements. It seems clear that the reproduction of buildings was important for other reasons as well. The fact that buildings do not change over time may suggest that people at Aşıklı Höyük had a view of the past as a precedent for the present. Further, it seems clear that these buildings were not linked directly to individual households, because they lack the kind of waxing and waning related to the dynamics of changing household size and fortune. Rather, it seems more likely that buildings were distributed amongst the members of a larger social collectivity according to the changing needs and demands of its members. It is to these larger social collectivities that we now turn.

4.7.1 NEIGHBOURHOODS

Identifying neighbourhoods at Aşıklı Höyük is a difficult exercise, and the results that can be obtained are at best tentative. It has already been mentioned that the plans published by Esin

⁷⁹ By contrast Le Roy Ladurie's 'motionless history' deals not so much with how people see the past but with a persistence of a certain societal and economic configurations over long periods of time (1977, 132-4).

⁸⁰ Bloch stresses that apart from this 'official history' there are also other types of knowledge of the past amongst the Zafimaniry, that correspond more closely to our view of history as a series of causally linked events (1998b).

represent the buildings found after removal of layer 1 (the disturbed uppermost deposits in or just below the topsoil), rather than a single contemporary phase of occupation (§4.1.3). This has considerable implications for the manner in which the plan can be interpreted. The published plan constitutes a conflation of occupation remains from different periods.

In particular, buildings do not seem to match with the surrounding architecture in four areas (see fig. 4.1). First of all, the buildings in trench 2J/K on the eroded slopes of the mound do not match with buildings further to the east. Second, the structures excavated in trench 4L/M cannot be matched to those of the surrounding trenches. Third, in similar fashion, the structures located to the south of street GA in trench 5N/O cannot be connected to those of the surrounding areas. Finally, the buildings in trench 8N/O cannot be linked to those in adjacent square 7N/O.

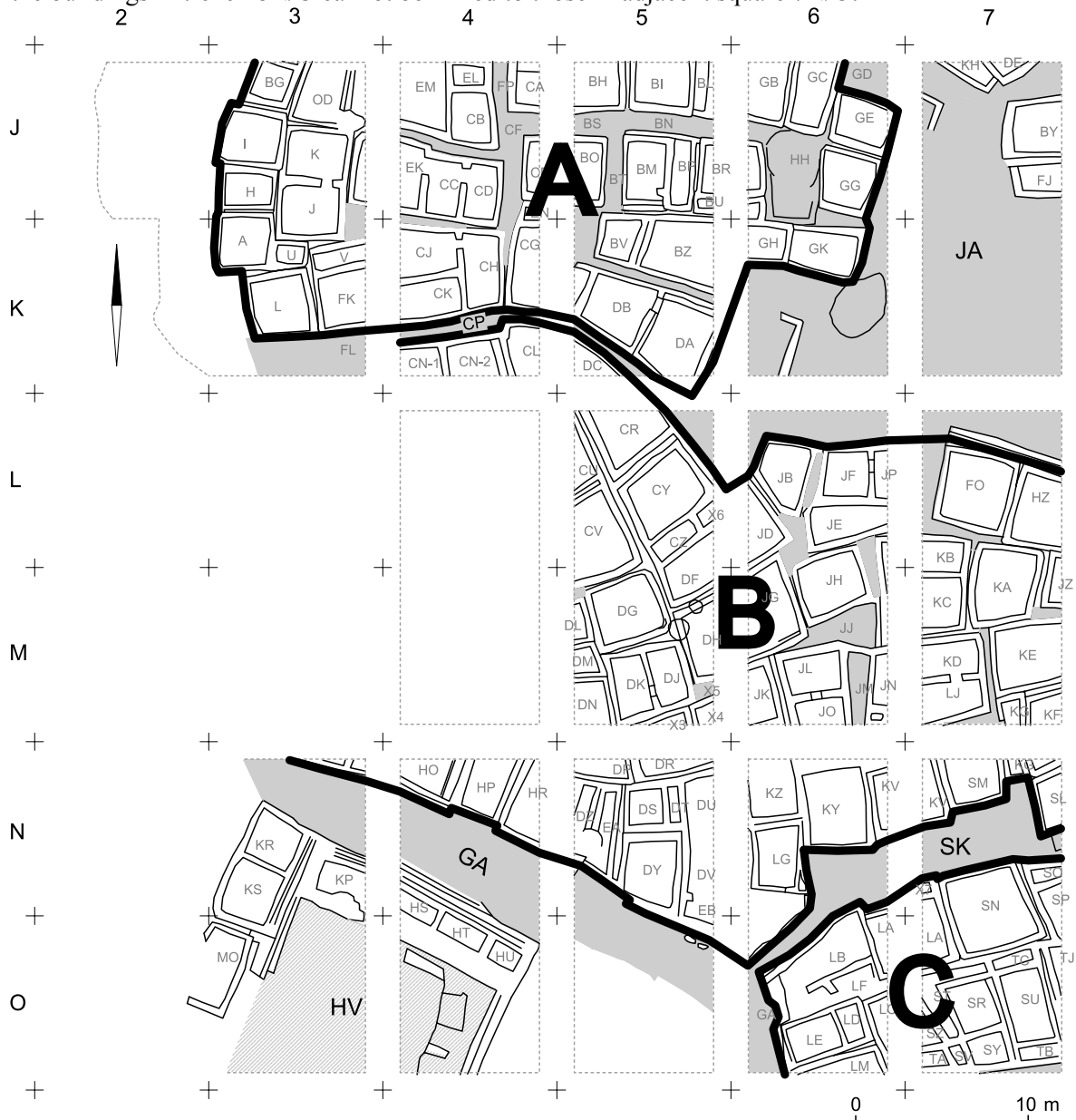


Figure 4.10: Tentative neighbourhoods in the main excavation area of the Aşıklı Höyük layer 2A-C settlement (buildings that are clearly not in phase have been removed from the plan).

Apart from trenches in which the building remains do not match up with those in the neighbouring trenches, there are also areas where the state of preservation of the building remains does not permit analysis, or which cannot be connected with the rest of the settlement due to the fact that they are located at some distance from the main excavation area. Examples of such areas are trenches 13R/S and 12L/M.

By filtering out the evidence from trenches that seem to be clearly out of phase, incompletely preserved, or located away from the main excavation area, we can arrive at a settlement plan that seems more coherent (see fig. 4.10). This modified plan is not a representation of a building phase at Aşıklı Höyük. Considering the dynamic nature of loam buildings and the constant process of change taking place in loam built settlements, this would be difficult to achieve even with a detailed database. However, it is possible to view figure 4.10 as an approximation of what the settlement might have looked like at a particular moment in time, because the buildings in the settlement waxed and waned according to a rigid set of principles, and buildings often replicated their predecessors. In a sense we can draw an analogy with the syntactic rules of language, which determine the possible forms and positions of words in a sentence. By the same token correct sentences can be distinguished from defective ones. In a similar sense the plan in figure 4.10 makes sense, and is thus informative on the structuring principles of building practices at Aşıklı Höyük. It is these structuring principles that are the focus of research in this thesis, rather than the actual practices that derived from them (§3.5.1).

On the basis of such a model the evidence from Aşıklı Höyük provides us with opportunities that are extremely rare in the study of the Near Eastern Neolithic. It is one of the few sites of this period for which we can attempt the reconstruction of neighbourhoods. The primary condition that enables us to recognise the boundaries of such groups of buildings is the availability of large exposures. Furthermore, there are some additional characteristics at Aşıklı Höyük that allow us to distinguish the neighbourhoods from one another.

First, there are streets and alleys that separate blocks of buildings, and thus demarcate the 'neighbourhoods'. The clearest examples of such streets that organise the settlement are streets GA and CP (see fig. 4.10). Apart from such primary streets separating the neighbourhoods, there are also some secondary streets that originate from the large midden area JA, and are mostly dead-end alleys. These alleys do not separate blocks of buildings. There is a clear difference between a wide and straight street such as GA, and a narrow winding street such as CP (§4.10.2), but both type of streets do seem to separate blocks of buildings.

Second, the interface between the neighbourhoods and the streets forms a closed façade with a clear alignment. In some areas this façade is straight, for instance along street GA, but in other places it is curved, as is the case with street CP. The presence of such façades allows us to define possible former edges of neighbourhoods that were subsequently expanded. Interestingly this closed façade is not found along the edge of the large midden JA, from where many secondary streets can be accessed.

Third, the 'cores' of the neighbourhoods are characterised by a much looser usage of space, with open spaces and alleys in between buildings that are generally unconnected to the street system. This characteristic sheds some light on the genesis of neighbourhoods that seem to have been constructed as a closed outer ring first. At a later stage the core of the neighbourhood was gradually developed, but in a more haphazard manner than the outer ring. One element to support this reconstruction is the fact that the streets between neighbourhoods have been shown to remain in the same location during a series of stratigraphic phases, suggesting that neighbourhood boundaries became fixed early in the development of the Aşıklı Höyük settlement (Esin and Harmankaya 1999, 124).

On the basis of these criteria three neighbourhoods can be tentatively distinguished at Aşıklı Höyük, designated as A, B and C on figure 4.10. I will briefly proceed to discuss these three

neighbourhoods.⁸¹ By far the clearest example of a possible neighbourhood at Aşıklı Höyük can be found in the centre of the excavated area, located in between streets GA and SK to the south, and alley CP and midden JA to the north. The western edge of this neighbourhood 'B' cannot be determined due to erosion of the settlement in this part of the site, whereas in the east more excavation and analysis of the stratigraphy would be required to determine the edge of the neighbourhood in this direction. Of course it is possible that no definite edges of neighbourhood B existed either to the east or west, but the continuous facades of this neighbourhood in the north and south suggest otherwise.

What is of special interest with regard to this neighbourhood is a more or less continuous façade running in a north south direction through this block of buildings, following the outer walls of rooms CY, JK, KZ, and LG, but broken by rooms JD and JG that protrude outwards from this curving façade. It seems likely that this line constitutes the remnant of a former edge of this neighbourhood, when it was smaller, and that the eastern section of this neighbourhood was attached later on. This argument seems to be reinforced by the fact that the fabric of the buildings in this eastern area is much more open and it has a less pronounced orientation and organization of space. Like in the older part of the neighbourhood to the west, the buildings in this group form a solid outer ring of buildings (see for example the façade between rooms JB and JF in trench 6H).

In the northwestern part of the settlement another substantial neighbourhood can be recognised ('A' on fig. 4.10). This northwestern cluster has a clear southern edge, where rooms L, FK, CK, CH, CG, DB, and DA form an uninterrupted lining of street CP. The western boundary is less clearly determinable, but may have been along the edge of rooms L, A, H, I, and BG. The eastern boundary of the neighbourhood has a more open character, with two small alleys that run into the large open midden area JA.

A third group of buildings ('C' on fig. 4.10) that may constitute a neighbourhood is found to the east of street GA, and south of street SK. The definition of this group of buildings to the south and east cannot be traced due to the limits of the excavations and stratigraphical problems in relating trenches 7N/O and 8N/O.

The characteristics of these three neighbourhoods, insofar as they have been exposed and preserved, are summarised in table 4.6. Due to the partial exposure of the neighbourhoods it is difficult to describe a 'typical' Aşıklı Höyük neighbourhood, assuming that such a standard group of buildings existed. The data given in the table are minimum figures, and have little value beyond the fact that they can give us a general idea of the scale of the neighbourhoods. The incompletely exposed neighbourhood B contains up to 60 rooms and has been only partially exposed. If we draw a minimal boundary surrounding the cluster, assuming similar building densities as in the documented parts of the neighbourhood, it could be hypothesised that the original neighbourhood comprised some 90 rooms. Given that living rooms comprise some 30 to 40 % of the rooms in total (§4.4.2), such a neighbourhood would contain some 27 to 36 living rooms.

Neighbourhood	N of rooms (min)	Area (m ²)	Rooms with hearths
A	41	546	15
B	58	1073	15
C	21	173	3

Table 4.6: Characteristics of the tentative neighbourhoods of Aşıklı Höyük (incompletely excavated and/or preserved).

At this point two problematic questions have to be dealt with. The first concerns the question how many people would have occupied a neighbourhood such as 'B'. Second I will explore how

⁸¹ The excavators of Aşıklı Höyük have distinguished blocks of buildings that they designated as 'insulae' in a preliminary report (Esin *et al.* 1991, 129). These are smaller entities than the neighbourhoods of this study, and have not been borne out in the course of the larger exposures obtained in later excavation seasons.

many neighbourhoods could have been in use at Aşıklı Höyük simultaneously. The answers are by default of a hypothetical nature, but they are nonetheless important for obtaining an idea of the way in which the Aşıklı Höyük settlement functioned.

The population living in a neighbourhood will simply be calculated by taking the number of living rooms as a measure of the number of households that would have lived in such a neighbourhood. Given the small size of about 9 m² of these living rooms it not considered likely that these rooms served extended families. Thus we can suggest that the living rooms may have been used by core families, which would probably have encompassed some 4 to 5 people (Netting 1982; Kolb 1985; Netting 1990, 42). Given the number of living rooms, a simple calculation would result in a figure of 108 – 180 people living in neighbourhood B.⁸²

4.8.1 ESTIMATING THE AŞIKLI HÖYÜK POPULATION

How many neighbourhoods of approximately that size could have existed at Aşıklı Höyük? The site measures about 35,000 to 40,000 m² (Esin *et al.* 1991, 126). From the approximately 3800 m² (about 10 %) of which we have a reliable understanding it would appear that about 58 % is occupied by neighbourhood clusters (including both buildings and interspersed open areas), 17 % is taken up by the large non-domestic complexes, and the remaining 25 % is used for open spaces such as midden areas, alleys, and streets.⁸³ If the same ratio holds true for the settlement as a whole, then about 22,000 m² would be occupied by clustered neighbourhoods. Assuming that the 1073 m² of neighbourhood B is representative of a typical neighbourhood cluster this would equal about 20 clustered neighbourhoods. However, the assumption that all of the Aşıklı Höyük site would have been occupied at any one point in time is problematic. I would suggest that even at the time when the settlement was most densely populated, between 25 and 50 % of the site would probably not have been occupied. Thus the actual number of neighbourhoods may have been between 15 and 10, and the total population may have peaked at between 2700 to 1080 people.⁸⁴ This calculation is highly speculative, but it does suggest that the Aşıklı Höyük settlement could have been home to hundreds of people at any one time.

The size of this population is of interest from a cross-cultural perspective. It has been suggested in a variety of studies that groups numbering larger than 500 people require extra facilities that serve to integrate the community as a whole (Forge 1972; Kosse 1990, 298; Dunbar 1992; Bintliff 1999).⁸⁵ This hypothesis will be more closely considered in chapter 9, but here it is noted that the posited large community size of Aşıklı Höyük could be one element towards understanding the role of the large monumental complexes at the site to which we now turn.

4.9.1 THE BUILDING COMPLEXES

Amongst the most enigmatic buildings found at Aşıklı Höyük are what I label 'building complexes'. These consist of large units that diverge in many respects from the domestic loam buildings found at the site. First of all, there is great difference in terms of dimensions. For instance, complex HV is at least 20 times larger than the largest loam buildings, which measure about 25 m² (see table 4.7). Second, the building complexes contain a multitude of rooms, whereas no more than three rooms are present in the multiple room units in the clustered neighbourhoods.

⁸² 108 (= 27 living rooms with 4 people each), 180 (= 36 living rooms, with 5 people each).

⁸³ This 3800 m² can be divided as follows: 2200 m² for neighbourhood clusters, 650 m² for complexes, 700 m² for large midden areas, and 250 m² for streets and alleys.

⁸⁴ 2700 (= 15 neighbourhoods of 180 people), 1080 (= 10 neighbourhoods of 108 people). Note that if neighbourhoods are considered to be more variable than suggested here (some smaller and others larger than neighbourhood B), this does not affect the population total of the site arrived at here.

⁸⁵ Other issues relating to the size of the local community, such as whether large populations are more hierarchically organised or more endogamous, will be discussed in chapter 9.

Complex	Number of spaces		Size (m ²)	
	Min.	Max.	Min.	Max.
HV	5	18	271.5	469.8
MI	10	17	82.8	197.3

Table 4.7: The dimensions of the building complexes of Aşıklı Höyük.

Third, the complexes encompass elaborate and large internal courts, which are not found in other buildings. Fourth, a series of distinct building techniques and materials were used in these complexes, which differentiate them from the ordinary buildings. The walls of these complexes are much more massive than usual, measuring up to 1.5 metres in width as opposed to the usual 35 centimetres. For the construction of some of these walls, stones, rather than loam slabs, were used. In other instances loam walls are constructed with up to six parallel rows of slabs. In some cases two massive walls were built no more than a metre apart, with a series of narrow rooms in between.⁸⁶ Other elements that are documented in complex HV, but not in other parts of the settlement are the posts in court HV and in court T, and the elaborate painted floors in court T (see below). The only large oven found at Aşıklı Höyük was found in room HG-3L, a space that is part of complex HV.

The clearest example of a building complex at Aşıklı Höyük is that surrounding courts HV and T (see fig. 4.11). This complex is located in the southwestern part of the excavations due south of the wide and paved street GA. This street differentiates the clustered neighbourhood to the north clearly from this complex, and this may have been one reason why GA differs from other streets at the site that are more narrow and winding.

It has been reported that prior to the construction of street GA older buildings located in its course were removed, and that GA was contemporary with the buildings to the south, whereas the building north of GA are slightly later in date (Esin *et al.* 1991, 128). If this is true this would imply that street GA and complex HV were built as part of the same redevelopment of this part of the site. More recently it has been stated, however, that street GA was in use throughout the occupation of the site (Esin and Harmankaya 1999, 124).

The northern part of complex HV, which borders on street GA, consists of two monumental walls. The first is a thick loam wall built of parallel rows of up to six loam slabs. Some 110 centimetres south of this wall runs a second wall built of stone, which measures up to 140 centimetres in diameter. In between these two massive walls there are a number of small spaces (KP, HS, HT and HU) the nature of which is uncertain. Given that these spaces are about a metre in width, and do not seem to have been accessible via doors, it is possible that they served as cellars of some sort. It has been suggested that the double wall carried an upper storey (Esin 1993, 135).⁸⁷

⁸⁶ These double walls have been labelled ‘casemate walls’ (Esin 1993), but this interpretation is problematic. Esin suggested a culture-historical link between the north wall of complex HV at Aşıklı Höyük and the casemate walls of the Hittite capital Hattuša. This interpretation can be discounted on the basis of two arguments. First, there are no examples of this ‘tradition’ in the periods intervening between the end of the Aşıklı Höyük occupation (at ca. 7400 Cal. BC) and the Hittite Period (ca. 2000 – 1200 Cal. BC). Second, there are many differences in the construction of the walls from both periods, and the manner in which they functioned. In particular, there is no evidence that the wall north of HV served a defensive purpose: the (relatively soft) loam wall faces outwards to street GA, whereas the (more durable) stone walls face the internal court HV. In light of such considerations it seems highly unlikely that we are dealing with a ‘casemate’ wall in the normal definition of the word.

⁸⁷ Note that complex is located down slope at Aşıklı Höyük and does not visually dominate the appearance of the site.

South of the double wall there is the large courtyard HV that measures some thirteen by twelve metres (surface is approximately 171 m²), which is the main component of this complex. This court differs from the large open midden spaces such as JA. It is paved with loam slabs and has a series of stone post bases at regular distances along the edge of the court, which could suggest some sort of colonnade (Esin 1996, 37, fig. 12).

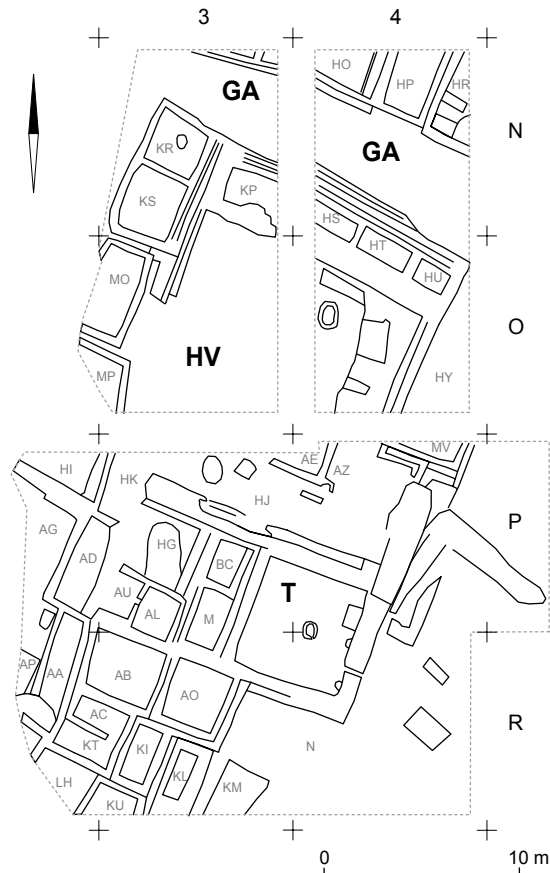


Figure 4.11: Close up of building complex HV.

To the northeast the complex seems to be delineated by a double wall that separates it from open space HY. The courtyard is further surrounded to the west and southwest by a series of rooms, that may or may not be directly associated with it: it is not clear whether spaces KR, K, and S to the west, and HG, AU, AL, BC, M, AB, and AO to the southwest, are part of complex HV. Some of these rooms may predate the complex.

This problem is of particular interest in relation to another open court, T, which is located directly southeast of HV, and is separated from it by a wall. Like HV this court is more or less rectangular, although much smaller, measuring some 5.50 metre by 5.50 metre (surface is 31 m²), and has an elaborate floor. This floor was made of a six to eight centimetres thick layer of ground tuff. This material was dissolved in water and subsequently polished. Several layers of paint were applied to this floor, including one yellow layer and four layers of red paint (Esin 1991, 7; 1993, 126; Esin and Harmankaya 1999, 124). Another remarkable feature of court T is a large round

hearth, of a type not found elsewhere in the settlement, low benches, and post stands.⁸⁸ Following Esin (1996, 37; Esin and Harmankaya 1999, 124), it is possible to see court T as being part of the same complex as HV.

Apart from the stone walls that were part of complex HV, additional stone walls have been found in the northeast of the excavation area at Aşıklı Höyük (see fig 4.12). These walls have been interpreted by Esin (1996, 36) as evidence for a perimeter wall surrounding the settlement. This interpretation seems rather hypothetical. The stretch of wall excavated is short and isolated, and does not form a clear and coherent defensive line. Esin envisages ‘S-shaped’ curvatures in this defensive wall (1996, 36).



Figure 4.12: Building complex MI and the surrounding area.

⁸⁸ The elaborate red painted floor of court T, the round hearth, the low benches, and the post stands are paralleled at the site of Musular, located on the opposite bank of the river. This site has been interpreted as a ritual satellite of Aşıklı Höyük on that basis (Özbaşaran 1999, 149-50; Özbaşaran 2000, 135).

On closer inspection it appears that the building remains in this part of the site are in many ways similar to those of complex HV. There is a wide pebble paved street (MH), south of which there are a series of thick stone walls, and a large courtyard (MI), surrounded by a series of small rooms with a double wall to the east, consisting of a stone wall and loam wall approximately 1.40 metres apart. Additionally, the central court MI seems to have been paved with stones, and measures about 5.20 metres by 3.90 metres (surface 20 m²). Many of the walls of the side rooms seem to have been painted red, a feature also found in some of the ante rooms of complex HV (Esin 1998b, 221).

In sum, I would argue that court MI and the rooms surrounding it probably constitute a building complex similar to that of HV, albeit smaller in scale. This complex consists of the rooms around space MI, such as LZ, MA, MC, MD, MM, ML, ON, RE, and RF. It is also possible that space NO was connected to this complex. We should bear in mind that the plan of this part of the settlement most likely represents a conflation of different building phases, given the lack of coherence apparent from figure 4.12.

A series of characteristics link the architecture in this area to that of the complex surrounding court HV. These include: a large central space around which smaller spaces are organised; the use of massive stone walls; and the constructions of parallel outer walls with a relatively narrow space in between. However, it is evident that this northeastern building complex is not as elaborate as that of court HV: the walls seem to have been less well built; and the central court is much smaller.

The characteristics of the two complexes can be summarised as follows (see table 4.7). The number of spaces (including both rooms and courts) that can be assigned to complex HV ranges between 5 and 18 depending on how the plan is interpreted. The size of the complex (including the walls) similarly ranges between 270 and 470 m². In the case of complex MI the number of rooms is somewhere between 10 and 17, and the size of the complex varies between 80 and 200 m². From these figures it is apparent that, notwithstanding how these complexes are defined, they constituted a markedly distinct type of building in the Aşıklı Höyük settlement.

How can we interpret these building complexes? What purpose did they serve? A first matter that is apparent is that these buildings are clearly differentiated from the domestic loam buildings in the clustered neighbourhoods⁸⁹, and it is reasonable to suggest that they served very different purposes. Next, these complexes were not incorporated into the clustered neighbourhoods, but are set apart from them. This spatial arrangement suggests that these complexes may have served several neighbourhood clusters or even the local community at large.

The issue whether different complexes were in use contemporaneously or may have been in use at different periods is of considerable interest in relation to how we interpret these structures, but this matter cannot be solved without further analysis of the Aşıklı Höyük stratigraphy.⁹⁰ What is clear is that the central courtyards HV, T, and MI vary considerably in their dimensions (see table 4.8).

On the basis of these dimensions we can make an estimate of the size of the gatherings that these courts could have accommodated (see table 4.8). While the estimates in table 4.8 are entirely speculative they do give us a first indication of the scale of activities that could have taken place in the monumental building complexes at Aşıklı Höyük. What is clear from these estimates is that court HV is the only space that could have accommodated gatherings including several hundreds of people. Given that the estimated population of Aşıklı Höyük ran into the thousands, it is clear that only part of the population could have used the building at a particular point in time.

⁸⁹ Verhoeven (2002a; 2002c) labels this type of differentiation 'ritual framing'.

⁹⁰ Neither can we exclude the possibility that other similar complexes are present in the unexcavated parts of the site.

Court	Size in m ²	Estimated size of gatherings A ⁹¹	Estimated size of gatherings B ⁹²
HV	171	85 – 340	100
T	31	15 – 60	44
MI	20	10 - 40	28

Table 4.8: Estimated size of the postulated gatherings in Aşıklı Höyük monumental courts (A= standing, B= seated in circular arrangement).

The other courts could have held much smaller congregations and must have been in use by circumscribed groups for particular purposes, the nature of which can only be guessed. This type of restricted monumental space is well known in the PPN-B of the Fertile Crescent at sites such as Çayönü, Nevalı Çori, Jerf el Ahmar, Beidha and Ain Ghazal. It has been suggested that the activities taking place in these buildings were performed by some sort of elite that may have consisted of the representatives of social groups (Hole 2000, 205; Verhoeven 2002a, 245-8). Alternatively different groups could have used these courts at different times.

It is plausible that formal gatherings of people from different neighbourhood clusters took place in these courts. The scale of such gatherings may have been more substantial in court HV than in courts T and MI, but otherwise there do not seem to be many differences. From the fact that the courts are surrounded on all sides by walls and rooms it could be concluded that there was an effort to restrict or control the participation in the activities taking place in these localities. The postulated gatherings that might have taken place in the courts would have been of great significance to the people at Aşıklı Höyük. The argument that such gatherings served to constitute the local community may be correct, but it does not elucidate why these occasions were important for people.⁹³ For that we would have to turn to the specific content of the activities and how these were important for people at Aşıklı Höyük.

A variety of hypotheses may be put forward with regard to the nature of the building complexes of Aşıklı Höyük. These include a function as public building that may have served as a ritual nexus for the community, a men's house, and a place devoted to initiation rituals. An analogy could be drawn with public buildings in the PPN-B of southeastern Anatolia, in particular with those of Nevalı Çori and Çayönü (Schirmer 1983; Hauptmann 1993; 1999; A. Özdoğan 1999),⁹⁴ which are also part of a settlement, and can be dated to more or less the same time period (Esin 1998a, 97).⁹⁵ In those public buildings a wealth of stone sculptures, sacrificial slabs, and human remains were found, pointing to a series of ritual activities taking place in these buildings. By contrast, at Aşıklı Höyük these types of features are completely absent in the building complexes. Nothing much can be concluded from the absence of such features, apart from the fact that we are

⁹¹ Assuming that people were standing rather than sitting in these spaces we could postulate a minimum of about 1 person per 2m², for instance allowing for the fact that people may have performed dances, and a maximum of 2 people per m², which would be possible if they would have been standing silently for instance while singing (*cf.* Verhoeven 2002a, note 21).

⁹² Assuming that people were sitting in a circular arrangement, as could be argued for court T, where low benches were found, or for court HV, that seems to have had some sort of colonnade, with 50 centimetres seating space per person (*cf.* Hole 2000, 205; Verhoeven 2002a, note 21).

⁹³ It is precisely this kind of functionalist view of society that has come under attack by Bourdieu (1977), and was at the basis of the formulation of structuration theory.

⁹⁴ It would be less appropriate to use Göbekli Tepe as an analogy, because that seems to be a non-residential site (Schmidt 1998), and thus would not have been a place where a sedentary local community came together.

⁹⁵ It has been argued by Özdoğan and Özdoğan that monumental non-domestic buildings existed only in the Neolithic of the Fertile Crescent, but not in Central Anatolia, where according to Özdoğan ritual took place in domestic buildings (Özdoğan and Özdoğan 1998; Özdoğan 2002). However, it seems to me that this opposition is too generalising, because the complexes at Aşıklı Höyük are clearly examples of monumental non-domestic buildings.

left without evidence that could inform us on the nature of the activities taking place in the courts. Without contextual evidence there is little basis for reconstructing what took place in these courts.

One final point I want to stress is that the monumental complexes at Aşıklı Höyük, and their poorly preserved counterparts at Musular, are at present unique in the Central Anatolian Neolithic. The excavations of other Central Anatolian Neolithic sites, such as Canhasan III, Çatalhöyük, Canhasan I and Erbaba, have not uncovered similar monumental non-domestic buildings. It could be argued that this is simply an artefact of different excavation methods practiced at these sites. The scale of excavations at Aşıklı Höyük is beyond that of any of the other sites. If Aşıklı Höyük had been explored on a smaller scale, complex HV might not have been found. Neither would there have been any clues that such a building existed on the basis of the evidence in the domestic neighbourhoods. The pertinent question then is: it is reasonable to assume that non-domestic building complexes could also have existed at the other sites?

It cannot be excluded that, in the future, similar building complexes will be found at other Central Anatolian Neolithic sites. Even if such buildings are not found we should keep in mind that they could have been placed at some distance from the settlements, a configuration that has been argued for the relation between Musular and Aşıklı Höyük, with the former serving as a ritual satellite site of the latter (Özbaşaran 1999, 149-50; 2000, 135). In chapter 6, which deals with Çatalhöyük, I will argue that the relation of domestic and ritual activities was organised in a manner that is completely different from that of Aşıklı Höyük. This means that if communal buildings existed at Çatalhöyük their functions would probably have differed from those at Aşıklı Höyük.

4.10.1 THE SPATIAL CONFIGURATION OF THE AŞIKLI HÖYÜK SETTLEMENT

In the preceding sections I have discussed two of the constituent components of the Aşıklı Höyük settlements: the clustered neighbourhoods and the building complexes. In this section the spatial relation between these different components and the role of the streets and midden areas will be considered.

The clustered neighbourhoods and the building complexes are differentiated from each other by streets and open midden areas. Whereas the interfaces with streets and alleys invariably take the form of continuous facades, the interface of the clustered neighbourhoods towards midden areas is more open, with a series of small dead end alleys opening up from the midden into the neighbourhoods.⁹⁶ These different interfaces of midden areas and streets are of significance and will be further explored.

Second, it is apparent that the streets of Aşıklı Höyük vary greatly in their width and elaborateness. On the one hand there are narrow alleys like 'CP' that are less than a metre in width, with a winding course and an earthen surface. On the other hand, there are a number of broader streets, such as GA, with a width of up to 4 metres and a stone pavement. It seems clear that these two types of street served different purposes. These differences will also be explored in the next section.

4.10.2 ACCESS PATTERNS AT AŞIKLI HÖYÜK

In the course of this chapter I have already dealt with a number of issues that affect the feasibility and potential of access analysis at Aşıklı Höyük. This method for spatial analysis, most elaborately formulated in the work of Hillier and Hanson (Hillier *et al.* 1978; Hillier and Hanson 1984; Hanson 1998), has been designed as a tool for the analysis of existing settlements and buildings for which we possess detailed plans that indicate how spaces are accessible. Applying access analysis to archaeological sites such as Aşıklı Höyük has two major drawbacks.

⁹⁶ From the published data it is not entirely clear whether complex HV borders on a midden area to the southeast, but if it does it seems to be differentiated from that midden by a massive stone wall.

The first of these is that archaeological data seldom have the sort of fine-grained resolution that is necessary to draw up a plan of contemporary occupation at any one moment in time. It has been argued that the plan of the settlement at Aşıklı Höyük represents a conflation of occupation remains from different periods. This problem can be addressed to some degree by the method proposed in the previous section: by filtering out building remains that are clearly out of phase, incompletely preserved or located far away from the main excavation area. The resulting plan cannot be considered an accurate representation of the settlement as it existed in any one phase, but rather constitutes an approximation of what the settlement might have looked like. Such a plan is informative on the structuring principles of building practices at Aşıklı Höyük, but is not necessarily an accurate representation of a historical reality. In my view the access patterns in such an 'idealised' plan are nonetheless informative of prehistoric practices at Aşıklı Höyük.

Second, the access analysis developed by Hillier and Hanson requires evidence on complete settlements. That type of evidence is hard to get in archaeology. At Aşıklı Höyük enormous exposures are available by Near Eastern standards, but even these are not very suitable for the type of analysis envisaged in classic access analysis. In order to be useful for archaeology access analysis needs to be adapted to archaeological realities. The most fruitful approach in this respect is to reject global measures, which calculate the characteristics of a particular space as a function of the entire settlement, and adopt local descriptions that measure the relations of a space to its immediate neighbours.

For the purposes of this analysis each bounded space was regarded as a node. The exterior spaces were broken up into a number of units, much in the same way as public spaces are broken up in our own settlements, into streets and courts. Streets and alleys were broken up into distinct units at sharp corners. Subsequently the connections between nodes were mapped.

The method used for Aşıklı Höyük was to differentiate the different kinds of connections between units. Five categories can be distinguished: first, from one open space to the next, without intervening barrier; second, from an open space to an adjacent roof; third, from a walled open space to an open space; fourth, from one room to the next via a door; and, fifth, from one roof to the next. In principle each of these qualitatively different types of connections could be weighed according to how much effort is involved in their use. On that basis it would be possible to calculate which spaces are most difficult to reach from their direct neighbours. In practice, applying access analysis to the plan of Aşıklı Höyük proved extremely difficult. In many areas the baulks between the trenches obscure crucial pieces of evidence. In other areas it is sometimes difficult to determine whether an area was part of a building or an open space. In the process of drawing up an access graph (see fig. 4.13) interpretations of the evidence had to be made, but many of the assessments are impressionistic. Another important problem is that in the method used it is assumed that ladders were positioned everywhere. Such a situation is highly unlikely, and it is not possible to reconstruct where the ladders might have been stationed.⁹⁷ Given these circumstances it was decided not to perform detailed calculations on the access graph, because that would give a false sense of reliability. Nonetheless I believe that figure 4.13 can be used as a visual tool to obtain an insight into the organisation of space at Aşıklı Höyük at a general level.

On the basis of the access graph six distinct categories of spaces can be distinguished. The first category consists of broad and pebble paved streets GA, and MH/PE. These are characterised by the fact that they are strategically located and provide access to a large number of other spaces. However, they also effectively separate the neighbourhoods from each other. Thus, paradoxically, the primary streets are both a channel, at the ground level, and a barrier, at the roof level, for locomotion.

⁹⁷ Moreover, ladder positions may have been dynamic, and may have been altered according to changing needs and preferences of the moment.

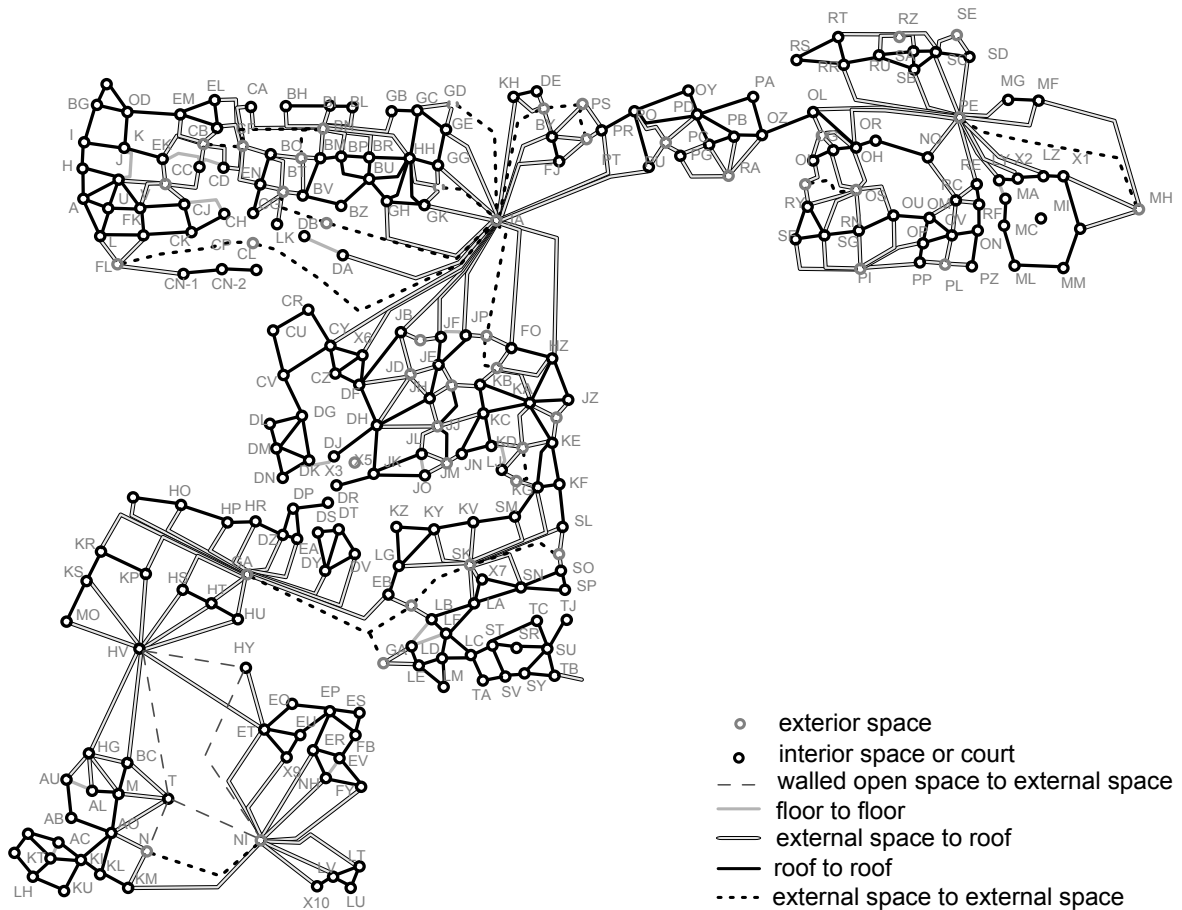


Figure 4.13: Tentative access graph of Aşıklı Höyük.

Second, the manner in which street CP functioned is distinct from that of GA and MH. Unlike the latter two streets, CP is rather narrow, ranging between 80 to 60 centimetres in width. In a settlement without doors this width has an important implication. Given the limited width of CP it seems unlikely to have been a location for ascending to the roofs of houses via ladders. Whatever the precise angle of the ladders that were used, and irrespective whether they were positioned transversely or parallel to the walls, ladders in the narrow alleys would have taken up at least 50 – 40 centimetres of space. In an alley of less than 80 centimetres in width a series of ladders would have effectively blocked its function for manoeuvring.⁹⁸ It may be posited that only in streets wider than a metre could ladders have been positioned (parallel to the wall) without blocking the road. With regard to street CP this meant that it could only have functioned as a thoroughfare rather than as space from which the roofs were ascended. In many ways the secondary streets in neighbourhood A in the north of the excavated area functioned in similar ways as CP. However, these alleys do not separate neighbourhoods and most of them are dead ends. The majority of these spaces radiate from midden area JA, but there are also some running in other directions. Generally

⁹⁸ Roofs would probably have been about 2 ½ metres above street level. A ladder requires an angle of ca. 70-60° (the two clearest examples at Çatalhöyük are approximately 60°, see Mellaart 1963, pl. 16-b; 1967, pl. 4). With an angle of 60° and a height of 2 ½ metres, the base of the ladder would stand about 1.25 metres from the wall. This means that if they were put transversely they would have blocked the entire alley. A position parallel to the walls would be less space consuming, but would still take up nearly half of the streets, that are only 80 centimetres wide in some places.

they tend to be rather short, but they can branch off in several directions. Given that these streets are narrow, often well below a metre in width, it seems plausible that in most cases ladders, if present, would have been positioned at the ends of these alleys.⁹⁹

One issue that should be raised in relation to the narrow and winding nature of alley CP is whether this alley truly differentiates the neighbourhoods at the site. The small winding course of the alley makes it difficult to monitor people moving through this space, unlike the wide streets GA and MH. Ethnographic parallels discussed in chapter two (§2.4.6), suggest that streets such as CP may have been communal rather than public in nature. Furthermore, the narrow width of CP could conceivably have been bridged with wooden boards facilitating communication between buildings north and south of CP. In relation to these two points it could be argued that neighbourhoods A and B (fig. 4.11) did in fact form a single large neighbourhood, or that a distinction of neighbourhoods at Aşıklı Höyük is an arbitrary exercise, and that the settlement was in fact one continuum of buildings except where broken by wide pebble paved streets. On the other hand, the neighbourhoods do have continuous façades along the course of CP, where they could equally well have opened for secondary streets. This suggests that CP was considered to be a clear interface, despite its insubstantial nature.

A third category of spaces in the access configuration of Aşıklı Höyük is constituted by the two large open areas, JA and N/NI. Like the primary streets these serve as points of access to a large number of buildings. In contrast with the primary streets, along which continuous façades can be found, the northern open area JA, which served as a large midden, opens up onto a large number of secondary streets. The southern open area may have functioned in a different manner, but unfortunately the lack of clear evidence in this area precludes a better understanding. In the case of midden area JA it seems clear that this was a crucial nexus in the communications system of the settlement. In addition, a variety of activities, including craftwork, butchering and processing plant foods, took place in this locale (Esin and Harmankaya 1999, 125). It was from this space that roofs were ascended with a ladder, and from which small alleys running into the neighbourhoods were accessed, within which additional ladders would have been placed.

Fourth, there are a number of isolated open spaces interspersed within the clustered neighbourhoods at Aşıklı Höyük. These spaces can only be reached from the surrounding roofs, and tend to be small and irregular in shape. It is safe to assume that most of these spaces functioned primarily as negative spaces in the settlement, at least for communication purposes. Some of these small courts may have functioned as garbage depositories or animal pens, but no data on this subject are available.

Fifth, there are the large courts HV, T, and MI that evidently served a different purpose. These courts do not seem to have been directly accessible from the wide streets on which they are located. The courts occupy a central position relative to a large number of small rooms that surround them. It is possible to interpret courts HV and MI as controlling the access to these spaces.

Finally there are the room spaces of the clustered neighbourhoods. Those that are situated along a primary street of considerable width, or next to a large open area, may have been accessible directly with a ladder, whereas many rooms that were situated in the core of a neighbourhood could only be accessed by crossing one or more adjacent roofs. Given that the neighbourhoods excavated at Aşıklı Höyük are located on a more or less flat area it is probable that the roofscape was also more or less level. This suggests that activities on these roofs could be monitored relatively easily, and this fact would have ensured a certain amount of visual inspection of people's movement on that roofscape. It seems plausible that there were conventions regarding who could move across parts of the roofscape and with how much decorum, depending on one's social distance to the inhabitants of the area.

⁹⁹ In some cases this evaluation cannot be adequately made. For instance it is unclear whether alley CF in trench 4J is a dead end, because its northern boundary remains to be exposed.

The overall organisation of space in the Aşıklı Höyük settlement seems to have been as follows. The access analysis seems to corroborate the view that the essential group of association was not the individual household, but rather a neighbourhood. These neighbourhoods were separated from one another by broad streets and narrow alleys. They were accessed from the broad streets, the large open areas, or from the dead ends of alleys radiating from large open areas. Once the roof level was ascended rooms located in the core could be reached via the roof of adjacent buildings. On this basis it seems that a division can be drawn between a public domain, consisting of wide pebble paved streets and large open spaces, and a communal domain, consisting of the roofscape of the neighbourhoods. The monumental complexes were located in separate parts of the settlements, near the wide pebble paved streets, which again suggest that they served the local community rather than any specific clustered neighbourhood.

Little can be said about the diachronic aspects of the configuration of settlement space at Aşıklı Höyük, although it seems plausible that many of the principles outlined in this section were also of importance in other phases of occupation. I have already discussed the amazing degree of building continuity in sounding 4H/G (§4.6.1), in which buildings are constantly being redeveloped in the same place over the centuries. What is of interest to note is that the midden area in the southeast corner of 4H/G is also consistently located in the same place over the centuries (see Esin and Harmankaya 1999, fig. 8). Finally, it has been asserted that street GA was redeveloped over many phases (Esin and Harmankaya 1999, 124). Taken together, this suggests that it was not just the individual buildings that were continuous at Aşıklı Höyük, but also the midden areas and the streets. We can thus suggest that the organisation of space at the site was in all probability characterised by a large degree of continuity over time.

4.11.1 SOCIAL DIMENSIONS IN THE SETTLEMENT OF AŞIKLI HÖYÜK

On the basis of the analysis in the preceding sections we can draw a tentative outline of the structure of society at Aşıklı Höyük. First of all, we have seen that searching for autonomous households is not fruitful at this site. A brief glance at the settlement plan reveals that there is no clear demarcation from one building to the next, and that some parts of the settlement take on the character of a single large structure rather than a series of discrete units. Although it is possible to distinguish distinct buildings, comprising between one and three rooms, within the neighbourhood cluster, these do not seem to constitute houses. First, the building units at Aşıklı Höyük seem to be too small to have served as household residences, if cross-cultural averages are used as a guide. Second, only half of the building units contained a hearth, which is considered a defining element for a household. It seems that the evidence does not support a reconstruction of households as groups defined by clearly demarcated residences and economically autonomous. Instead we may regard the neighbourhood group as the basic defining element of society.

These neighbourhoods were only partially exposed, but a reasonable estimate of their size would be about 90 rooms. On the basis of the excavated evidence 27 to 36 rooms of these would have contained a hearth. If we base ourselves on ethnographical evidence that links households to hearths (Halpern and Halpern 1972, 16-7; Kramer 1982, 104, 123; Carsten 1987, 156; Horne 1994, 159), this would imply that approximately 30 household groups would have resided in a neighbourhood.

Each of these households would have had an average of about 20 m² of roofed space, including a room with a hearth of some 9 m². The cross-cultural averages of Naroll (1962), Cook and Heizer (1968), and Casselberry (1974) would suggest that a nuclear family could have occupied these spaces, although it has already been argued that such estimates are highly problematic. For the sake of argument we could posit four to five people per household (Netting 1982; Kolb 1985; Netting 1990), which would result in a neighbourhood population of 108 to 180 people.

The point about these neighbourhoods is that the constituent households were closely linked, and constituted a multi-family social collectivity.¹⁰⁰ They shared buildings and lived in crowded conditions. Rooms were probably not owned by any one household group, in which case we would expect these buildings to show more evidence of change related to the shifting fortunes of households. That is the most convincing explanation for the absence of discrete household residences. In such a model the upkeep of buildings was probably a collective enterprise. Given this type of spatial organisation, how did members of a neighbourhood interact with one another, and how did they act towards members of other households?

Apart from Hippy communities, which were generally short-lived experiments (Brown 2002, 165), multi-family collectivities are a rare phenomenon in western society. It is perhaps for this reasons that the autonomous household has been regarded as self-evident by many scholars, and its importance for the Near Eastern Neolithic has been asserted time and again (Flannery 1972a; Hodder 1990; Byrd 1994; 2000; Flannery 2002; Banning 2003, 14). However, a large body of ethnographic literature from a wide range of cultures can be discussed that demonstrates the widespread nature of social groups involving a number of households (§2.4.3). In a recent article it has been argued that in the earlier part of the Central Anatolian Neolithic the household is a constituent element within a larger social collectivity (Düring and Marciniak 2005, see also chapter 9). In chapter two, I have mentioned ethnographic examples where households may be subsumed in larger social collectivities, such as a multi-family residence (§2.4.3), and a corporate neighbourhood (§2.4.6). At Aşıklı Höyük the evidence for such a social configuration seems particularly compelling.

On the basis of the examples mentioned in this section we can suggest a model of how an Aşıklı Höyük neighbourhood might have functioned. We seem to be dealing with a corporate holding consisting of a plot of commonly owned land and rooms. According to the needs of the moment these rooms were distributed among the household groups that constituted the neighbourhoods. An estimated 30 households were bonded in close spatial proximity, and it is reasonable to suggest that this residential pattern was probably reinforced by affinal relations of kinship, which may in part have been fictitious. Through analogy with oriental villages and towns that are organised along similar principles, it can be suggested that access to the alleys leading into the neighbourhoods and onto the roof level of the neighbourhood was in all probability restricted to the local residents. The outer boundaries of the neighbourhoods were emphasised by the construction of an unbroken outer façade, which symbolised the integrity and unity of the neighbourhood.

Given such a model of social organisation, what role did the large building complex HV/T and other similar complexes serve? We have seen that the spatial organisation of the Aşıklı Höyük settlement effectively segmented the population into a number of neighbourhood communities. I propose that in order to bring together these segregated communities, some forms of overarching structures might have played a role. In oriental villages and towns those institutions often consist of the primary mosque, the school, shops, and teahouses. These are accessible to a wider public, and serve the interest of the entire settlement. The behaviour that is appropriate in these spaces is generally of a fundamentally different nature from that in the neighbourhoods. It is plausible to suggest that complex HV/T served similar purposes as the town institutions mentioned. There are no indications for commercial exchange of goods in complex HV/T, but it is likely that gatherings and feasts would have been held there. In this regard it is of some importance that these complexes are situated in their own separate area, and are not integrated into a specific neighbourhood. This circumstance is in accord with an interpretation as a general gathering place, located on neutral terrain.

¹⁰⁰ By multi-family I mean to describe a group of families that live in close proximity spatially, and have close economical and social ties (Barnard and Spencer 1996, 286).

CHAPTER 5: THE CANHASAN III SETTLEMENT

Despite the limited size and nature of the investigations at Canhasan III, and the absence of detailed publications, it is one of the key sites for the study of the Central Anatolian Neolithic settlements, mainly due to the fact that a clear and comprehensive plan was obtained by surface scraping. This plan allows us to gain an insight into the manner in which communication and transport were organised in this Neolithic settlement. Furthermore, through the study of the definition and size distribution of building units, and the way in which the building units were spatially associated, we can find some indications that point to the social organisation of this community.

5.1.1 GEOGRAPHICAL SETTING

The landscape surrounding Canhasan III is a flat plain which receives about 300 mm per year. The assumed natural vegetation for this region is an open steppe with some shrubs (Van Zeist and Bottema 1991, 24-5). Today the region is subjected to intensive irrigation agriculture,¹⁰¹ but for rain fed agriculture this area is marginal, and in the recent past it was used for pastoralism (Hütteroth 1968; Roberts 1990; French 1998, 2).

Canhasan III is a small site measuring ca. 100 metres in diameter, and is about 6.75 metres high (2.25 metre above the level of the present plain). In the recent past there was a small stream called the Selereki in the vicinity of the site, and the site itself was located on the edge of its active river fan (Roberts 1983, 163-5).

5.1.2 RESEARCH HISTORY

The Canhasan III settlement was investigated in 1969 and 1970 by David French on behalf of the British Institute of Archaeology at Ankara. French was mainly interested in the nearby site of Canhasan I, which he was excavating at the time (see chapter 8). The main rationale for investigating Canhasan III was to extend and clarify the regional culture-historical sequence (French *et al.* 1972, 181). For this purpose only a limited amount of funding and resources were available. These circumstances led French to adopt an unconventional excavation strategy that was geared towards obtaining a general picture of the site with minimal resources. The strategy involved a surface scrape of 600 square metres in order to explore the nature of the settlement, and a small trench of ca. 8 m² to investigate the stratigraphy and economy of the site. The excavated deposits were systematically wet-sieved for the retrieval of macro-botanical and faunal remains, a technique pioneered at the site.

Despite the limited scale of these investigations the site has been of considerable importance for the study of the Anatolian Neolithic for three reasons. First, for a number of decades Canhasan III was the only excavated and published Aceramic Neolithic site in Central Anatolia.¹⁰² Second, the pioneering use of systematic wet sieving at the site provided important data on early farming practices that were not available for most of the other early Neolithic sites. Third, a clear and comprehensive plan was obtained in the scrape area, which provided an insight into the settlement form.

¹⁰¹ Unfortunately, the site of Canhasan III too is subjected to intensive agriculture and suffers heavily as a result of ploughing (personal observation July 2003).

¹⁰² The Aceramic Neolithic site of Suberde was excavated by Bordaz in 1964 and 1965. However, both the excavation methodology used, consisting of small unconnected trenches, and the concise nature of the publications (Bordaz 1965; 1966; 1968; 1973), have precluded this project from becoming important in the study of the Aceramic Neolithic of this region.

Notwithstanding the limited scale of the investigations at the site the results of the project remain to be published. Thus far, only short preliminary reports have appeared (French 1970; French *et al.* 1972; Payne 1972; Hillman 1978), as well as an unpublished PhD thesis on the obsidian industries (Ataman 1988).

5.1.3 STRATIGRAPHY AND CHRONOLOGY

In total seven layers were distinguished in the Canhasan excavations. The deposits at the surface, which were explored by the surface scrape, were assigned to layers 1 and 2. In the sounding 49-L, layers 3 and 4 were excavated below these uppermost horizons, with layer 3 subdivided into an early and late phase. Finally, two additional layers, 5 and 6, were distinguished in a core taken from the bottom of trench 49-L (French 1972, 182; Ataman 1988, 21-2).

Sixteen radiocarbon samples have been dated for Canhasan III. They seem to have been taken from deposits that can be assigned to layers 1 to 4, but cannot be more accurately linked to the stratigraphy due to a lack of published information. Calibration of these radiocarbon dates of Canhasan III gives a range of about 7650 to 6600 Cal. BC (one sigma), which dates the site to the end of the Aceramic Neolithic period and the start of the subsequent Early Ceramic Neolithic (Thissen 2002a, 325).

French *et al.* (1972, 181) have assigned the site to the Aceramic Neolithic. The radiocarbon range does not exclude the possibility that the site was occupied in the Ceramic Neolithic, however. A very limited amount of shards was found. Ataman (1988, 24-5) reports that some 100 shards were found at the site, of which 23 were 'handmade' (presumably the others were wheel thrown).¹⁰³ At Early Ceramic Neolithic Çatalhöyük East, where the excavated areas were much larger, only minute amounts of pottery were found in the early levels (Mellaart 1966, 170; Last in prep-a, table 2).

The issue at stake is not whether Canhasan III can or cannot be assigned to the Ceramic Neolithic, given the small numbers of shards this is largely a matter of definition, but whether or not the site was contemporary to the early building levels at Çatalhöyük. It could also be the case that Canhasan III dates to the earlier part of the range of 7600 – 6600 and falls entirely into the Aceramic Neolithic. Unfortunately, at present it is not possible to narrow down the range by selecting the more precise or reliable dates, due to the absence of more detailed information on the nature and derivation of these radiocarbon samples.¹⁰⁴ Thus the precise chronological position of Canhasan III will have to remain obscure until more publications or new excavations shed new light on the occupation of the mound.

5.1.4 ARTEFACTS AND ECOFACTS

Botanical remains consisted of wild einkorn, cultivated einkorn, emmer wheat, bread wheat, club wheat, hulled barley, naked barley, rye, lentil, bitter vetch, common vetch, walnut, hackberry, wild grape, prune amongst others (Hillman in French *et al.* 1972; Hillman 1978). Animal remains consisted of sheep/goat, red deer, roe deer, equid, pig, hare, canids, and possibly cattle (Payne in French *et al.* 1972). Issues concerning animal domestication cannot be assessed due to the small size of the sample. Worked bone included such objects as pins, spatulae, and beads. Chipped stone industries consisted mostly of obsidian finely retouched points similar to those found in Mersin, end-scrapers, flake-scrapers, awls, 'lames écaillées', heavy backed blades and small bladelets with obliquely truncated tips (Payne 1972; Ataman 1988).

¹⁰³ To put these shards in context: over 70,000 pieces of chipped stone were found at Canhasan III (Ataman 1988, 25).

¹⁰⁴ One problem with many of these older radiocarbon dates is that their error margin is much larger than for modern dates, which makes it more difficult to interpret the chronology of sites.

5.2.1 THE CANHASAN III SETTLEMENT

An area of 20 by 30 metres was scraped, and in addition a small trench (of ca. 8 m²) was dug to obtain an idea of the stratigraphy of the mound. Despite the extensive nature of the investigations at Canhasan III, a good exposure was obtained of its architecture, providing a clear insight into the nature of the settlement.

Three distinct components can be distinguished in the Canhasan III settlement. These are: first, large open areas; second, narrow alleys; and third, loam buildings (see fig. 5.1). The clearest examples of open areas are spaces 19 and 36. These are relatively large square spaces measuring over 5 metres in width, and are directly connected to narrow alleys such as spaces 42 and 43. These alleys are long narrow spaces running between the Canhasan III buildings that are less than a metre in width. Finally, the largest part of the Canhasan III settlement is taken up by densely clustered loam buildings, which vary considerably from one another in their respective sizes and the number of rooms they include.

In many respects the settlement is a typical example of the Central Anatolian Neolithic format. It consists of a densely constructed matrix of buildings interspersed with small alleys and courts. The buildings can, for the most part, be clearly distinguished because no party walls were used. In the following sections I will focus on the loam buildings found in the surface scrape, and in a later part of this chapter the overall organisation of the settlement will be discussed.

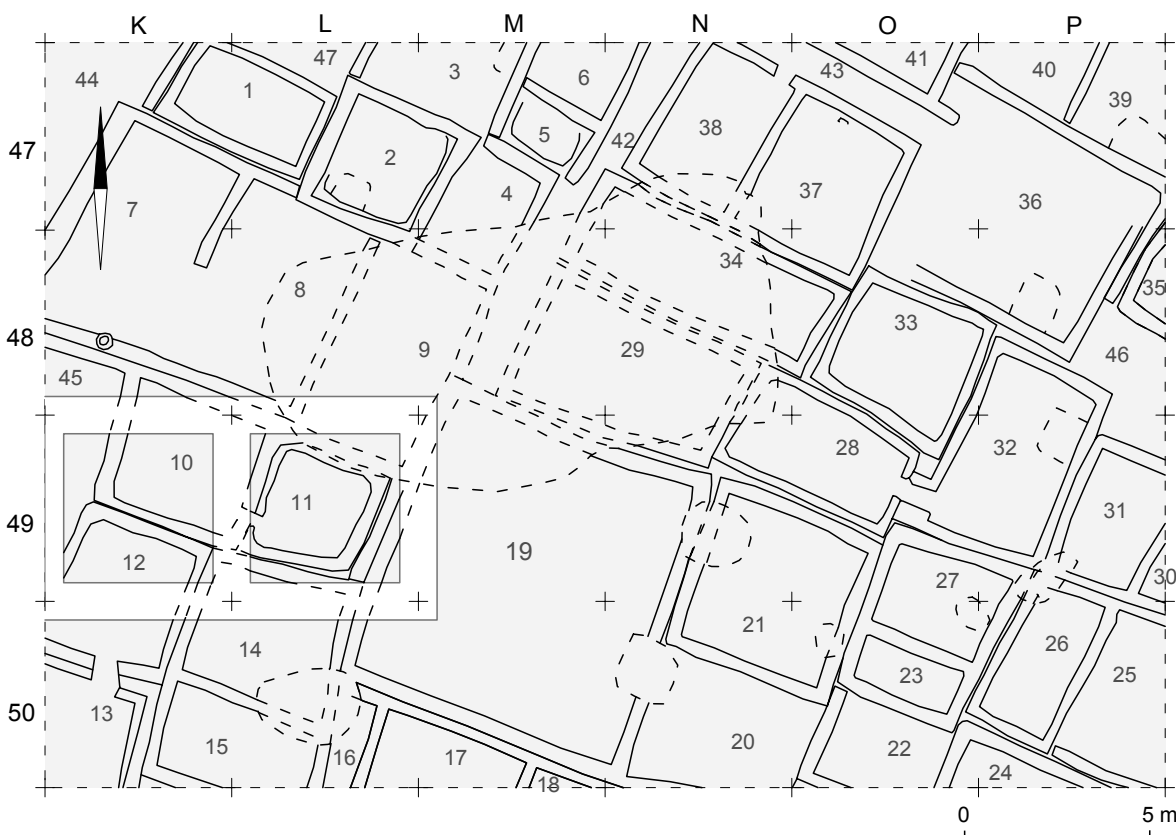


Figure 5.1: Plan of layers 1 and 2 of the Canhasan III settlement, space designations not original (based on figure 4 in French 1972).

5.2.2 THE LOAM BUILDINGS OF CANHASAN III.

The buildings of Canhasan III were constructed from large loam slabs measuring up to ca. 1.20 metres in length, and about 9 centimetres in height (see French *et al.* 1972, fig. 3). The walls were built without stone foundation or foundation trenches, and it seems likely that buildings were superimposed on earlier buildings in a manner similar to Aşıklı Höyük and Çatalhöyük. Following the construction of the walls, plaster was applied to both the walls and the floor surfaces. Some of the floors were constructed of compact clay with small pebbles added to the matrix. In some cases these walls and floors were painted red.

The reconstruction of the roofs of Canhasan III is hypothetical because no collapsed roof remains were found at the site. Circumstantial evidence provides us with some important clues for the reconstruction of the buildings of Canhasan III, however. First, the building techniques that were used for construction at Canhasan III: the employment of loam slabs and the absence of buttresses and postholes indicate that these buildings probably did not possess an upper storey (*cf.* Esin *et al.* 1991, 149-56). Second, the evidence from a range of other Central Anatolian Neolithic sites, including earlier Aşıklı Höyük and later Çatalhöyük, as well as the local vernacular building traditions, suggest that the buildings at Canhasan III most likely had flat roofs. Third, the almost complete absence of external doors at the site and the fact that buildings were constructed directly adjacent to one another is similar to the evidence at Aşıklı Höyük and Çatalhöyük, and implies that buildings were accessed with ladders from the roof.

Not much is known about the internal furnishings of these buildings, due to the fact that they were not excavated. Two ovens were found, one of them set into the southern wall of room 7 (see fig. 5.1). Some buildings had areas with burned deposits, such as rooms 2, 3, 32, 36, and 39 (personal comment French, May 2003). These areas have been indicated on the plan as rectangular platform-like features. They are located with one side along the face of a wall, usually near the corner of a room, and measure about 0.51 – 1.05 metres in width and 0.89 – 1.54 metres in length. These characteristics seem very similar to those of the pebble-paved hearths found at Aşıklı Höyük (Özbaşaran 1998, 556), and it plausible that these burned rectangular features in the Canhasan III building were also hearths, although they do not seem to have been paved with pebbles (which are not present in the direct surroundings of Canhasan III).

No sub-floor burials have been encountered at Canhasan III, but this is probably related to the circumstance that excavation of sub-floor deposits only took place in trench 49-L. Some of the buildings seem to have internal doors. Examples are the doors connecting spaces 10 and 11, spaces 12 and 13, and spaces 28 and 32. A special case consists of the opening between spaces 7 and 8 that is 2.65 metres wide (*cf.* §5.3.2).

There is one example of a door to an exterior space in the Canhasan III settlement, which is located in the northeast corner of space 38, and links it to alley 43. This exterior door constitutes an anomaly at the site of Canhasan III, and requires some discussion. A defining characteristic of the clustered neighbourhood settlements of Central Anatolia is the lack of doors connecting interior with exterior spaces, even where buildings front open spaces. This characteristic has been soundly documented at other Central Anatolian Neolithic sites, such as Aşıklı Höyük and Çatalhöyük. In light of this consideration it could be suggested that the door of space 38 is a misinterpreted hiatus in the wall. However, I have been assured that this was clearly a door (personal communication French, May 2003). If exterior doors were in existence, however, we would expect them in other buildings fronting the street as well, and we could suggest that there were other exterior doors which were less obvious in the surface scrape. The issue unfortunately cannot be solved without further excavation, but has considerable drawbacks in terms of the access analysis of the settlement. For the moment we will assume that the door of space 38 was the only door to an exterior space.

5.3.1 ROOMS OF LOAM BUILDINGS

The most natural way of dividing the settlement at Canhasan III is distinguishing spaces surrounded by walls. In those cases where spaces are not surrounded by walls, or where the minimum width is more than 5 metres, we are probably dealing with exterior, open spaces. In the case of the Canhasan III plan this seems to indicate that spaces 19 and 36 were courts. If we plot the dimensions of the spaces at Canhasan III the extraordinary sizes of these two spaces stand out very clearly (see fig. 5.2).

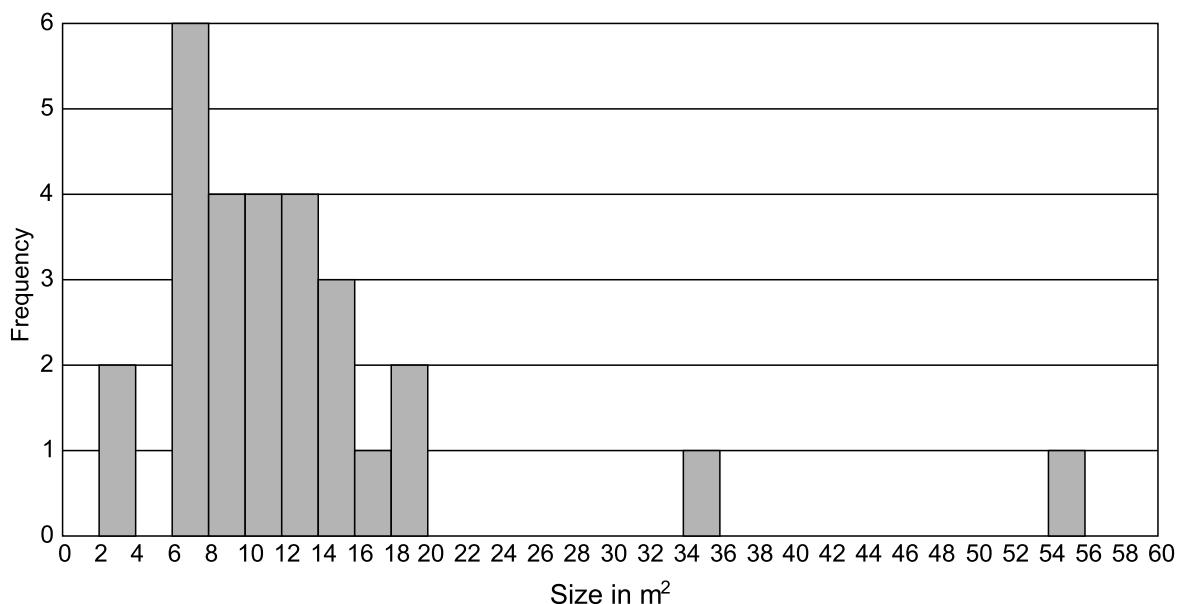


Figure 5.2: Interior sizes in m² of the Canhasan III spaces (n=28).

Other open spaces, such as 44 and 46, are located on the edge of the plan and are difficult to interpret because the evidence is ambiguous. Yet another form of open space is constituted by streets 42 and 43, which have already been mentioned. For the purposes of this analysis all other spaces of the settlement are considered to be interior spaces. The percentage of interior space in this settlement amounts to about 77 % of the total.

The interior spaces at Canhasan III defined in this manner range from 3 to 19 m², which is quite a large variability in size. Can the rooms be divided in any meaningful way within that wide range? Potentially, distinct clusters of rooms with a particular size range could be informative on the different categories of spaces that might have existed at Canhasan III. However, from the size distribution of the interior surfaces of rooms, no clear clusters stand out (see fig. 5.3). The smallest of the spaces, consisting of spaces 5 and 23, could probably not have functioned as domestic units, due to their limited size of below 4 m². The other buildings, measuring between 6 and 21 m², could potentially have served domestic purposes such as sleeping and cooking.

The average value of the interior room sizes is 10.7 m². This value is considerably higher than at Aşıklı Höyük where the average room size is 6.5 m² (§4.3.1). Given that there do not seem to be clear technological differences between the two sites in terms of building technologies used for the loam buildings, it would appear that other factors may have been at play at Canhasan III that led to a preference for larger rooms. In the following section, I will explore the degree to which rooms functioned as independent entities, or whether they were part of larger units encompassing several rooms.

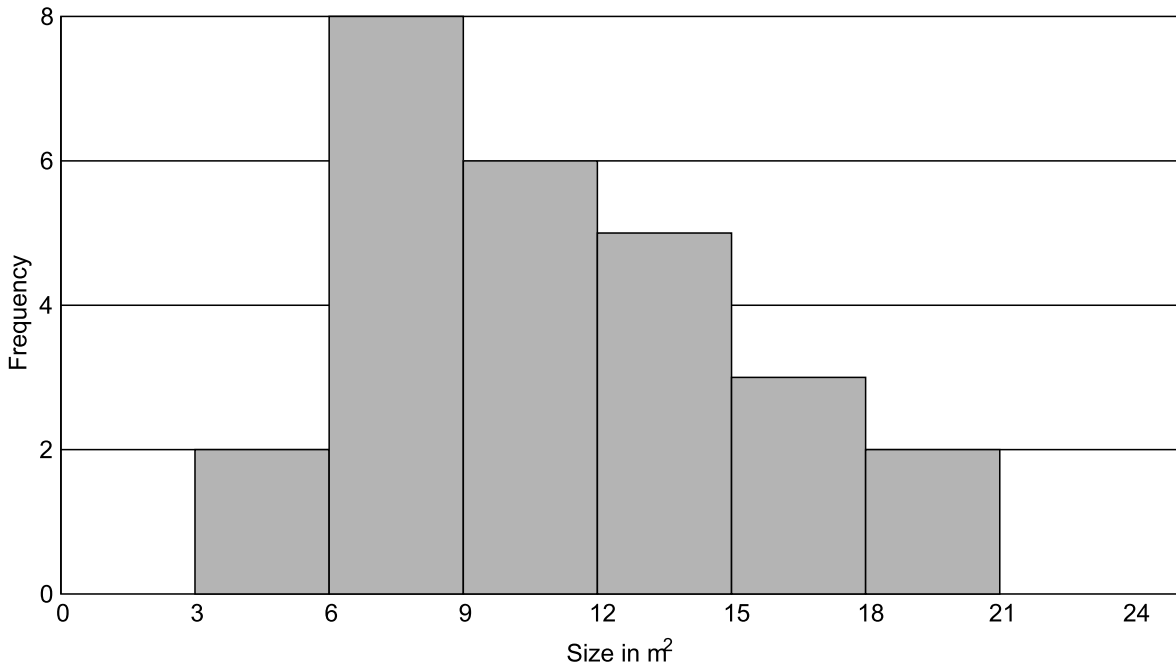


Figure 5.3: Interior room sizes in m² at Canhasan III (n=26, average 10.7 m²).

5.3.2 DEFINING BUILDING UNITS

In the absence of detailed data on the Canhasan III buildings it is complicated to reconstruct in what manner specific spaces related to one another. Especially important in this regard is the reliability of the plan. For the purposes of analysis it must be assumed that the drawings depict the relations between walls accurately. On that basis we can infer that walls abut one another where walls are drawn separately, and we can deduce that they were bonded where they are not. The reliability of the scrape plan, regarding such issues as bonding and abutting, cannot be substantiated, however. The plan of Canhasan III was obtained by scraping about 20 centimetres from the surface of the mound. Subsequently the walls were surveyed at that level. Most Near Eastern archaeologists would probably agree with me that it is very hard to establish relations between walls from the courses immediately below the surface. Except for some ideal cases such relations usually become clear only in vertical exposures.

To illustrate this problem I can mention some cases where we seem to be dealing with a palimpsest situation. For example, the walls of space 2 seem to have been constructed on top of those of buildings 8 and 9. Similarly spaces 5 and 6 seem to postdate 3 and 4, since the interlinked walls of 5 and 6 seem to abut those of 3 and 4. Further, the walls of space 4 both seem to be overlain by space 2, while at the same time abutting the walls of space 2. Given such problems the plan of the Canhasan III buildings should probably not be considered at face value. Working on scrape plans must involve a critical awareness of the nature of this type of data.

Nonetheless, we can posit on the basis of the interior sizes that some of the smaller rooms may have served as subsidiary rooms to others. In this respect it seems likely that some building units encompassed several rooms. We have some indications in what manner rooms could have constituted a unit together. First, in some cases, rooms were directly connected with other spaces by means of interior doors or portholes. Second, the widespread occurrence of double walls suggests that rooms sharing an outer wall were structurally connected.¹⁰⁵

¹⁰⁵ Although this structural connection may only relate to the initial stages of usage, as buildings may have been subdivided later on.

The following units can be distinguished on the basis of the presence of an internal door: 7/8, 10/11, 12/13, and 28/32. Most of the individual rooms that have internal doors to another space are between 10 and 11 m² in size. In this respect spaces 7 and 8 are somewhat exceptional, both because they are much larger than the other rooms in the settlement, and due to the fact that they are separated by a buttress only. The second means by which spaces may have been connected at some point is the sharing of an outer wall. Following this principle the following spaces can be connected with each other, many of which also share an interior door: 10/11, 23/27, 25/26, 30/31, 14/15 and 37/38. Less secure possible units can be distinguished on this basis are 5/6, 7/8, and 17/18. To these multiple room units we can add a number of large single rooms surrounded by their own set of outer walls that were probably autonomous building units. Examples of such single room units are spaces 21, 29, 34, and perhaps 9. The building units distinguished on the basis of these two criteria are represented in figure 5.4.

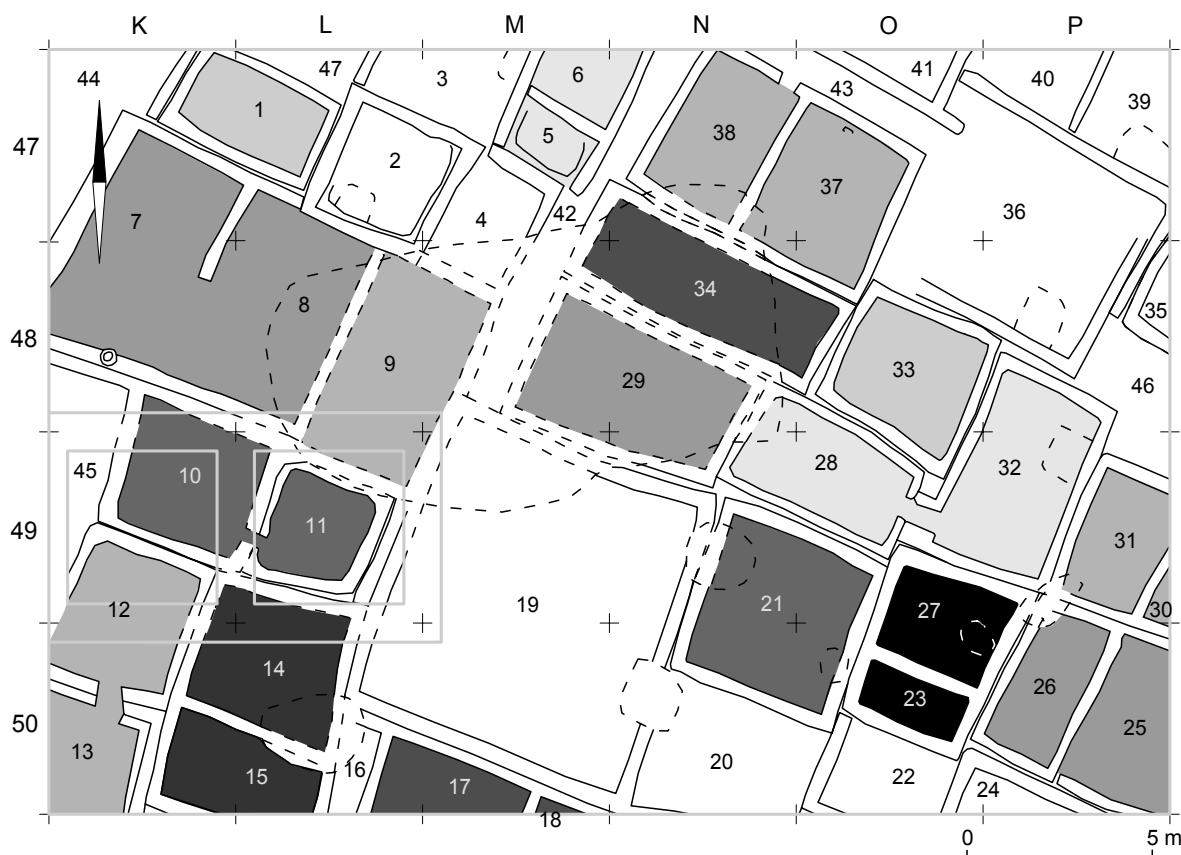


Figure 5.4: Reconstructed building units at Canhasan III.

In total, seventeen building units can be distinguished. Of these seventeen building units, six are single room units, ranging in size from 7.1 to 16.7 m². The six multiple room units of which the dimensions can be determined range in size from 10.4 to 36.6 m². If we plot the dimensions of these units (see fig. 5.5), most fall into the size range of 9 – 25 m², with the exception of unit 1, which is markedly smaller than the other buildings, and building 7/8 which seems to be twice as large as the other units. It is not clear why this unit is so much larger than all the others. One possibility would be that unit 7/8 served some kind of special purpose. For instance, it may have been a public building. A more simple explanation may be that 7 and 8 are independent units, and that the separating wall was incompletely preserved.

Apart from the two outlying units 1 and 7/8, the size range in figure 5.5 is relatively limited. Furthermore, the dimensions and proportions of the building units seem to be regular. Most building units are rectangular or slightly trapezoidal, with a length that is approximately 1.6 times their width. These proportions do not accurately describe all the building units at the site, but they seem to provide a good overall description. The fact that these units can be compared in such a manner might suggest that some form of modular concept of what a building should look like existed at Canhasan III.

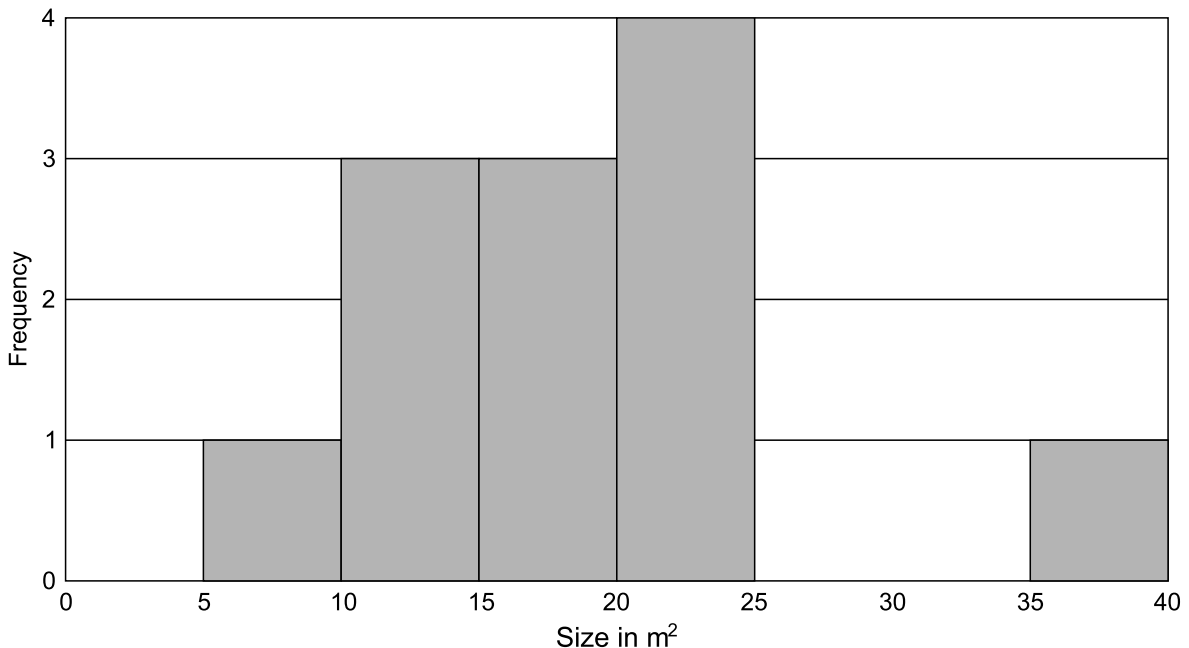


Figure 5.5: Interior sizes in m² of the Canhasan III building units (n=12, average 17.8 m², average excluding largest unit 7/8 16.1 m²).

5.4.1 SPATIAL DISTRIBUTIONS

Due to the fact that the plan of Canhasan III was obtained by scraping, and no excavations took place except for a small trench, little can be said about the spatial distributions of features and objects at the site. In the majority of buildings, floor levels were not exposed, and hence no associated features or objects were found. However, at least in some of the spaces, floor surfaces were at near surface level. The make up of these floors is described as consisting of hard compacted clay, in some cases mixed with small pebbles or with a red coating (French *et al.* 1972, 182). Unfortunately, it is not clear from the published records in which buildings these floors were found.¹⁰⁶

Space 37 might have contained a small object in the north, but it is not clear whether this was located on the floor. Burnt rectangular areas were indicated in spaces 2, 3, 32, 36, and 39, and I have already suggested that these may have been hearths (§5.2.2). Finally, space 7 contained an oven built into its southern wall. The oven contained charred macro-botanical remains, including some cereals, as well as legumes, and nuts (French *et al.* 1972, table 1).

The evidence we possess for spatial distributions of features and objects is thus extremely limited and of poor resolution. For instance, we cannot determine whether the burnt rectangular areas are hearths or related to room fill. Even if we were confident that these were hearths, studying

¹⁰⁶ In Mellaart's 'The Neolithic of the Near East' there is a plan suggesting that red painted floors were present in spaces 33 and 32 (Mellaart 1975, 97, fig. 44), but it is not clear on what information this is based.

their distribution would not tell us much, because the absence of hearths in most buildings is not evidence of absence, but relates primarily to the fact that these buildings were not excavated and their floors may have been located at a slightly deeper level. In these circumstances it is not considered useful to study spatial distributions at Canhasan III.

5.5.1 DEFINING DOMESTIC UNITS

Can we distinguish possible household units in Canhasan III settlement? Given that the rooms at Canhasan III can be assigned to discrete building units, these buildings could in theory have been used by more or less autonomous households.

I have already argued that most of the building units seem to have been fairly standardised in dimension and overall form. It is tempting to interpret this type of modularity as evidence for household residences. However, households are not identical to building units, and can be fragmented over several unconnected spaces. Alternatively, multiple households can inhabit the same building (Wilk and Rathje 1982, 618; Allison 1999, 4). In the previous chapter the Aşıklı Höyük data strongly suggested a fragmented use of space.

Notwithstanding such examples to the contrary, in the far majority of cases households do inhabit distinct structures (Blanton 1994, 5). With due caution, we can try to define households at Canhasan III on the basis of the building sizes. Unfortunately, the social interpretation of buildings at Canhasan III cannot be aided by an evaluation of their interior furnishings. This means that we cannot gain an understanding of the activities that occurred in these buildings, and whether storage, production, and consumption of subsistence goods occurred in the context of each building, or was organised in other ways.

The only available indication of the nature of households at Canhasan III lies in the size of the building units. Given the size range of the building units, between 9 and 25 m², it seems plausible that these building units could have belonged to small households of nuclear families rather than extended ones (see table 5.1). However, I have already argued that the cross-cultural floor/people indexes can only be used to gain a first idea of possible residence groups and that such propositions need to be confronted with contextual evidence.

Building unit	Size in m ²	Naroll 1962	Cook and Heizer 1968	Casselberry 1974
Smallest	7.1	0.7	3.0	1.2
Average	16.1	1.6	6.2	2.7
Largest	24.0	2.4	7.0	4.0

Table 5.1: Population estimates of Canhasan III building units using three formulae that relate roofed floor area to the number of inhabitants.

An important question that should be asked at this point is whether searching for clearly defined households at Canhasan III is justified by the data. The fact that people chose to live in tightly nucleated clusters of houses rather than in distinct buildings might suggest that the household was not a clearly defined entity to the people at Canhasan III. In chapter 6, which deals with Çatalhöyük, it will be argued that at that site clear household residences can be distinguished, in contrast to Aşıklı Höyük where these do not seem to have existed. Canhasan III occupies an intermediate position in terms of chronology. Assuming for the moment that these three sites are manifestations of a broader regional development, a supposition that can be questioned on good grounds, either of these two models could be applicable at the site. Both the individual rooms and the building units at Canhasan III are somewhat larger than at Aşıklı Höyük, suggesting that the Çatalhöyük model of households constituted by a series of spatially discrete households could be more relevant for Canhasan III.

5.6.1 NEIGHBOURHOOD CLUSTERS

The Canhasan III settlement is subdivided by courts and alleys into a number of neighbourhood clusters. Distinguishing such spatial associations between buildings involves an assessment of the plan of Canhasan III. One issue that is of importance here is the degree to which the buildings represented on the plan published by French are contemporary.

In the plan in his preliminary report, some walls were drawn with a black fill, others were left blank, and a third group of walls was drawn with dashed lines. The latter group was drawn in this manner in areas where the surface had been disturbed by later pits. Most of these walls were drawn tentatively and their course must be considered as somewhat hypothetical. The walls of which the interior was left blank (see French *et al.* 1972, 185, fig. 4) seem to have been later in date than those represented as solid black walls (Ataman 1988, 37, fig. 3). On this basis, some walls clearly out of phase can be removed from the plan, in particular the incompletely preserved structure in the southeast of court 36 (compare fig. 5.4).

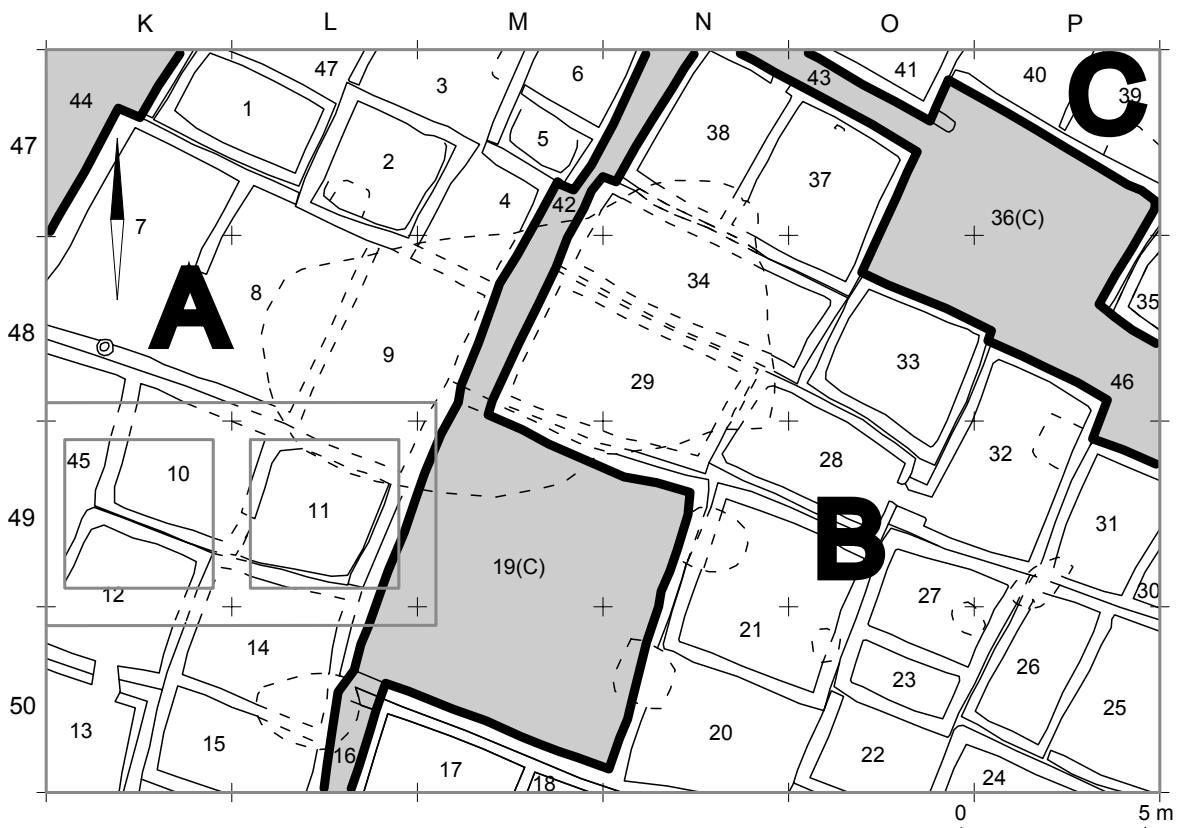


Figure 5.6: Reconstructed neighbourhood clusters of Canhasan III, open spaces in light grey.

By removing the walls from this later phase of occupation the plan becomes more coherent and clear (see fig. 5.6). However, I do not want to imply that all the buildings that remain on figure 5.6 were more or less contemporary. Indeed, I have already discussed particular areas of the plan, such as that surrounding space 2, where the situation represented is probably a palimpsest situation. However, on a general scale I do believe that the plan provides a good approximation of what the settlement could have looked like at a particular point in time (*cf.* §3.5.1; §4.7.1), and as such can serve to obtain a general understanding of the settlement.

The second type of assessment of the Canhasan III plan that is required to outline the neighbourhood clusters is an interpretation of the nature of spaces, in particular which spaces were exterior spaces that separated groups of buildings. In some cases this interpretation is

straightforward. For instance, it is clear that spaces 19 and 36 acted as courts, on account of their extraordinary widths and overall sizes (§5.3.1), and it is equally clear that the narrow and long spaces 42 and 43 functioned as alleys. Other areas are more difficult to classify as either open or closed spaces, especially when located along the edge of the plan. Only in the case of space 44 is it more or less clear that we are dealing with an open space. I have interpreted space 16 as an alley, on account of its narrow width, not found in buildings but similar to alleys 42 and 43, and because space 16 is in alignment with alley 42. The interpretation of space 16 has some implications for the distinction of neighbourhoods in the settlement, because the space separates two of them.

On the basis of these considerations three tentative neighbourhood clusters can be distinguished at Canhasan III, here designated as ‘A’, ‘B’, and ‘C’.¹⁰⁷ These groups of buildings were separated in many areas only by a narrow alley, which is generally no more than a metre in width. It is possible that these alleys were bridged at the roof level with wooden boards, and that the distinction between neighbourhood clusters drawn here was not perceived as such by people at Canhasan III.

On the other hand, the data from both the earlier Aşıklı Höyük and the later Çatalhöyük settlements do indicate that neighbourhoods were often reconstructed along the same boundaries over many phases of reconstruction, which could imply that they were conceived of as meaningful entities (§4.10.2). Furthermore, the spatial differentiation between building clusters separated by alleys must have been obvious to Prehistoric people, and even if there were bridges on the roof level, and it is likely that this differentiation was given some kind of meaning.

Of the three neighbourhood clusters that can be distinguished at Canhasan III, ‘B’ has been most completely exposed (see table 5.2), and seems to have contained at least 10 building units. If these were household residences, as has been suggested earlier, this neighbourhood cluster would have consisted of at least 10 households, or about 40 to 50 people. Unfortunately it is not possible at present to estimate what proportion of these neighbourhoods has been uncovered, as the exposure at Canhasan III is simply too small for that purpose.

Neighbourhood cluster	N rooms	N units	Surface area m ²
A	15-17	7	212
B	18-19	10	242
C	4	0	34

Table 5.2: Characteristics of the tentative neighbourhoods of Canhasan III (incompletely excavated and/or preserved).

In the previous chapter it has been argued that approximately 30 households would have resided in the Aşıklı Höyük clustered neighbourhoods, three times as many as can be demonstrated at Canhasan III with its small exposure. At present there is no means of evaluating whether the Canhasan III neighbourhoods would have been of a similar size to those of Aşıklı Höyük, but such a hypothesis does not seem unlikely. I will return to the point of neighbourhood size in chapter 6, which deals with Çatalhöyük.

5.7.1 ESTIMATING THE CANHASAN III POPULATION

Canhasan III is a relatively small site, compared to other Central Anatolian Neolithic sites such as Aşıklı Höyük and Çatalhöyük, and measures approximately 10,000 m², of which only 600 m² have been investigated (French *et al.* 1972, 182). In this investigated area we can define 17 building units, but it is safe to assume that the real number was closer to 20. Assuming that 4 to 5 people would have lived in these buildings on the basis of their sizes, we can estimate that between 80 and 100 people would have lived in the exposed part of the settlement. If the rest of the site was equally

¹⁰⁷ Note that the level 1 building in open space 36 would have altered the definition of the neighbourhoods considerably, because it would have connected neighbourhoods B and C.

densely inhabited, and allowing for 25 to 50 % of the site not being occupied, we can arrive at a maximum estimate in the range of 660 to 1250 people living at Canhasan III.¹⁰⁸ The speculative nature of these figures should be emphasised, but it seems plausible that we are dealing with a settlement in which several hundred people lived.

At Aşıklı Höyük large monumental complexes existed that may have served to bind the larger community as a whole. Thus far, evidence for similar types of structures is absent from the site of Canhasan III. Given the small exposure at the site, this absence of evidence should not be taken as evidence of absence.

5.8.1 THE SPATIAL CONFIGURATION OF THE CANHASAN III SETTLEMENT

On the basis of the limited exposure of the Canhasan III, three component elements of the settlement can be distinguished. A first component is constituted by the buildings that we have already discussed in previous sections. A second are the narrow streets, perhaps better designated as alleys. One of those streets, labelled space 42 runs between buildings 38, 34 and 29 to the east, and 9, 4, 5, and 6 to the west, in a northeast-southwest direction. This alley was probably connected to the second street in the plan, space 43, oriented in a northwest – southeast direction, at right angles to the street 42. It is located between space 41 to the north and rooms 38 and 37 to the south. As was the case with the street 42, it is between 80 centimetres and 100 centimetres wide. A third space interpreted as a street is the southern space 16, because of its alignment and width, which is similar to that of spaces 42 and 43, and not paralleled in the buildings of Canhasan III. Apart from their narrow widths the streets are also characterised by the fact that they run towards large open areas 19 and 36. These large open spaces form the third component of the settlement. The nature of these open spaces cannot be determined in the absence of published data, and it is not possible to determine whether they were, for instance, refuse dumps occasionally used for animal penning, as was the case at Çatalhöyük (see chapter 6), or may also have been used for craft activities, butchering and food processing, as was the case at Aşıklı Höyük (§4.2.1).

The Canhasan III plan seems to indicate the following kind of access organisation. First of all, there is a communal domain, consisting of the streets and the courts with which they connect. Second, there is the rooftop level of communications.

The streets seem to have been mainly for traffic between courts.¹⁰⁹ Both streets are narrow alleys, in between 0.8 and 1 metre in width. Given the limited width of these streets they seem to have been unlikely locations for ascending the roofs of houses with ladders. Whatever the precise angle of the ladders that were used, and irrespective of whether they were positioned transversely or parallel to the walls, ladders in the narrow alleys would have taken up at least half of the alley, leaving only 50 – 40 centimetres space for manoeuvring. A series of ladders in such an alley would have effectively blocked their function for traffic (compare §4.10.2).

It seems more likely, in such a situation, that the roofs of buildings were accessed via large courts only, such as spaces 19 and 36. These open spaces were approached via the streets, in this case street 42 and street 43, and several ladders may have stood in the courts that could be used to ascend to the roof level. Of course, it is not possible to reconstruct how many ladders were present in such a court, and where they were positioned. In the case of court 19, the number of ladders could have ranged from between one or two (in this case the rooftop interface would be ascended at a few points, from which other roofs were reached subsequently), to five (every roof was reached by its own ladder), up to about nine (one for each space). In the case of court 36 the minimum amount of ladders is two (one north and one south), the practical number is 5 (one for each distinct roof level),

¹⁰⁸ If 6 % of the site housed 80 – 100 people, 100 % would house 1333 – 1666 people. If we deduct from this 25 to 50 % of the site as uninhabited, we arrive at a maximum population ranging between 660 (50 % of 1333), and 1250 people (75 % of 1666).

¹⁰⁹ The fact that space 19 is represented with a surrounding wall need not contradict this interpretation. It seems likely that some form of entrance existed in these walls that was no longer visible in the scrape survey.

while theoretically there could be 7 (one for each distinct space). Given that it is not possible to determine where ladders would have been positioned, the following access analysis is based on the premise that each roof could be accessed with a ladder directly.

5.8.2 ACCESS PATTERNS AT CANHASAN III

In order to obtain a better idea of how transport and communication was organised at Canhasan III, I found it useful to rework the settlement plan into a schematic access plan showing both the nodes and their links (see fig. 5.7). The plan of Canhasan III can be 'converted' into such an access graph using the following principles. First the basic 'nodes' or 'cells' are plotted. These are defined as either an interior space, or, in the case of open spaces, an individual court or street. Next, the links that existed between the different nodes can be represented by drawing lines from one node to the next. Finally, the nature of both the nodes and the links can be differentiated, as indicated by the use of different line types. For instance, a link from a street to a court is of a different nature than a link from a court to a roof. In the first case one can move from one space to the next without encountering any obstacles, whereas in the second case it involves climbing a ladder.

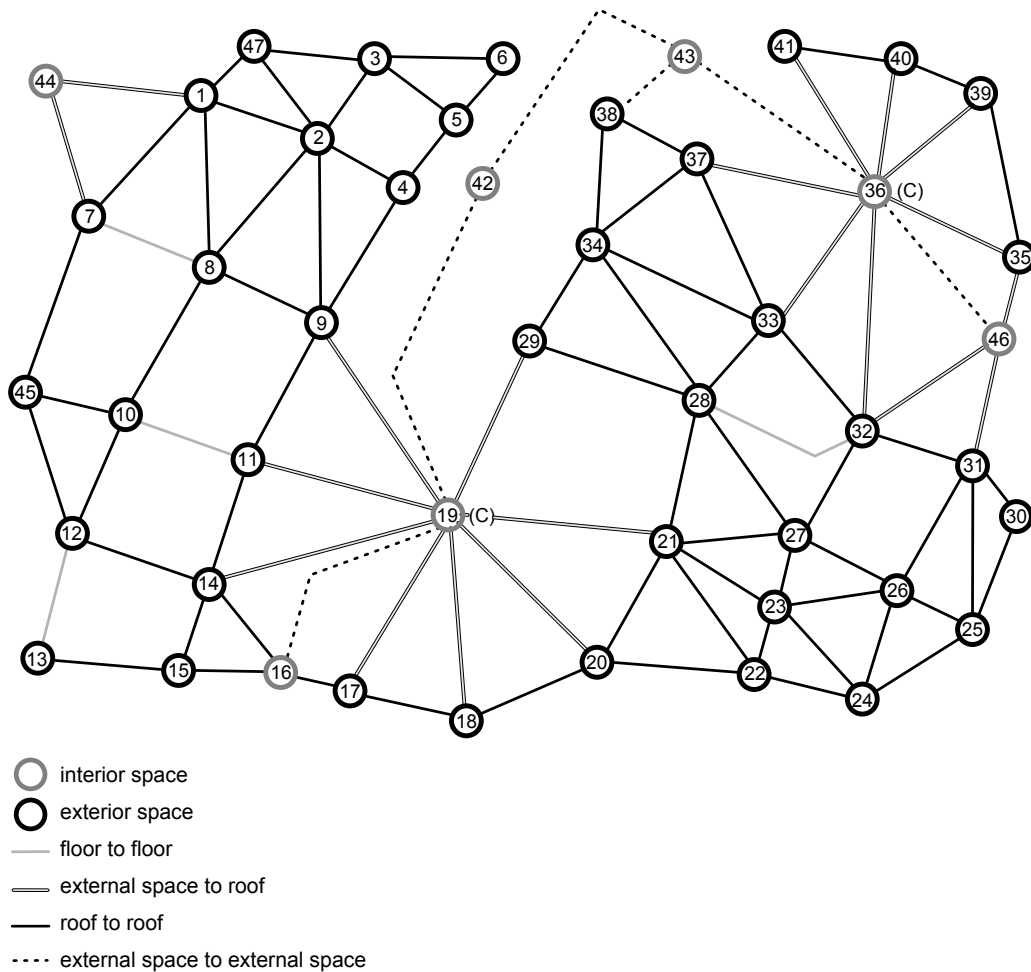


Figure 5.7: Access plan for Canhasan III.

The access plan in figure 5.7 represents an interpretation of first, the nature of the spaces involved (whether they are interior or exterior), and second, the nature of the links between them (e.g. that every building can be accessed directly with a ladder from the courts). Given the

interpretative character of this plan it is not considered suitable for performing calculations on the spatial configuration of the settlement. Nonetheless it may serve to draw out some general characteristics of the organisation of space.

First the central importance of the two courts, spaces 19 and 36, immediately becomes apparent from figure 5.7. Buildings could only be accessed from these courts, and these spaces play an important role in the spatial configuration of the settlement that is comparable to that of midden JA and the broad street GA at Aşıklı Höyük (§4.10.2).

Second, it is clear that not all spaces can be accessed directly from the courts, as a substantial number of rooms can be reached only via other roofs. This is, of course, one of the defining characteristics of the clustered neighbourhood settlements of the Central Anatolian Neolithic. Excluding the spaces on the edges of the plan (for which we do not know entirely how they are situated in the settlement), there are seven rooms that cannot be reached directly from the open spaces of the settlement.¹¹⁰ These spaces can be said to be located ‘deep’ in the settlement. As far as I can tell the spaces at Canhasan III that are further removed from the courts do not seem to differ from the other rooms at the other sites.

5.8.3 MOVING THROUGH THE CANHASAN III SETTLEMENT

On the basis of the considerations above we can reconstruct what it could have been like to move through the Canhasan III settlement. This seems to have involved moving through three different types of spaces, each of which would have differed radically in a number of respects. In order to arrive at one’s residence the first step would probably have been to walk through the narrow alleys. These were shaded and cool places, but they were also narrow and confined. People could not survey their surroundings in these places and had to move in a single row through them. By contrast, these spaces can be easily monitored from the roof of the directly surrounding buildings.

From the alleys, people would arrive in the large courts. By contrast to the alleys these are wide open spaces with little shade. We can imagine that these courts were hot and that people were blinded by the light upon entering these spaces. A series of ladders were placed along the edges of the courts that provided access onto the roof level. Again, it must have been easier to monitor what was happening in the courts from the adjacent roofs of buildings than vice-versa. The fact that these courts served two neighbourhoods probably meant that these spaces were less private than the roofs of the individual neighbourhoods, and these courts might have been places where inhabitants of adjacent neighbourhoods could mingle more freely.

Finally, one would enter onto the roof level by way of a ladder. This environment contrasted markedly with that of the courts. It allowed for surveying the surrounding buildings and the people moving about on them, and there would have been wide views of the settlement and the landscape. During the dry part of the year a range of activities would have been performed on the roofs and people would have stored a variety of goods on them. This roofscape was probably much cleaner than the courts and streets at ground level. Further, it can be assumed that access to the roofscape was more restricted than that of the streets and courts. In any case, movement onto and over the roof level could be more actively monitored than movement in the narrow shaded alleys at ground level. Most probably the rooftop level was exclusively reserved for the inhabitants of that specific group of houses. For those not living in these buildings some kind of permission was in all likelihood necessary to proceed onto these roofs. Access to the roofscape might have ranged from a liberal regime for people that had close relations with some of the residents, to a more formal procedure for more distant visitors.

5.9.1 SOCIAL DIMENSIONS IN THE CANHASAN III SETTLEMENT

The evidence from Canhasan III is restricted to a small exposure and derives from a surface scrape rather than from excavations. This circumstance has considerable drawbacks for this analysis,

¹¹⁰ Spaces 2, 4, 5, 23, 26, 27, and 34.

because measurements of buildings and their characteristics on the one hand, and studies into the spatial configuration of the settlement on the other, cannot be confronted with contextual evidence concerning the nature of the spaces involved. Nonetheless, some suggestions can be made as to the structure of society on the basis of the characteristics of the Canhasan III settlement.

Regarding the dimensions of building units, the Canhasan III structures, with an average size of 16 m², occupy a middle position between the earlier building units of Aşıklı Höyük, that are 11 m², and those of Çatalhöyük, that measure 27 m² on average (§6.3.2). In the absence of contextual evidence it not possible to determine whether spatially discrete household residences were absent at Canhasan III, as was the case at Aşıklı Höyük, or whether they did exist, as will be argued for Çatalhöyük. I will tentatively interpret the building units at Canhasan III as household residences, in the absence of evidence to the contrary, and given that cross-cultural estimates indicate that the Canhasan III buildings were potentially large enough for household groups.

The individual buildings at Canhasan III are grouped into clustered neighbourhoods that encompassed at least 10 buildings, but probably more. The evidence from both Aşıklı Höyük and Çatalhöyük suggests that a typical neighbourhood would have comprised some 30 households, or 120 to 150 people. Given an estimated maximum population of 660 to 1250 people at the site, this would mean that between five and ten neighbourhoods could have existed at Canhasan III.

At Canhasan III these clustered neighbourhoods were separated from one another by narrow alleys and large rectangular courts. The alleys served as communication routes to the courts, but were too narrow for the placement of ladders for access to the roof level. The courts were the locales from which the neighbourhoods were accessed, and probably served as places where members from adjacent neighbourhoods could mingle at ease.

By contrast the clustered neighbourhoods would probably have been fairly exclusive residential areas, access to which was free only to the inhabitants of that particular neighbourhood. Moreover, it seems plausible that the inhabitants of a neighbourhood conceived of themselves as some sort of social collectivity, membership of which was tied to residence.

Given the absence of contextual evidence much of this reconstruction is, by necessity, of a speculative nature. In the following chapter I will try to overcome this deficiency in the argument by focusing on a site with a wealth of contextual evidence that could help to make my arguments more convincing. That site is Çatalhöyük, and it is of key importance for anchoring this study.

CHAPTER 6: THE SETTLEMENT OF ÇATALHÖYÜK

The Çatalhöyük¹¹¹ evidence provides a unique window on the societies of the Central Anatolian Neolithic. Following the 1960s excavations by Mellaart, the site quickly became one of the most famous archaeological sites of the world. The fame of the site rests primarily on the discovery of a range of phenomena that appealed to both archaeologists and the general public. These include: first, a corpus of vivid imagery, in the form of wall paintings, mouldings applied to interior wall surfaces, and figurines; second, a large number of well preserved intramural sub-floor burials some of which were buried with valuable grave goods; and third, a settlement of a type that lacked a public domain.

These characteristics of Çatalhöyük were revealed over the course of four expediently dug campaigns, during which Mellaart managed to excavate a large number of buildings. He produced a series of articulate reports on these campaigns that were published in both academic and popular formats on a yearly basis. A monograph on the site was published in 1967, only two years after the last campaign at the site.

In the more recent decades the site has acquired additional relevance as a result of the initiation of a new large-scale excavation project that started in 1993 and is scheduled to last for 25 years. This Çatalhöyük Research Project (henceforward ÇRP), which is directed by Ian Hodder, is providing important new evidence that is altering the picture obtained in the earlier excavations in a large number of respects.

The data from Çatalhöyük are ideally suited for the comparative type of settlement analysis practiced in this study for three reasons. First, large horizontal exposures of the built environment are available from both the old and the new excavations. Second, the Çatalhöyük settlement can be studied diachronically. A number of plans are available dating to different phases of occupation of the same neighbourhood, enabling us to monitor the development of both individual buildings, and the neighbourhood as a whole over considerable periods of time. This combination of diachronic evidence with large exposures is rare in Near Eastern archaeology.¹¹² Third, a large amount of contextual information is available at Çatalhöyük, which allows us to study the uses of spaces and monitor the variability that exists in that regard. The co-occurrence of these three factors makes Çatalhöyük one of the most suitable sites for settlement analysis in the Prehistory of the Near East.

A major drawback of the Çatalhöyük evidence, however, is that much of the data obtained in the 1960s remains to be published in detail, whereas new data from the Çatalhöyük Research Project are only now starting to appear. On a more positive note, the existence of data from the two projects, one set of which provides a broad overview but lacks resolution, whereas the other set of data is of high resolution but is spatially limited to a few buildings, allows for a fruitful juxtaposition of evidence, the sum of which is much more informative than the individual projects taken in isolation.

6.1.1 GEOGRAPHICAL SETTING

Çatalhöyük is a site measuring about 13 hectares, measuring approximately 450 by 275 metres. It rises approximately 17.5 metres above the surrounding plain, and continues five metres below that.

¹¹¹ In this study 'Çatalhöyük' stands for Çatalhöyük East, located at 37N06', 32E08'. Other spellings that can be found in the literature are 'Çatal Hüyük', and 'Çatal Höyük'.

¹¹² Two other sites with similar diachronic evidence in a large area in Near Eastern Prehistory are Tepe Gawra, located in Iraq (Tobler 1950; Rothman 2002), and Çayönü in Southeastern Turkey (A. Özdoğan 1999).

It is located along the eastern bank of the former Çarşamba River, which is no longer carrying water today. Opposite this dry riverbed is another mound, known as Çatalhöyük West, which was occupied in the Chalcolithic period (fig 6.1).

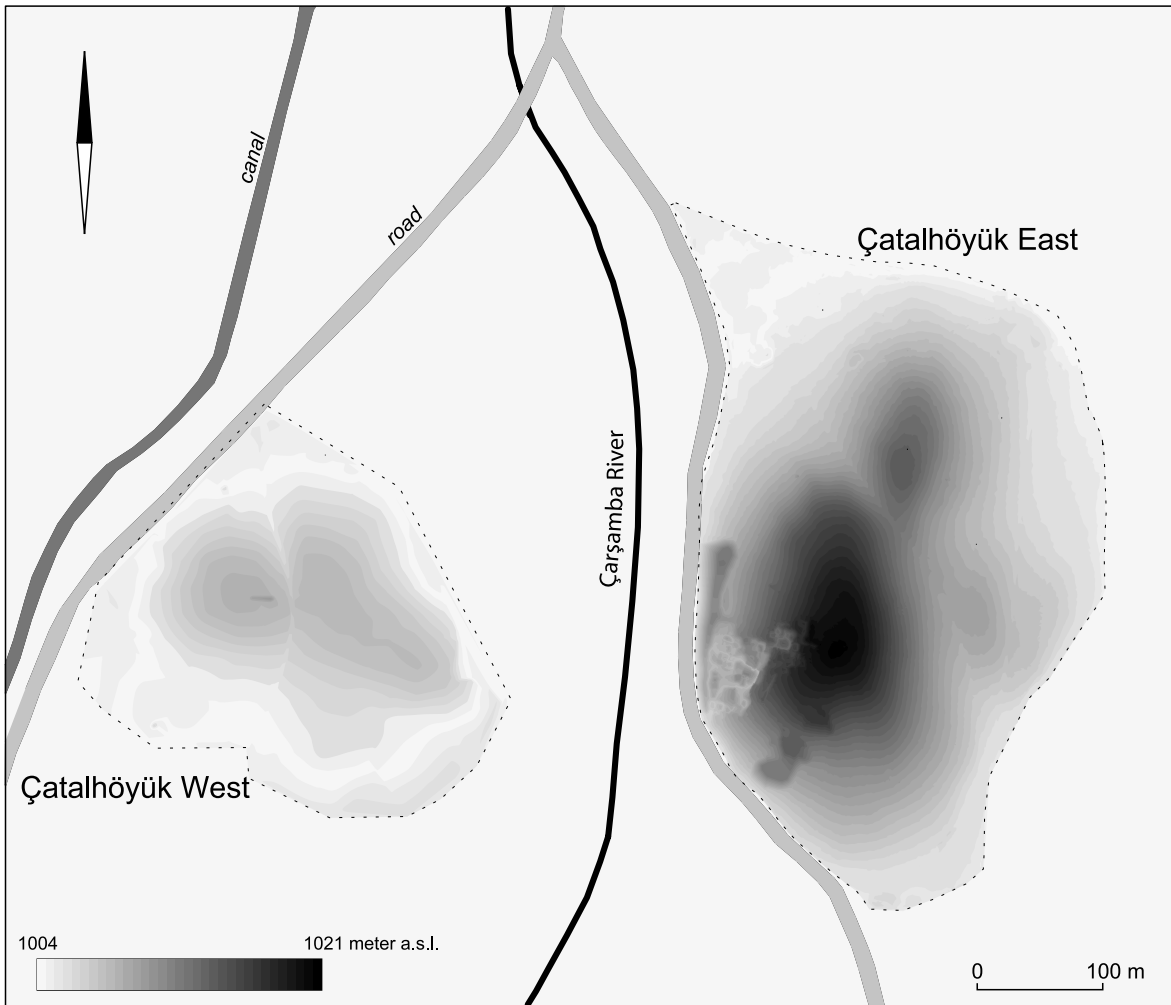


Figure 6.1: Map of Çatalhöyük East and West (based on figure 5.1 in Pollard *et al.* 1996).

Çatalhöyük is located in the Konya plain, which is an almost flat alluvial basin bordered by the Taurus mountains to the south and west, and separated from the rest of the Central Anatolian highlands by lower ridges to the east and north. In the pre-modern situation several rivers originating in the surrounding uplands drained into a number of shallow saline lakes in the Konya Plain.¹¹³

The Konya plain is presently one of the most arid environments of Anatolia. Annual precipitation varies between 200 and 300 mm. This is a marginal zone for rain-fed agriculture, in

¹¹³ Today the Konya Plain environment has been radically altered as a result of large-scale irrigation projects. Consequently, agriculture has gained a new prominence in the plain, especially in the areas located along the southern edge of the plain. This irrigation has had quite dramatic effects on the water economy of the region. Former rivers and lakes have disappeared at a rapid pace, and the groundwater table has dropped dramatically, as a result of which the trees in the plain, formerly planted along the river courses, are now being decimated.

which harvests will regularly fail to support local subsistence needs, whereas wetter years may provide good harvests in excess of requirements. In order to secure continuous productivity the area needs to be irrigated. Roberts (1990) has argued for a cyclical pattern of use for the Konya Plain in which periods of large-scale exploitation of the plain involving large irrigation networks alternated with periods during which permanent occupation was abandoned and the plain was used as pasture land:

“It is therefore not difficult to envisage Holocene settlement in south central Turkey following a cyclical pattern, with population expanding onto the dry but potentially fertile Konya Plain during times of political and economical stability, and retreating into the security of the mountains when central political organisation and the irrigation system broke down.” (Roberts 1990, 58)

Given the marginal nature of the Konya Plain at large for agricultural purposes, three key issues arise regarding the economy of Çatalhöyük and the rationale for its location. The first issue concerns the climatic history of the Konya Plain and how that may have affected its potential for agriculture in the past. The second issue concerns the importance of agriculture in relation to other sources of subsistence during the occupation of the site. Finally, the third issue addressed is the specific location of the site in relation to the agricultural potential of its immediate surroundings.

The general climatic history of Central Anatolia has already been discussed (§1.1.2), and need not be repeated here. From the analyses of diverse sets of evidence, such as pollen, lake level analysis, and dendro-chronological analysis, the main conclusion seems to be that the climate of the Konya Plain was more or less similar to that of the present from the earliest Neolithic onwards (Van Zeist and Bottema 1991, 124-5; Woldring and Bottema 2001, 16-8). Thus, the Neolithic Konya Plain at large was probably no more suitable for rain-fed agriculture than it is today. However, it is possible that in certain parts of the landscape, local conditions may have differed somewhat from those of the present, and for that reason a detailed analysis of the direct surroundings of Çatalhöyük is required (Baird 2002, 154).

Second, from the botanical analysis performed at Çatalhöyük it has become clear that domestic crops were of crucial importance for subsistence practices at Çatalhöyük (Fairbairn *et al.* 2005).

Third, a substantial body of literature has been written on the palaeo-ecology of both the Konya Plain in general, and the direct surroundings of Çatalhöyük in particular (Cohen 1970; Roberts 1983; 1990; Roberts and Wright 1993; Kuzucuoğlu *et al.* 1998; Bryson and Bryson 1999; Roberts *et al.* 1999; Asouti and Hather 2001; Roberts 2002; Asouti 2005, 243-51). In this section I will only discuss the nature of the direct environment of Çatalhöyük at the time of its occupation.

Geomorphologists working on the reconstruction of the close surroundings of Çatalhöyük have come to the conclusion that during its Neolithic occupation the site was located at the centre of the active alluvial fan of the Çarşamba river, which flooded the area on a regular basis, most likely in spring following the melting of snow in the Taurus mountains, and deposited fine-grained alluvial sediments in the process (Roberts *et al.* 1996; Baird 2002; 145; Asouti 2005, 245). In some areas of the accidented terrain, stagnant marshes would have formed when the water receded. The presence of such marshes can be deduced from several strains of evidence. First, coring and sediment analysis in the surroundings of the site have demonstrated that the surface was indeed accidented, and in one core, diatoms indicative of standing water were found (Roberts *et al.* 1996, 36-7). Furthermore, salt-loving plants and marsh plants were found by botanists of both the old and new excavations (Helbaek 1964, 123; Asouti *et al.* 1999), and in addition, fish, frog and waterfowl bones were found by faunal specialists (Martin *et al.* 2002; Russell and McGowan 2005), pointing to the presence of biotopes with permanent water.

In this marshy landscape there were some hummocks on which riparian tree stands of species such as willow/poplar, elm, ash, tamarisk, plane and alder could be found. To the north of this area a steppe zone existed that supported some dispersed shrubs, and to the south, along the

Taurus foothills, oak-park woodlands could be found. The oaks in these dispersed forests were often as much as six to seven metres high (Asouti 2005, 249).

A final landscape element that should be mentioned is a sandy ridge located approximately 12 kilometres south of Çatalhöyük. Historically this ridge was one of the first to be used for rain-fed farming when it was re-introduced to the region, because the soil matrix is more suitable for agriculture than the other soils of the region. An important reason why the sandy ridges seem to be suitable for farming is that salts are more easily leached downwards, and salinization is thus less of a problem (Driessen 1970, 70). By contrast, it has been argued that the back swamp soil directly surrounding Çatalhöyük in the Neolithic was characterised by poor drainage and frequent episodes of flooding and sedimentation that were detrimental for farming practices (Roberts *et al.* 1999, Asouti and Hather 2001, 27-8, Fairbarn *et al.* 2002, 49). Some researchers have suggested that the people at Çatalhöyük were mainly using the sandy ridges for farming activities (Asouti and Fairbarn 2002, 188 – note 19; Fairbarn *et al.* 2005, 183; Rosen 2005, 210-11), rather than the more immediate surroundings of Çatalhöyük. It appears from the phytolith morphology of ‘*Triticum dicoccum*’ that this crop was at least in part grown on dry land, and this has been interpreted as possible proof for this hypothesis (Rosen 2005, 210-11).

6.1.2 THE LOCATION OF ÇATALHÖYÜK

The idea that Çatalhöyük was located in an area that was unsuitable for agriculture is not completely convincing in all respects. First, Çatalhöyük is located in the centre of a large and active alluvial fan, large parts of which would have been flooded at regular intervals (Asouti 2005, 247). It seems difficult to accept that this area at large was not suitable for agricultural purposes. For Early Neolithic Greece it has been argued that sites were preferentially located on similar flood plains, indicating that such environments may have provided good farming opportunities (Van Andel and Runnels 1995; Johnson 1996).¹¹⁴ Second, although it is clear from the Çatalhöyük evidence that at least some of the cereals were grown on dry lands, it does not immediately follow that they were grown on the sandy ridges. It is not impossible that some form of water management was practiced in the near surroundings of the site, creating dry patches suitable for farming. Third, it is possible that cereals were of only secondary importance at the site, with tubers and pulses taking on a more prominent role (Molleson and Andrews 1996). These species tend to preserve less well, but are nonetheless documented in considerable quantities (Asouti and Fairbarn 2002, 185; Fairbarn *et al.* 2002, 44-5; Fairbarn *et al.* 2005, 173-4). Pulses in particular could have been well suited to the wet environment, as they could have been planted in late spring after the floods had receded (Asouti and Fairbarn 2002, 188 – note 19; Fairbarn *et al.* 2002, 49).

Whatever the precise characteristics of the type of agriculture practiced at Çatalhöyük, many specialists are convinced that the best farmlands seem to have been located at some distance from the site, and that the site was in a sub-optimal location (Asouti and Fairbarn 2002, 188 – note 19; Fairbarn *et al.* 2005, 183; Rosen 2005, 210-11). Neither is possible to explain the positioning of the site on the basis of landscape morphology: as far as we can tell there are no distinct morphological features that might have given the site a special prominence or meaning (Roberts *et al.* 1996, 39). If these arguments are accepted the location of Çatalhöyük in the landscape presents us with a problem.

One element that is important in this issue is to separate the initial reasons for settling at this particular spot from later motives for maintaining the settlement. It can be argued that the history of the site is of some importance here (*cf.* Baird 2002, 149). In the initial stages, Çatalhöyük was one of many small settlements in this region. In the subsequent period the site seems to have grown at the expense of other pre-existing sites in the region that disappeared during the Ceramic Neolithic period. Given these circumstances it could be suggested that social and ideological factors may have been important as well as economic and ecological factors for the initial formation of this

¹¹⁴ This model has been challenged by other archaeologists (Perlès 2001; 143).

Neolithic community (Hodder 2005, 6-12). No matter what the reasons for the original settling of the site were, it is clear that as the site grew, the reasons for continued occupation may have been different from the initial motives for choosing the locality, but it is also clear that the economic base of Çatalhöyük enabled the local community to grow to a population of thousands (§6.8.1).

6.1.3 ÇATALHÖYÜK AND OTHER SETTLEMENTS

The nature of Çatalhöyük and its relation to the surrounding landscape can also be approached on the basis of an intensive survey that was executed by a team from Liverpool University from 1995 to 1997 in the area surrounding the site, which will be published in the near future (Baird 1996; 2000; 2002). From this survey, the following picture emerges (Baird 2002, 145-51). Despite ongoing sedimentation of alluvial deposits during the Holocene, a process that must have buried numerous sites, a number of Epi-Palaeolithic and Aceramic Neolithic sites were found in this part of the Konya Plain. However, for the subsequent period, the Early Ceramic Neolithic, Çatalhöyük is the only site recognised in this part of the Konya Plain. The partially contemporary site of Pınarbaşı is located approximately 30 kilometres southeast of Çatalhöyük, and constitutes a campsite rather than a settlement (Watkins 1996; Baird 2004). Given that sites from earlier periods have been recognised, the absence of Early Ceramic Neolithic sites cannot be explained simply by the fact that other sites of this period may have been buried under alluvium. In the subsequent Early Chalcolithic period we find a marked increase in the number of sites, all of which are much smaller than Çatalhöyük.

The astonishing fact seems to be that Çatalhöyük is not located amongst a large number of smaller settlements, but seems to have been completely singular. This has important implications for the manner in which the settlement is perceived. It is not uncommon for researchers to classify the Çatalhöyük settlement as a 'town' or even a 'city' (Mellaart 1965b; Mellaart 1967; Jacobs 1969; Ülkekel 1999; Rosenberg 2003). However, a city (or town) can only exist in relation to a hinterland of villages, for which it provides a number of facilities and services in exchange for agricultural produce (Childe 1950; Roberts *et al.* 1996, 18-9; Smith 2003, 8-11). In a context where settlement differentiation is absent, the usage of concepts such as town and city based upon such a type of differentiation is problematic (§2.3.1).

Baird (2002, 148) has posited that the population from the earlier Aceramic Neolithic sites in the region may have aggregated at Çatalhöyük in the Early Ceramic Neolithic. If this scenario is accepted, it could be posited that the Çatalhöyük settlement may have acquired some sort of significance for people in the area, which enabled it to draw the inhabitants of other sites into its orbit (Baird 2002, 149). Why this occurred is impossible to determine. The reason why the site subsequently became the size it did may relate to the extraordinary attachment to localities of people manifested in the marked continuity of buildings in the Çatalhöyük settlement that will be discussed later in this chapter (§6.6.1), on the one hand, and the preference for living in a large local community rather than in smaller settlements, on the other. Such cultural preferences may account for the large size of the Çatalhöyük settlement, despite its being located in an empty landscape.¹¹⁵

In the later sections of this chapter it will be argued that this preference for aggregation at Çatalhöyük is found not only at the regional level, but also at the level of neighbourhoods within the settlement, within which groups were living in much closer associations than expected given their socio-economic way of life. The question how and why these aggregations occurred is one of the key issues of this thesis.

¹¹⁵ In the absence of such dispositions people will tend to spread in small settlements across the landscape, a way of life that is more practical from an economic perspective, because natural resources can be used more evenly and with less effort. Boserup (1965, 72) put it thus: "it is unlikely that a small agricultural population would concentrate voluntarily. In typical cases, a small population can obtain its food by a much smaller input of labour if, instead of crowding together on a part of the territory, they spread widely."

6.1.4 RESEARCH HISTORY

Çatalhöyük was initially recognised during a survey of the Konya plain in 1958. The site was discovered by James Mellaart, David French and Alan Hall. They were startled to find that this impressive mound, measuring 275 by 450 metres and standing 17 metres above the surrounding plain, was covered with Neolithic remains from bottom to top (Mellaart 1967, 27). These surveyors had discovered one of the largest Neolithic sites of the entire Near East (Moore *et al.* 2000, 5).

At that time Mellaart had already started an excavation project at the Neolithic site of Hacilar that would provide conclusive evidence for the existence of the Anatolian Neolithic (§1.2.1). After his excavations at Hacilar came to an end, Mellaart initiated a project at Çatalhöyük, which started in 1961, and continued in 1962, 1963 and 1965. It is important to stress the conditions under which these seasons took place. The seasons lasted between 1½ and 2½ months. The field team that participated in these excavations was of a small size, including no more than 12 members at most, augmented by Turkish workmen.¹¹⁶ Furthermore, the financial resources of the excavation were limited.¹¹⁷ Nonetheless, with the resources available to him, Mellaart managed to open up large areas and excavate a substantial number of buildings (approximately 4300 m² and 400 rooms were excavated).

It is my conviction that without the expedient pace of the 1960s excavations and the prompt publication of the results, Çatalhöyük would never have become the famous site it is today. This is an important consideration in light of the critiques of the Mellaart excavations one occasionally encounters (Cessford in Gérard and Thissen eds 2002, 229). However, one major drawback to the 1960s excavations should be mentioned at this point. Unfortunately, a final report dealing with the results of these campaigns has not been published. Such a final report would have added the necessary level of detail that is often lacking from the preliminary reports.

In 1993 a second project was started at Çatalhöyük, supervised by Ian Hodder. This project differs in a great number of respects from the earlier excavations. It is a large-scale project involving a substantial field team, often numbering over 80 participants,¹¹⁸ and with great financial resources (most of these resources derive from commercial sponsors). The ‘Çatalhöyük Research Project’, as it is officially designated, acts as a research institution bringing together teams from many countries, including the main Cambridge/Stanford team, as well as teams from Thessalonica (Greece), Berkeley (USA), Poznan (Poland), Istanbul and Konya (Turkey), and three British teams: KOPAL;¹¹⁹ the Çatalhöyük West mound team; and the Konya Plains Survey team.

The stated aim of the Çatalhöyük Research Project is “to provide the Turkish Ministry of Culture with a well planned heritage site” (Hodder 1996a, 1). Thus one of the main priorities of the project has been that of heritage management, involving preservation and non-destructive research as well as careful excavation in order to extract as much information as possible from minimal exposures. In this respect, the strategy employed is radically different from that pursued by Mellaart in the 1960s. The financial resources of the ÇRP allow for meticulous excavation practices involving elaborate documentation and sampling procedures and employing a suite of analytical methodologies such as micro-morphology, heavy residue analysis and chemical analysis, that allow for the extraction of a wealth of fine-grained contextual data to a degree that would have been inconceivable in the 1960s.

The first step in the strategy of the ÇRP was the implementation of non-destructive surface investigations. Between 1993 and 1995, an intensive surface survey was undertaken on the mound, using a battery of non-destructive techniques. The results of this initial stage of work have been

¹¹⁶ Excluding the government representatives the field team consisted of 5 members in 1961, 9 in 1962, 12 in 1963, and 8 in 1965.

¹¹⁷ In a letter Mellaart (dated 1/3/2002) estimates a total of £13,000 for all four campaigns, amounting to £3,250 on average for each campaign.

¹¹⁸ For example the field team of 2003 numbered about 97 people.

¹¹⁹ Konya Basin Palaeoenvironmental Research Programme.

expediently published (Hodder ed. 1996). In addition, projects were set up to investigate the setting of Çatalhöyük within the landscape. A team from the University of Liverpool undertook an intensive survey of the area surrounding the site, the results of which are now in the process of publication (for preliminary results see Baird 1996; 2000; 2002). A geological investigation of the landscape surrounding Çatalhöyük was undertaken by the KOPAL team (Roberts *et al.* 1996; 1999; in prep). Additionally, the renewed work at Çatalhöyük has led to excavations at the nearby contemporary site of Pınarbaşı, which were designed to contextualise Çatalhöyük and explore possible relations with that non-sedentary site.

The second stage of the ÇRP, lasting from 1995 to 2002, consisted of the detailed excavation and sampling of a very restricted number of buildings and a deep sounding. These excavations were undertaken by a number of teams and in various areas located across the site (§6.1.7). In these excavations, three buildings were completely excavated. More extensive excavations took place on the southwestern slope of the mound, in the location where Mellaart had excavated earlier. Most of the buildings excavated there were remnants of buildings left by Mellaart's team and thus only scant remains could be investigated (§6.1.10). Furthermore, in some cases buildings could be only partially excavated because they were located at the edge of the excavation area. Finally, a deep sounding was excavated in this area to investigate the earliest levels at Çatalhöyük (see Cessford 2001). In addition, the KOPAL team excavated an area at the edge of the mound and a series of test pits on the slope of the mound to investigate post-occupational erosion and sedimentation processes.

The 1995 to 1999 excavations campaigns executed by the Cambridge/Stanford and the KOPAL teams are being published in 2005 and 2006, in a series of four volumes (Hodder ed. 2005; in prep-a; in prep-b; in prep-c). The present study was enhanced considerably by the opportunity to work with the unpublished documents that are at the basis of these volumes.

A third phase of excavations was started in 2003. It has so far entailed the exposure and excavation of much larger areas, in order to understand the site at the level of the neighbourhood rather than the individual house. In the North Area of the site this has meant surface scraping of a large area measuring 40 by 40 metres, and subsequent excavations in a number of adjacent buildings. In the South Area a large shelter has been built, measuring some 45 by 27 metres. There also, excavation will be taking place in a series of buildings simultaneously. In general the pace of excavations has increased over the last two years, and in this process some of the sampling procedures and detailed administration used during the earlier stages of the project were reduced, in order to accommodate faster progress. Apart from the initial scraping and planning, the results of this third phase of excavation will not be incorporated in this study, because they await further processing, synthesis and publication, and the type of the data that I need are lacking for that reason.

6.1.5 EXCAVATION METHODS

The two projects that have been undertaken at Çatalhöyük differ in a great number of respects. The 1960s excavations were designed to obtain maximum exposures with limited resources. The data obtained in that project are of a general nature, but lack some of the fine resolution that is necessary for closer analysis. The present project at the site has endeavoured to extract a maximum of high quality data while focusing on small excavation areas. The two approaches can be labelled 'extensive' and 'intensive' excavation respectively. Many scholars tend to take a normative stance concerning these two approaches. In particular, in recent years it has become fashionable amongst some members of the new project to criticise the Mellaart excavations, and present his work as unreliable guesswork (Cessford in Gérard and Thissen eds 2002, 229). From my perspective, these critiques are both inadequate and irrelevant, for the following reasons.

First of all, excavations undertaken in the 1960s cannot be evaluated by comparison with the standards of present practices in archaeology. Instead, they should be compared to the state of research in those days. Anybody who cares to contextualise the 1960s excavations at Çatalhöyük

within their time will find that these excavations were in many ways of exemplary quality (De Contenson 1968, 72). That quality can be gauged from the prompt publications of preliminary reports, which are more informative than many final excavation reports written in that period, from the involvement of a large number of specialists in the project, and from the use of a series of techniques not normally part of archaeological practice at that time. At Çatalhöyük this included the usage of radiocarbon dating and analyses of the textiles, macro-botanical remains, faunal remains, chipped stone industries, metals, wood, pigments, minerals, and human remains. Finally, a recent re-analysis of the remnants of the 1960s sections has confirmed the soundness of Mellaart's stratigraphical divisions (Matthews and Farid 1996, 276-89).

Second, the critiques of 1960s excavations are in many respects irrelevant. I have already discussed the manner in which Mellaart opened up the field of research of the Anatolian Neolithic (§1.2.1). If it were not for his large-scale excavations at Çatalhöyük, and his prompt publication of his spectacular results in both scholarly and public formats, there would not be any research project at the site today. To illustrate this I will mention one small example: despite ten years of research at Çatalhöyük by the new project, not a single wall painting or moulding has been found that is comparable to the ones that Mellaart found, and yet those images make it possible to interest companies to sponsor the excavations. It is clear that Mellaart's extensive method of excavation was instrumental for the status the site has today.

In the four campaigns that Mellaart undertook at Çatalhöyük approximately 400 rooms were excavated. The actual digging was mainly performed by Turkish workmen, most of whom were experienced excavators, brought over by Mellaart from the Beycesultan excavations. The administration and coordination of the excavations was done by the British field team. Given that the number of rooms and the lengths of the seasons, it appears that on average 1.7 rooms were excavated per day.¹²⁰ The speed with which these rooms were excavated precluded the possibility of careful sampling, excavating building fills stratigraphically, or studying the renovations and modifications these structures went through. In the course of the excavations an enormous amount of information was obtained, but the spatial and temporal resolution of the evidence is often poor.

The data from the present excavations at Çatalhöyük are in many ways the reverse of those obtained in the earlier excavations. Meticulous excavation, sampling and documentation provide us with data of amazingly high quality, providing fascinating new insights into all kinds of phenomena. Only a few examples of such insights will be mentioned here. Detailed reconstructions of the subtle modifications and renovations that individual buildings went through can now be made, allowing us to study the diachronic developments of buildings (Cessford in prep-c). More careful methods of sampling have changed the ideas about the subsistence economy at the site considerably. For instance, in the Mellaart excavations the predominant meat source in the diet was thought to be cattle (Mellaart 1967, 223; Perkins 1969, 178). By contrast the data emerging from the new excavations at the site show that sheep and goat bones predominate (Martin 2001, 40; Martin *et al.* 2002, 200-1; Richards *et al.* 2003, 69). Micro-morphological, chemical, and heavy residue analysis of floors now makes it possible to delineate activity areas in buildings.

After an initial stage of surface investigations using a battery of approaches including both traditional and novel non-destructive methods, excavations were started by the ÇRP in 1995. It was decided to excavate without workmen in the trench, in order to increase control over the removal of archaeological deposits. The documentation method applied is the single-context recording method, which is the standard procedure in domestic British archaeology (Chadwick 1998). Each archaeological deposit, or unit, is sampled intensively, and documented on a form. The soil is sent for flotation, and if there is soil to spare, it is dry-sieved. This practice, in which each floor layer

¹²⁰ This index does not have any meaning other than a very crude indication of the speed with which excavations proceeded. Hidden in this figure is a large variability, with some rooms that were excavated with great care, using dental tools to uncover wall paintings, whereas other rooms were hardly preserved and could be removed very quickly.

has to be sampled and documented, has slowed down the pace of excavation considerably, especially given the fact that some areas in buildings may have as many as 40 floors (*cf.* Hamilton 2000, 123).

Another characteristic of the Çatalhöyük Research Project is the on-site presence of a large number of specialists working on the processing of the different find categories, and interacting on a daily basis with the field team about the interpretation of deposits and features, and the excavation strategy (Farid *et al.* 2000, 19-21).

The method of excavation practiced by the ÇRP is both expensive and slow. A clear example of the labour intensity of this approach is the excavation of building ÇRP.3.¹²¹ The excavation of this structure by a team from Berkeley took seven campaigns, involving a field team that was twice the size of Mellaart's. Due to the labour intensity of this approach only a limited amount of buildings have been excavated at Çatalhöyük in the new project. This has two major drawbacks. First, it is almost impossible, for the moment, to move beyond the level of the individual structure to that of the neighbourhood on the basis of the ÇRP data.¹²² Second, as has already been pointed out, no conspicuous works of art similar to those found by Mellaart have been found in the ÇRP, despite ten years of research. All the paintings and mouldings found so far are relatively unimpressive features in comparison to the corpus available from the earlier excavations. Due to the absence of these types of features, understanding the nature of Çatalhöyük imagery and symbolism has not become any easier.

It is apparent that two excavation projects at the site have produced two distinct sets of data for Çatalhöyük. It seems to me that in many ways these datasets can be used to complement each other, and that a full understanding of Çatalhöyük can only be achieved by combining both archives. It is therefore surprising that the Mellaart Archive has remained little used in the publications of the new project, although some exceptions exist (Hamilton 1996). In this study data from both excavations are incorporated in order to obtain a more complete picture of past practices at Çatalhöyük.

The Mellaart archives can be used to gain an understanding of the settlement as a whole and to study the variability and spatial patterning within Çatalhöyük. The reconstruction on the basis of the Mellaart archive is, by necessity, in the nature of a rough sketch, rather than a fine-grained picture. However, the data from the new project at the site can be used to obtain a more comprehensive idea of the dynamics of the development of individual buildings. Such a combination of the two excavation archives is not only crucial for my research, it is also of great importance for understanding Çatalhöyük in general. The Çatalhöyük Research Project is scheduled to last for another 15 years, but even in that long period of research it will not be possible to excavate as much as Mellaart did, because of the fact that modern excavations have to proceed at a much slower rate, in order to record more details and take more samples. That means that Mellaart's excavations will remain an important part of any reconstruction of Çatalhöyük.¹²³

6.1.6 REFLEXIVE METHOD AT ÇATALHÖYÜK

At this point it is necessary to reflect briefly on the 'reflexive' excavation method propounded by the Çatalhöyük Research Project. This methodology was initially proposed by Hodder in an article (1997), and subsequently an edited volume has been devoted to the subject (Hodder ed. 2000), in which members of the Çatalhöyük excavations clarify the details of the new approach. In these

¹²¹ In order to distinguish buildings excavated in the 1960s from those investigated in the recent excavations the latter are preceded by the abbreviation 'ÇRP'.

¹²² Some evidence for neighbouring structures is available for the South Area, but this is limited to a handful of buildings at most.

¹²³ Moreover, such an integration can serve as a test case for other archaeological sites in the Near East that have been subjected to large scale excavations in the past, where similar re-excavations may take place in the future, or are already happening, for example at Yümüktepe (Caneva 1999).

publications a post-processual excavation methodology is proposed, in which the role of the archaeologists is questioned. Hodder argues for an effort: “to go beyond a method which excludes and dominates, which separates description and interpretation as if description was mere data that could be objectively handed out to people to interpret subjectively” (1997, 694).

By contrast, a multi-vocal approach is adopted, in which multiple reconstructions of the past are possible. Launching his new approach, Hodder quotes the following view, voiced by a group of mother-goddess worshippers: “when you hand over the data to us, they have already been interpreted by you” (Hodder 1997, 694). In response, stakeholder groups are encouraged to take an active interest in the interpretation of the Çatalhöyük excavations. In order to facilitate this engagement with non-archaeologists transparency is enhanced both by freely providing ‘raw’ data from the excavations and by recording the process of excavation and analysis itself in order to show how the archaeologists engage with the material remains excavated, and in what manner they arrive at certain interpretations of those remains.

The methodology practiced at Çatalhöyük has been summarised in four principles: first, *reflexivity*; second, *contextuality*; third, *interactivity*; and fourth, *multivocality*. *Reflexivity* implies the need to be flexible about the methods and theories we use in the process of digging, and adjust that way of digging when necessary. *Contextuality* is about the ways in which artefacts, deposits, and structures are interpreted. That interpretation, it is claimed, must be contextual: a bone object from a dump layer should be interpreted in a different manner from one found in a burial. *Interactivity* has to do with communication, both within and without the excavation team. External communication is enhanced by the new possibilities to spread large amounts of information through the internet, enabling outsiders to ‘see for themselves’. Internal communication resides in the regularised communication of find specialists and excavators on matters of contexts and associations, so that contextuality can be achieved, and ideas and interpretations can be exchanged. Finally, *multivocality* is about enabling other voices to tell their stories on the basis of the data of Çatalhöyük, and involving those voices in the process of excavation itself.

Of the four principles of reflexive excavation methodology proposed by Hodder it is the idea of *multivocality* in particular that has come under attack, and many archaeologists would argue that the other three concepts are already part of archaeological practice. The critiques aimed at the *multivocality* concept are centred on the competence of archaeologists for making primary interpretations in the field. In a reply to Hodder’s Antiquity paper, Hassan (1997) has likened an archaeologist interpreting archaeological features to a doctor diagnosing a patient. In both cases specific knowledge is needed to see what is relevant, and how to proceed. Hassan writes: “if goddess-worshippers have the same legitimacy as archaeologists, why then go through years of schooling, field training, and a decade of experience before one can claim to be an experienced field archaeologist?” (Hassan 1997, 1025).

In his argument Hassan represents excavating as a technical practice. However, it is clear that in their engagement with material remains of the past, archaeologists bring to their excavations analytical frameworks that profoundly influence their observations. The issue at stake is that these paradigms are generally not imbued with politics, as some post-processual archaeologists would have it (Tilley 1989; Shanks and Tilley 1989, 42). Most of the observations in the field are relatively unproblematic (Andrews *et al.* 2000, 526; Yarrow 2003). The length of a loam wall is the same for archaeologists of all theoretical denominations, but it is more difficult to distinguish the outlines of that wall for a non-archaeologist.

In my view, the difference between Hodder’s and Hassan’s view of archaeology is not as pronounced as is suggested in their polemics. As a way to make archaeologists avoid the pitfalls of power and politics in interpreting their data, Hodder makes a move that is somehow familiar. Rather than calling a feature a hearth, the term ‘fire installation’ is used at the Çatalhöyük excavations “precisely because we recognise the difficulties of ‘identification’ of such features, including the gender biases involved” (Hodder 1998c, 215). It is pertinent to ask whether the concept ‘fire installation’ is more neutral or objective than ‘hearth’? Interestingly, in a later stage of

the ÇRP the concept ‘fire installation’ was abandoned by the ÇRP in favour of the more specific words like fire spot’, oven and hearth (Farid in prep). With regard to such matters it is illuminating to compare Hodder’s initial concern with ‘the already interpreted data’ with a more recent statement regarding the Goddess community: “I argue that Goddess or other groups sometimes make claims that cannot be supported by the evidence.” (Hodder 2000, 11).

While it is clear that a multi-vocal approach to archaeology is difficult to defend at the level of theory, involving an uneasy balance between extreme relativism and authoritative science, it is also clear that archaeology needs to open up to wider audiences in order to avoid creating a past that serves to legitimise the ideological needs of states and powerful interest groups (Hamilakis 1999).

6.1.7 EXCAVATION AREAS AND BUILDING DESIGNATIONS

In the course of the two excavations at the site, the Çatalhöyük Archives have reached a bewildering complexity. In this section I will discuss the Area designations that have been used by the two projects. Mellaart’s excavations were located along the western slope of the southern eminence of the site. In the general area investigated in the 1960s, several trenches were opened that gradually merged into one overarching exposure as excavations proceeded. These trenches were indicated with capital letters, and included, as far as can be ascertained, trench A, B, E, and F.¹²⁴ The trenches were not specified on an overall plan and seem to have been of irregular outlines and dimensions. However, from the building designations, we can infer approximately where these areas were located (see fig. 6.2).

The Çatalhöyük buildings were designated by Mellaart in the following manner. A typical building designation would be E.VIB.31, which consists of three components: first, the excavation area is designated, second, the building level, and third, the building number. In cases where buildings reappear in the previous or subsequent building levels the same building number was often used to designate it, and only the building level was changed.

This system of designation is gradually superseded by a simpler system in which the area designation is omitted.¹²⁵ To avoid confusion Mellaart retained the building numbers for Area E, his largest area, but the buildings from other areas were renumbered when necessary. The clearest example are the buildings from levels IV, V, VIA and VIB, that were located in Area A, all of which were now renumbered to sixty-something. Thus, for example building A.V.1 became V.61.¹²⁶ However, this re-labelling was not completely carried through. For example, buildings from level II retained their Area A and B designations. In Area F the buildings from level V were labelled as ‘F.V.1’ etc., but the level VI building in the same areas were labelled VI.70-80 (Mellaart 1966, 172), without an area designation.

The ÇRP excavated in different areas across the mound (fig. 6.3). One of the main excavation areas is located in the part of the mound previously excavated by Mellaart.¹²⁷ This area was excavated by the Cambridge team from 1995 to 1999. Initially this area was called the ‘Mellaart Area’, but in 1999 it became the ‘South Area’. To the east of the South Area, excavations of building ÇRP.10 were undertaken in the ‘Summit Area’ by a Greek team from Thessalonica in 1996 and 1997. In 2003 the excavation of this building was taken over by the Cambridge team, at

¹²⁴ Presumably trenches C and D must also have existed but these designations were probably abandoned at an early stage. Area D is not mentioned in the reports, whereas one alabaster head is reported to derive from a level 3 building in Area C (Mellaart 1962, pl. 9-d; Hamilton 1996, table 12.1), a building that is neither documented on the plans, nor discussed in the preliminary reports.

¹²⁵ Mellaart has not provided a table in which old and new designations were juxtaposed. However, the ‘re-labelling’ can generally be reconstructed by carefully studying the documentation in his reports.

¹²⁶ The following buildings were re-labelled in this manner. A.V.1 → V.61; A.VI.1 → VIA/B.61; A.VI.4 → VIA/B.63; A.VI.5 → VIB.65; A.VI.66 → VIA/B.66.

¹²⁷ To be more precise this was part of Mellaart’s Area E, located over buildings 1, 2, 5, 6, 7, 8, 9, 10, 12, and 14.

which time the area was re-labelled 'South Summit Area.' Both of these areas are now protected by a large structure called the 'South Shelter'. To the northeast of the South Summit Area a third trench was opened, called the 'TP Area.' The TP Area is excavated by a team from Poznan, Poland. This team started their excavations in 2000 and this project is scheduled to last until 2005.



Figure 6.2: Approximation of Mellaart's Areas at Çatalhöyük, and the Çatalhöyük Research Project South Area and South Shelter (coordinates according to Çatalhöyük Research Project coordinate system).

On the northern summit of the mound a large plan was obtained in 1994 and 1995 using the technique of surface scraping (Matthews 1996). On the basis of the results of the surface scraping a promising building was selected for excavation, and was also excavated by the Cambridge team. This area became known as the 'North Area' and was excavated from 1995 to 1998, during which buildings ÇRP.1 and its predecessor building ÇRP.5 were investigated.

To the southeast of this area another building, ÇRP.3, has been excavated by a team from Berkeley, California. Their area was designated the BACH¹²⁸ Area, and the excavations lasted from 1997 to 2003, and have now reached their completion. In 2003 a new scrape area called '4040' was opened on the northern summit, located south of the BACH Area. In the 2004 and 2005 seasons a series of buildings were excavated in this area, and these excavations will continue in future years.

Apart from the teams working on the northern summit and the southwestern slope of the mound mentioned above, there are two additional excavation teams working at Çatalhöyük. The KOPAL team has excavated an area at the edge of the site, and a series of test pits on the northern slope of the mound, collectively labelled the 'KOPAL Area' in 1996, 1997, and 1999. Another team has been excavating on Çatalhöyük West from 1998 to the present.

¹²⁸ Berkeley Archaeologists at Çatalhöyük.

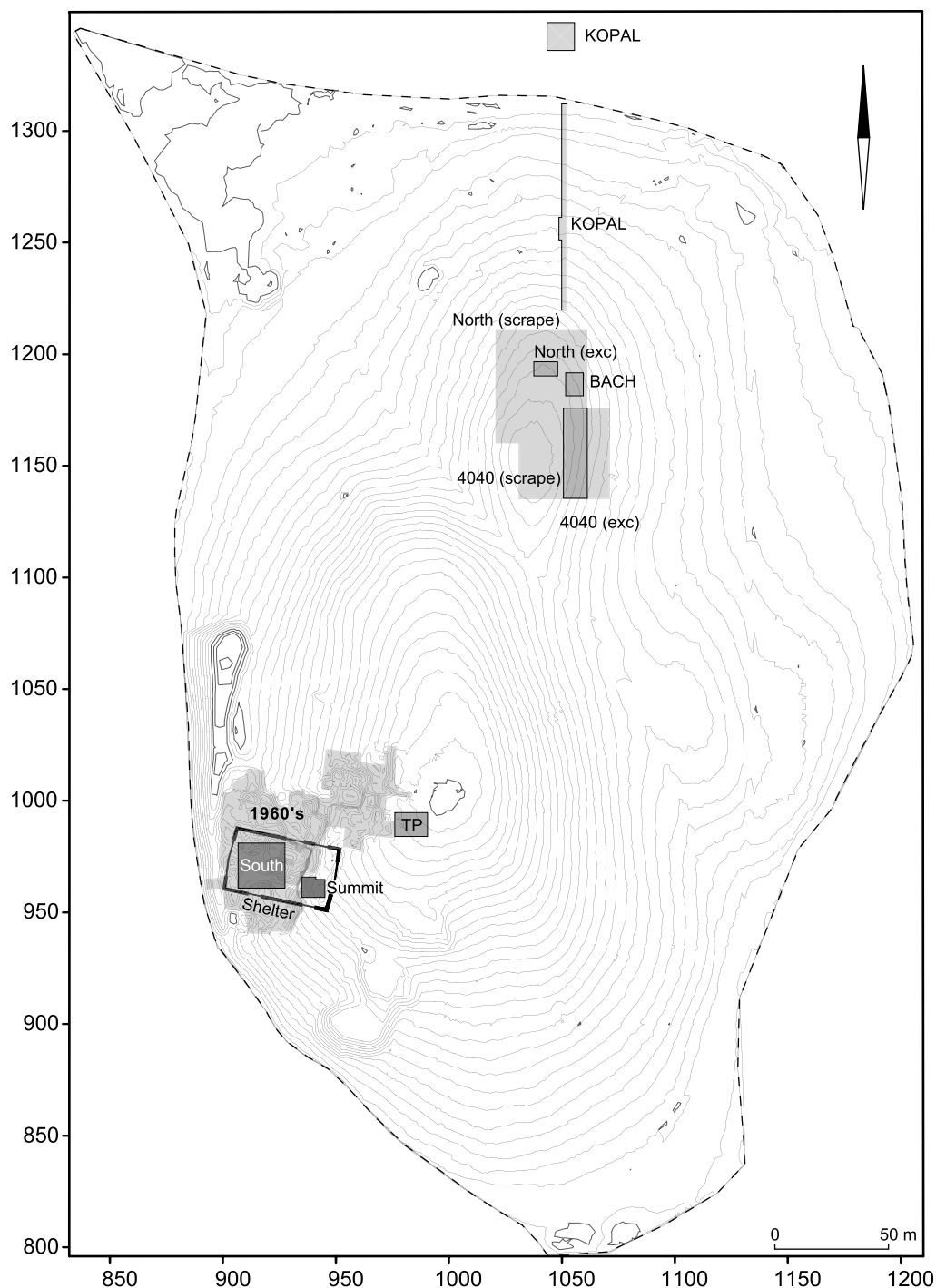


Figure 6.3: Excavation Areas of the Çatalhöyük Research Project (based in part on figure 5.2 in Pollard *et al.* 1996).

6.1.8 STRATIGRAPHY

During the 1960s campaigns at Çatalhöyük, Mellaart distinguished 15 building levels, numbered top to bottom 0 – XII. Level VI was later subdivided into VIA and VIB, VIA being the more recent occupation. Levels III-I were excavated near the summit of the mound in Areas A and B (fig. 6.2), level 0 consists of a few isolated wall remnants in the same area. Levels V, VIA, VIB, and VII

were investigated over large exposures in Areas E and F (fig. 6.2). Level V was located just below the surface in Area E and was poorly preserved, but preservation was better in Area F. By contrast to the poor preservation of the level V buildings in Area E, many of the buildings of levels VIA and VIB in this area were burned and have provided a wealth of data. The division of level VI into two sub-phases is a complicated issue that will be dealt with in detail later in this section. The preceding layer VII is the lowermost building level excavated by Mellaart that was investigated across a large exposure. Level VIII was investigated over a much more restricted area in the southern part of Area E. Two deep soundings were made below level VIII. The first was excavated in 1963 and was located below buildings VIII.1 and VIII.10, revealing predecessors in levels IX and X. The second deep sounding was made in 1965, below buildings VIII.29 and VIII.31, and exposed building remains from levels IX, XI and XII (in level X this area was a midden). In both soundings the exposures were of limited size revealing no more than three contemporaneous structures.

Mellaart's stratigraphy of Çatalhöyük developed considerably over the course of the 1960s excavations and several readjustments were made as new data emerged in the course of the ongoing project, in which buildings were re-assigned to other building levels. I will briefly discuss these modifications. Until the 1963 campaign the stratigraphy was not altered, but after that it was decided to alter the relative position of some buildings previously assigned to levels VII and VI (Mellaart 1964, 40).

Level VI was subdivided at this point into VIB (older sub-phase) and VIA. It was stated that the buildings of level VIA were all burnt, and contained pottery, whereas only some of the level VIB buildings were burnt and these buildings lacked pottery. In this process of subdividing level VI some buildings were assigned exclusively to VIB¹²⁹ or VIA,¹³⁰ but the majority of buildings were drawn on the plans of both VIB and VIA.¹³¹ This later group of buildings was drawn for the most part with identical ground plans and floor elevations on both plans, suggesting that they were 'generic' level VI, rather than VIB or VIA. Given these circumstances it seems that the VIB/VIA distinction applies to only a minority of the buildings involved, rather than representing a complete 'redevelopment' of the area. In the course of level VI some buildings seem to have been altered, whereas others remained in use. These alterations took the form of: first, abandonment and transformation into midden areas; and, second, renovation and/or rebuilding. These modifications of individual buildings dispersed over the excavated area were then lumped by Mellaart into 'level VIA', but it is far from clear whether they actually represent a single horizon.

Subsequently, in the 1966 report it was stated: "it now appears that level VI shows two phases of building only in the houses. Those shrines built in level VIB that were still in use in VIA were remodelled, but not rebuilt." (Mellaart 1966, 166). This argument seems inconsistent, because many of the buildings that are identical on the VIB and VIA plans are not considered to be shrines by Mellaart in his designations.¹³² Moreover, during the final 1965 campaign at Çatalhöyük Mellaart excavated a group of buildings in Area F¹³³ that were simply labelled 'level VI' without further specification (Mellaart 1966, 172), which do not seem to have been affected by fire. In the

¹²⁹ The following eleven buildings/rooms were reassigned to VIB at this point: E.VI.13→ VIB.13; E.VI.15→ VIB.15; E.VI.16→ VIB.16; E.VI.21→ VIB.21; E.VI.22→ VIB.22; E.VI.23→ VIB.23; E.VI.26→ VIB.26; E.VI.28→ VIB.28; E.VI.34→ VIB.34; E.VI.35→ VIB.24b; A.VI.5→ VIB.65.

¹³⁰ The following two buildings/rooms were reassigned to VIA at this point: E.VI.6→ VIA.6; E.VI.19→ VIA.19; E.VI.30→ VIA.30; E.VI.33→ VIA.33.

¹³¹ The following 23 buildings/rooms occur on both the VIA and VIB plans in the 1964 report: VIB/A.1; VIB/A.2; VIB/A.3; VIB/A.4; VIB/A.5; VIB/A.7; VIB/A.8; VIB/A.10; VIB/A.11; VIB/A.12; VIB/A.14; VIB/A.17; VIB/A.18; *VIB/A.20*; *VIB/A.24(a)*; *VIB/A.25*; *VIB/A.27*; *VIB/A.29*; *VIB/A.31*; VIB/A.32; VIB/A.61; VIB/A.63; and VIB/A.66. The buildings represented in italics diverge in their VIB and VIA plans and elevations, the others are identical for levels VIA and VIB in the 1964 report.

¹³² Buildings VIB/A.2; VIB/A.3; VIB/A.4; VIB/A.5; VIB/A.18; VIB/A.32; VIB/A.63; VIB/A.66.

¹³³ Buildings VI.71; VI.72; VI.73; VI.74; VI.75; VI.76; VI.77; and VI.80.

1967 monograph Mellaart likewise designates many buildings as level VI, rather than VIB/VIA, indicating that the distinction was often not easy to draw (Mellaart 1967, 81, 102).¹³⁴

Similar problems seem to have arisen during Mellaart's final excavation seasons concerning the delineation of levels VII and VIB. A group of buildings formerly assigned to level VII (in the 1962 report) were reassigned to level VIB in the 1964 report (Mellaart 1964, 40).¹³⁵ Subsequently, in the 1966 report, a group of level VIB buildings were reassigned to level VII.¹³⁶

It appears that the distinctions between levels VII, VIB, and VIA became increasingly difficult to draw in the course of the 1960s excavations, a point that emerges from the many re-assignments of buildings from one level to the next, and the conceptual problem of distinguishing sub-phases within level VI that are valid for some buildings only. It is evident that these problems became more pronounced with the expansion of the excavated area, in the course of which it became increasingly difficult to accommodate the data into the existing stratigraphy. This can be taken to confirm the idea that unproblematic stratigraphies of vernacular buildings are only possible in soundings of limited extent (§3.5.1).

The problem here is not in the quality of the fieldwork, but rather in a conceptual framework that is geared at isolating discrete occupation phases in vernacular village architecture. It is important to keep in mind that a stratigraphical level is at best a simplification of a complex series of irregular processes and changes that constitute the village at any one time, and at worst a meaningless pastiche of structures that never had any temporal relation to one another.

At this conceptual level Mellaart's stratigraphy has also been criticised by members of the ÇRP. It has been argued that the buildings represented on Mellaart's plans cannot be proven to have existed simultaneously, and that in some cases buildings belonging to different levels may have functioned contemporaneously: "The recent excavations have demonstrated that levels do not form absolutely contemporary events as individual structures have their own unique life histories and that a degree of overlap between levels is probable." (Cessford 2001, 722).

However, as a heuristic tool and an approximation of contemporary horizons Mellaart's stratigraphy has been vindicated. In the initial stages of the ÇRP the extant profiles in the Area excavated by Mellaart were cleaned, drawn and analysed. From this it was concluded that on the whole Mellaart's stratigraphical divisions can be corroborated, even if some problematic details remain (Matthews and Farid 1996, 287-8). Thereafter the results obtained in the present excavations have been fitted into Mellaart's pre-existing stratigraphy (Hodder and Cessford 2004, fig. 1). Thus, the discussion of the South Area is organised along Mellaart's stratigraphical divisions and buildings and deposits are on a level-by-level basis (Farid in prep). Further, Mellaart's stratigraphical sequence was expanded in a deep sounding that was excavated below level XII buildings.¹³⁷ The deposits in this sounding were designated 'Pre-level XII.A to E,' with A being the most recent (Cessford 2001). The strata found in the Summit and TP Areas have also been tied in with the Mellaart sequence, to level V and level II / I respectively, which is possible because they are located in an area directly adjacent to where Mellaart excavated.

The excavated buildings and deposits in the North, BACH, and 4040 Areas, that are located on the northern summit of the mound, could not be directly connected to Mellaart's stratigraphical sequence. Due to the fact that these excavation areas cannot be linked physically to the area in which Mellaart excavated, synchronisations are based on indirect evidence: on comparing pottery and chipped stone industries to those from the Mellaart sequence. In this manner the North, BACH, and 4040 Areas can be approximately tied in with the general sequence.

¹³⁴ In the 1967 publication buildings 66 and 67 were transferred from generic level VI to VIA (Mellaart 1967, 58-9), but this is not discussed in any of the reports.

¹³⁵ The following buildings were transferred: E.VII.→ VIB.5; E.VII.1→ VIB.12; E.VII.2→ VIB.6; E.VII.3→ VIB.35 and VIB.36.

¹³⁶ Buildings VIB.45, VIB.31 and VIB.29 were reassigned in this manner.

¹³⁷ This deep sounding is located in approximately the same area as Mellaart's 1963 deep sounding.

The problem with these synchronisations is that they can only be applied tentatively. Pottery is relatively scarce, and cannot be dated accurately, because forms and wares develop very gradually throughout the Çatalhöyük sequence. Nonetheless, Last (1996, 132) has tentatively assigned the occupation on the northern summit to levels V and VI, or possibly even earlier than that, on the basis of the characteristics of the shards found in this area. A similar estimate was made on the basis of the chipped stone artefacts collected on the northern summit. The chipped stone was dated on the basis of the proportion of blades to flakes. That index suggested that the North Area should be dated to pre-level V, most likely to levels VI or VII (Conolly 1996, 191).¹³⁸ This dating of the northern summit occupation suggests that during levels VII and VI the occupation of Çatalhöyük was at its most dense, and that later on the occupation of the site was more restricted (Mellaart 1966, 172; Matthews 1996, 85).

The problem of the synchronisation of the excavation areas on the northern summit and of the dating of the different buildings in this area relative to one another will hopefully be solved to some degree in the future by means of radiocarbon dates of short lived organic samples (Göktürk *et al.* 2002). With a reliable series of short-lived AMS¹³⁹ dates from good secure contexts it should hopefully become possible in the future to accurately date the period in which a building was in use, and to determine relations of precedence between neighbouring structures.

6.1.9 ABSOLUTE DATING AT ÇATALHÖYÜK

Mellaart was amongst the first Near Eastern archaeologists to adopt a systematic programme of radiocarbon dating.¹⁴⁰ He took 27 samples during his excavations, most of which were charcoal. Generally speaking there is a good correspondence between the stratigraphy and the dates obtained: the samples from more recent layers produce more recent dates. However, some radiocarbon dates diverge substantially from this correlation (especially P-1374, P-779, and P-775). At least in some cases, these anomalies seem to have been caused by the 'old wood problem', for example the problematic P-775 date was obtained from the core of a tree that was 576 years old when it was cut (Newton and Kuniholm 1999, 531).

With the advent of the AMS radiocarbon dating method it has become possible to date small short-lived samples from secure contexts, which will enhance the reliability of the radiocarbon dates considerably. To date, 59 dates have been published from the new excavations,¹⁴¹ and with the exception of two samples these are all charred seeds (Cessford 2001; Thissen 2002a, 305-6; Göktürk *et al.* 2002). In addition, the work of Newton and Kuniholm on Juniper trees from Çatalhöyük has made it possible to calibrate the obtained dates against a tree-ring curve (Kuniholm and Newton 1996; Newton and Kuniholm 1999; Kuniholm and Newton 2002).¹⁴² Finally, two loam

¹³⁸ These stratigraphical correlations on the basis of artefact assemblages seem to be more or less borne out by the recent radiocarbon dates obtained from buildings 1 and 3 located on the northern eminence (Göktürk *et al.* 2002, 410).

¹³⁹ Accelerator Mass Spectrometry.

¹⁴⁰ The technique of determining age by analysing C14/C13 isotopes was only developed in 1949, and its potential was realised in archaeology in the 1950s and 1960s. Newton and Kuniholm (1999, 528) state: "only a decade after the discovery of radiocarbon [...], the fact that twenty-four representative samples were retrieved [...], is a tribute both to Mellaart's foresight and to his appreciation of the potential of the radiocarbon method."

¹⁴¹ A further 30 radiocarbon dates will be published in the near future (Cessford prep-a).

¹⁴² It has been argued that through the use of Bayesian statistics it is possible to enhance the accuracy of radiocarbon dates (Cessford 2001; 2002). However, the use of Bayesian statistics, in which stratigraphical divisions are used to group dates and perform calculations, seems highly suspect to me. The basic tenet of the method is that the stratigraphy is sound and that the samples taken are reliable. In my view, both assumptions should be tested against the resulting dates rather than simply assumed. The Bayesian statistics method of refining the resolutions of radiocarbon dates is an example of circular reasoning and seems highly problematic (*cf.* Cessford 2002, 27-8).

slabs have been dated with OSL,¹⁴³ arriving at dates very similar to the radiocarbon dates, but of much poorer resolution.

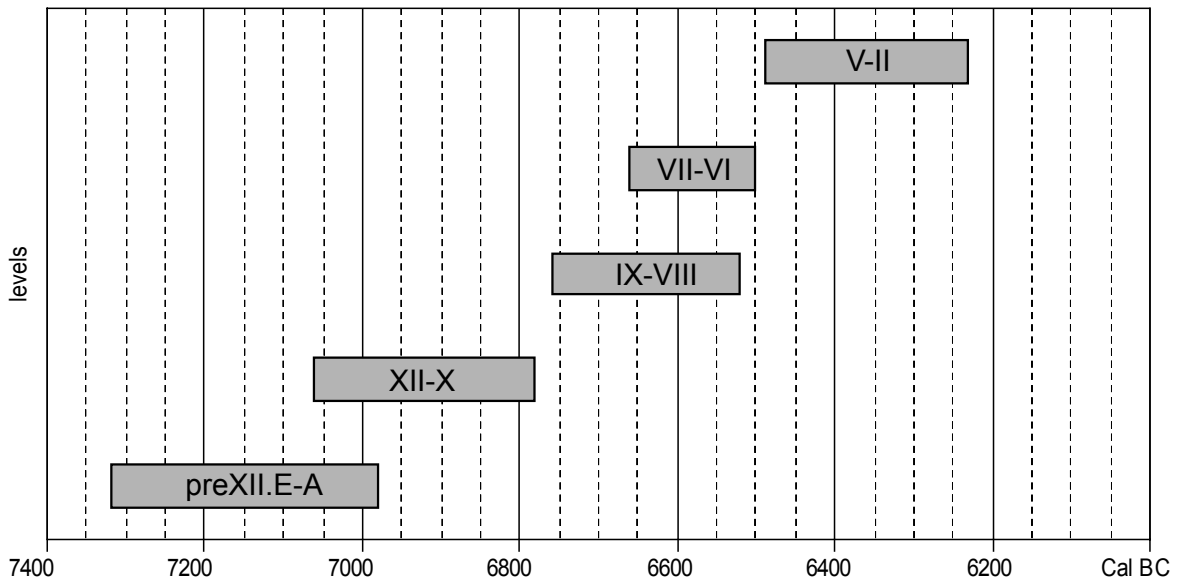


Figure 6.4: Simplified overview of calibrated radiocarbon ranges of grouped Çatalhöyük levels at the two sigma range (based in part on Cessford in prep-a).

Combining the radiocarbon dates from both the Mellaart excavations and the ÇRP, Cessford has drawn up a revised chronology for the stratigraphical sequence of Çatalhöyük (see fig. 6.4; Cessford 2001; 2002; Hodder and Cessford 2004, fig. 1; Cessford in prep-a). On the basis of this analysis the stratigraphical phases of Çatalhöyük can be more accurately dated than before, to approximately 7300-6000 calibrated BC. The sequence can be subdivided as follows ‘pre-level XII.E’ to level X 7300-6800 Cal. BC, Levels VIII-VII 6700-6500 Cal. BC, level VI ca. 6500-6400 Cal. BC, and levels V-II 6400-6000 Cal. BC (Hodder and Cessford 2004, fig. 1; Marciniak personal comment 2004).

The sequence at Çatalhöyük spans some 1400 years and can be subdivided into three culture historical horizons (§1.3.2). First, the deep sounding levels pre XII-D/A can be assigned to the final Aceramic Neolithic of Central Anatolia. The deposits excavated in the deep sounding are outside the settlement, and no building remains were found. In the absence of other types of evidence the culture history of this period at Çatalhöyük can mainly be studied on the basis of chipped stone typologies (Carter *et al.* in prep). What is remarkable is that evidence was found for lime burning, but that floors of this material are completely absent from the later building levels at the site, suggesting that the associated buildings of this period differed from those of the Ceramic Neolithic (Matthews 1999).¹⁴⁴

Levels X-VI at Çatalhöyük can be assigned to the Early Ceramic Neolithic, and will be referred to as the ‘early levels’ in this study. They can be contrasted to levels V-I, which belong to the Late Ceramic Neolithic, and that will be labelled the ‘late levels’. The early and late levels at Çatalhöyük differ in a great number of respects, although the break may not be as sharp as initially

¹⁴³ Optical Spectrometry Luminiscence.

¹⁴⁴ The artefact category of ‘white ware’, which consists of vessels made of lime and is found in the Fertile Crescent in sites dating to the PPN-B period (Akkermans and Schwartz 2003, 81), is so far completely absent in Central Anatolia. In the 2004 season at Çatalhöyük a plastered skull was found (Boz and Hager 2004), but the type of material used for this plaster remains to be investigated.

suggested (Düring 2001; 2002). These changes occur in lithic industries (Conolly 1999b), figurine typology and gender (Hamilton 1996, 225; Voigt 2000, 287), and ceramic traditions (Mellaart 1966, 170; Last 1996, 118). Later in this chapter I will discuss changes in the wall painting motifs in the early and late levels (§6.4.10; Mellaart 1967, table 13; Voigt 2000, 287), in the moulded features and installations (§6.4.11; Todd 1976, 50), in the configuration of settlement space (§6.9.2-4), in the value attached to building continuity (§6.6.1) and in the ways in which social collectivities were constituted (§6.6.1; Düring 2001).

6.1.10 THE ÇATALHÖYÜK DATABASE

Çatalhöyük is a key site for the subject of this thesis. Large horizontal exposures have been obtained at the site that allow us to study the organisation of space at the level of the neighbourhood rather than that of the individual building. Diachronic evidence facilitates the analysis of the development of neighbourhoods and individual buildings through time. Finally, a large amount of contextual evidence on the presence of features found within buildings is available at Çatalhöyük, which makes it possible to study the variability between buildings in the settlement both at the synchronic level and diachronically.

There are also a number of drawbacks to the data from Çatalhöyük, however, as has already become apparent in the sections on excavation areas and stratigraphy. A first problem consists of the fact that the two projects undertaken at the site have produced radically different perspectives on the site, and it is often difficult to integrate the two archives. The point that different excavation styles create different archives, which may occasionally be incompatible, has been made with reference to the different teams working within the present project at the site (Tringham and Stevanovic 2000), but this incompatibility is much more pronounced when comparing the radically different projects pursued by Mellaart on the one hand, and Hodder on the other.

Both the Mellaart and ÇRP Archives have their difficulties, although it is fair to say that the Mellaart Archives are, by comparison, far more problematic. Focusing first on the new excavations, it is clear that the ÇRP is a large ongoing project, and consequently many of the results obtained await further assessment, integration and synthesis. It is true that much of the primary information from the excavations is available on the Çatalhöyük website and in the archives on site and in Cambridge, but these are not substitutes for syntheses.

The data consist of primary records fragmented over a number of different archives (unit sheets, space sheets, feature sheets, photographs, video tapes of discussions, excavation diaries, plans, drawings, skeleton sheets, botanical and faunal records, finds processing documentation), many of which are difficult or impossible to access from outside. Due to the use of the 'single context recording method', in which the main administrative unit is the individual deposit, and the absence of integrative archives, such as composite phase plans or field diaries, that link the different types of information, it is often difficult to relate the various types of data to one another.

On the basis of the archives available, relatively simple questions, such as how many building phases were distinguished in a specific building and what are the related features and finds of each building phase, are difficult to investigate. Moreover, the integration of the primary archives into a synthesis is not a straightforward matter, and involves making a critical judgement of the evidence for which those that excavated these remains are best positioned. For instance, the sequence of building ÇRP.1 was altered several times, and the writer of the final report claims that the final synthesis cannot be directly grounded in the primary archives (Cessford in prep-c).

A related problem with the coming to grips with the results from the Çatalhöyük Research Project is that most publications focus on very specific topics and are difficult to bring together in the absence of synthetic overviews (Conolly 2000). This is perhaps to be expected given the scale of the project and the involvement of a large number of specialists and teams, but it presents a major obstacle for synthetic studies such as the present one.

These problems with the ÇRP data will probably be solved in the near future, with the publications of the excavation reports. A first final report has already been published (Hodder ed.

2005), and three more volumes will appear in the coming two years (Hodder ed. in prep-a; in prep-b; in prep-c). These volumes present the results of the Cambridge team excavations in the North and South Areas in the period from 1995-1999, and will be of immense value for our understanding of the site. Another publication of the same sort is being prepared for the BACH Area.

I was fortunate enough to be able to work with unpublished manuscripts of the 1995-1999 seasons of the Cambridge team, and this has been of great importance to my analysis. In addition, by working with the project archives on site during excavations and during a six-week stay in Cambridge in 2003, I was able to access information that is not available to the public at large. The results obtained by other teams in those years in the Summit, BACH and TP Areas, and the results of post-1999 excavations await post-excavation analysis and cannot be taken into account in this study.

In comparison with the excavations carried out by Mellaart, those of the ÇRP are rather restricted in volume, although the scale of excavations was expanded considerably after the 2004 season. To date about 50 buildings have been investigated at the site by the various teams of the Çatalhöyük Research Project. This number seems impressive, but only for a few buildings were synthetic reports available at the time of writing. Buildings 42 to 50 were excavated in the 2004 campaign. Eleven buildings do not surface in the most common sources, such as the archive reports and the plans produced by the project.¹⁴⁵ Five buildings are post-Neolithic in date, belonging to the Chalcolithic, Hellenistic or Roman periods.¹⁴⁶ Most of the remaining buildings were only partially excavated, either because they had earlier been investigated by Mellaart, or for practical reasons, for example when a building was only partially located within a trench or because excavations are in progress.¹⁴⁷ To these buildings many excavated spaces could be added, which are parts of buildings that were not completely excavated. In total only four Neolithic buildings have been completely excavated, namely buildings ÇRP.1, ÇRP.2, ÇRP.3, and ÇRP.10. At present, synthetic reports are available for ÇRP.1 and ÇRP.2.

From this summary of the extent of the ÇRP excavations, it is evident that the data from this project cannot be used to study building variability, nor the manner in which buildings were part of the larger settlement. The fact that only a few buildings have been completely excavated by the ÇRP is offset by the resolution of the data on those buildings, allowing us to come to grips with the intricate dynamics of how Çatalhöyük buildings developed, bringing in detailed, fine-grained evidence. In this respect the ÇRP archives are an essential ingredient to rectify the somewhat static and mechanical picture emerging from the Mellaart archives. A large number of issues on the nature of the buildings of Çatalhöyük can now be clarified on the basis of the research by the ÇRP. For example, we can mention the intricate nature of plaster activities, the renovation and reconstruction of internal features, the redevelopments and renovations of complete rooms, the manner in which burials were undertaken, and chemical and the micro-artefactual differences of certain parts of the floors. All these phenomena and others can now be monitored with much greater resolution on the basis of the ÇRP data.

One other element from the Çatalhöyük Research Project that will be used in this chapter in a more restricted fashion consists of the scrape plans that have been obtained for the northern summit of the Çatalhöyük mound. By removing only the uppermost ten to twenty centimetres of the soil in this area, extensive plans were obtained of the Çatalhöyük settlement, although of a highly problematic nature. During the initial campaigns in 1993-95 at Çatalhöyük, an area of 1900 m² was opened up on the northern summit (Matthews 1996), and in the 2003 campaign an adjacent area was scraped measuring 1600 m² (Lyon and Tailor 2003).

¹⁴⁵ ÇRP.19; ÇRP.26; ÇRP.27; ÇRP.28; ÇRP.29; ÇRP.35; ÇRP.36; ÇRP.37; ÇRP.38; ÇRP.39; and ÇRP.40.

¹⁴⁶ ÇRP.25; ÇRP.30; ÇRP.31; ÇRP.32; and ÇRP.41.

¹⁴⁷ ÇRP.4; ÇRP.05; ÇRP.06; ÇRP.07; ÇRP.08; ÇRP.09; ÇRP.11; ÇRP.12; ÇRP.12; ÇRP.13; ÇRP.14; ÇRP.15; ÇRP.16; ÇRP.17; ÇRP.18; ÇRP.20; ÇRP.21; ÇRP.21; ÇRP.22; ÇRP.23; ÇRP.24; ÇRP.33; and ÇRP.34.

These broad exposures provide an indication of the manner in which the neighbourhoods at Çatalhöyük may have been organised. However, the scrape plans should be treated with due caution (see fig. 6.5). Although in some level parts of the mound one may sometimes arrive at a coherent plan that seems to represent a discrete phase of occupation, close analysis of these plans often reveals many problems (§5.5.1).

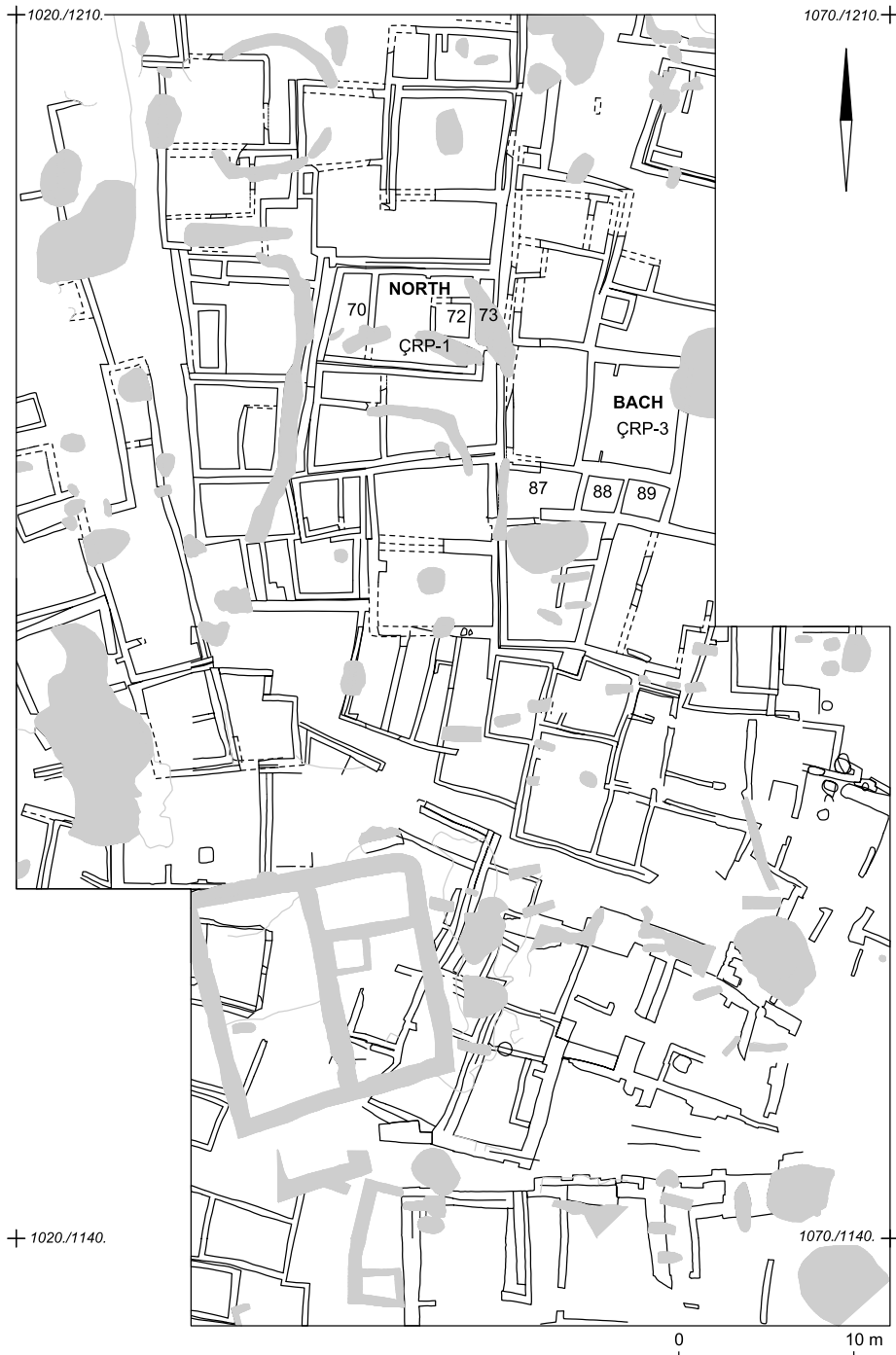


Figure 6.5: Combined scrape areas (North and 4040) on the northern summit of Çatalhöyük (post-Neolithic structures and disturbances in grey).

Both in the North and the adjacent 4040 scrape areas it is in many cases difficult to determine the outer limits of a room, and to which buildings specific rooms belong. These kinds of problems are especially pronounced in sloping areas, where the scrape methodology was much less successful in obtaining coherent plans. In effect, the scrape plans at Çatalhöyük represent a palimpsest of Neolithic buildings of various age, midden deposits, burials of both Neolithic and later periods, and all kinds of post-Neolithic features cutting through earlier deposits. Furthermore, Mellaart's excavations have demonstrated that on the slopes of the mound contemporaneous structures were built in terraces, which complicates explorative research on the surface in sloping areas considerably.

Despite these problems with the scrape evidence the data from this area will nonetheless be used, simply because it provides the largest plan we have at Çatalhöyük, and it constitutes crucial evidence for an understanding of the spatial configuration of the Çatalhöyük settlement. Again, there is a trade-off between the scale of the analysis on the one hand, and the resolution and quality of the data on the other.

The bulk of the data used in this chapter derives from the older 1960s excavations. The data from those excavations are problematic to work with. In the course of this study, complicated methods had to be used in order to arrive at a systematic archive that is usable for spatial analysis. The strength of the analysis that is performed on the basis of the Çatalhöyük database is not in fine detail, but rather in the broad perspective that the 1960s data allow us to take. My metaphor for this situation is that of a coarse-grained picture, which will be frustratingly vague in detail if one zooms in, but does provide a clear and interesting picture at the general level.

Ideally it would have been possible to enhance the resolution of the Mellaart data by working with the original excavation documentation. Unfortunately, a request for permission to work with those archives was rejected by Mellaart. This constituted an important setback to my studies. In the end, however, it was decided to proceed with the analysis on the following grounds. First, there is a good chance that the original Çatalhöyük archives no longer exist. Mention is made of a catastrophic fire in 1976 in a wooden house on the Bosphorus, in which at least part of Mellaart's archives were devoured (Collon 1990, 120; Mellaart 1991, 86). The destruction of the Çatalhöyük archives in that fire might explain why the site was never published, whereas Mellaart did publish some of the other sites he worked on, such as Hacilar and Beycesultan (Lloyd and Mellaart 1962; 1965; Mellaart 1970; Mellaart and Murray 1995). Second, even if substantial parts of Mellaart's archives are still extant, I felt that it is important to analyse the 1960s material in the present, rather than wait until these archives may become accessible in the future, so that the material from the 1960s can be compared to the new excavations at the site and provide a background to that project.

In the following section the administrative system used by Mellaart in his publications will be dealt with in some detail. This system requires some explanation, because it is different from that used in most excavations. The basic element in Mellaart's administration was the building, rather than the individual deposit, or, in absence of a building, the 'court'. All features, finds, and deposits are related to the specific building or court that they were associated with. For instance, in the preliminary reports it will generally be indicated within which building an object was found, but in most cases no details are provided concerning its stratigraphical context: whether such an object was found in the building fill, on one of the floors, or came from sub-floor deposits. Fortunately, in most cases the spatial and temporal context of fixed features and burials can be interpreted more securely.

Given the pre-eminence of the building as an administrative unit in the 1960s archives, it is of profound importance to be confident about the identification of these buildings. However, building designations are often less obvious than they seem in the Mellaart Archives. Buildings are transferred from one level to the next, or are sometimes renumbered without notice (§6.1.10). Moreover, due to the fact that buildings are reassigned between building levels, identical building

designations may surface in a specific level. For instance, level VIB has two buildings 24 and 25 respectively.

1962	1963	1964	1967	1966
E.V.1	→	E.V.10		
#	A.V.1.	→	V.61	
E.VI.1	→	VIB/A.1		
E.VI.2	→	VIB/A.2		
E.VI.3	→	VIB/A.3		
E.VI.4	→	VIB/A.4		
E.VI.5	E.VI.6	VIA.6		
E.VI.6	E.VI.7	VIB/A.7		
E.VI.7	E.VI.5	VIB/A.5	VIA.5	
#	E.VI.8	VIB/A.8		
#	E.VI.9	Shaft VIB/A.8 (undes.)		
#	E.VI.10	VIB/A.10		
#	E.VI.11	VIB/A.11		
E.VII.1	E.VI.12	VIB/A.12		
#	E.VI.13	VIB.13		
#	E.VI.14	VIB/A.14		
#	E.VI.15	VIB.15		
#	E.VI.16	VIB.16	VIB.17	
#	E.VI.17	VIB/A.17	VIB/A.16	
#	E.VI.18	VIB/A.18		
#	E.VI.19	VIA.19		
#	E.VI.20	VIA.20		
#	E.VI.22	VIB.22		
#	E.VI.23	VIB.23		
#	E.VI.24	VIA.24		
#	E.VI.25	VIB/A.25		
#	E.VI.26	VIB.26		
#	E.VI.27	VIB/A.27		
#	E.VI.28	VIB.28		
#	E.VI.29	VIA.29	VIB.29	
#	#	VIB.29	→	VII.29
#	E.VI.30	VIA.30		
#	E.VI.31	VIA.31	VIB/A.31	
#	#	VIB.31	→	VII.31
#	E.VI.32	VIB/A.32		
#	E.VI.33	VIA.33		
#	E.VI.34	VIB.34		
#	E.VI.35	VIB.24b		
#	A.VI.1	VIB/A.61		
#	A.VI.4	VIB/A.63		
#	A.VI.5	VIB.65		
#	A.VI.6	VIB/A.66		
#	#	VIB.45	→	VII.45
E.VII.2	→	VIB.6		
E.VII.3	→	VIB.35		
E.VII.3	→	VIB.36		
#	#	VII/VIB.24(w)		
#	#	VII/VIB.25(w)		
#	#	VII/VIB.26		
#	#	VIB.39	VIB.court39	
#	#	VII.22	VII.23	
#	#	VII.28	VII.23	

Table 6.1; Concordance of the changing building designations in the five major Mellaart publications on Çatalhöyük (# = not documented).

The first step in the creation of a spatial database thus consisted of drawing up a list of buildings that have been excavated and creating a concordance table for buildings, tracing their designations through the various reports published by Mellaart. This is of some importance given the fact that, for example, building 6 of level VI documented in the 1962 report is an altogether different unit from building 6 of level VI in the 1964 report. Many other examples could be given of similar caveats. The concordance produced in this study is represented in table 6.1, listing only those buildings of which the designations were altered at some point. Buildings that occur twice in a level were distinguished by adding 'w' or 'e', indicating whether they are located in the west or

east of the South Area. In several cases buildings lacked a label altogether, and these were given 'Z' numbers (eg. V.Z1), to indicate that these designations are not Mellaart's. Finally, the rooms of buildings with several rooms were differentiated using letter additions.

The second step in the analysis was the systematic processing of the Mellaart Archives,¹⁴⁸ in order to link all the extant data to the buildings. In this manner the available information concerning features, objects, and burials found in association with rooms can be contextualised. The information obtained in this manner was organised in an ACCES database file. Prior to this study there was no publication or archive listing systematically for each building what type of features they contained and how many, the quantity of burials located beneath the floors, or the objects found within buildings. In Mellaart's reports some buildings are documented in considerable detail, whereas others are only mentioned in passing or are not discussed at all. In some cases we even lack a plan of the buildings involved.¹⁴⁹ The variable quality of the documentation has some repercussions with regard to the type of questions we can pose to this set of data (§6.4.1).

In the third step of the analysis the database acquired by reworking the data in the publications was linked to the ground plans of the buildings, and augmented with data that could be obtained from those plans. In order to be able to do that, the Mellaart plans were digitised and assembled in AUTOCAD. For the purposes of this study it was essential to have grid referenced plans that could be used for obtaining measurements and plotting distributions.

However, the plans published by Mellaart do not have a grid or coordinates, nor were they published to the same scale. In order to obtain grid referenced plans, the following steps were taken. First, high quality scans of the 1960s plans were retraced in AUTOCAD using an arbitrary grid imposed over the scan. Second, overlays were produced of the different building levels at Çatalhöyük. This involved standardising the scale of these plans, adjusting the orientation so that north was the same for all levels, and finding the best match for each set of overlays. This methodology was based on the strong building continuity (§6.6.1) at the site due to which most buildings retained their location, orientation and dimensions from one phase to the next.¹⁵⁰ This building continuity can be used to arrive at a very good approximation of the relative position of the plans published by Mellaart. Third, the complete set of plans which had been given a relative grid in this manner were tied in with the new grid system used by the Çatalhöyük Research Project. This could be achieved because the South Area of the ÇRP is located in the former Area E of Mellaart, and the grid referenced plans produced for the South Area by the ÇRP could be used to calibrate the level VII plan of Mellaart. Once Level VII had been tied in with the new coordinate system used at Çatalhöyük it was relatively easy to transfer these coordinates to the other level plans (see fig. 6.6).

In this manner a standardised set of grid-referenced plans was obtained that can be used for obtaining measurements on room sizes and features, and for plotting distributions (see fig. 6.6). On the basis of the measured and referenced plans obtained in this manner, it became possible to link data directly to the plans. In many cases it was necessary to use arbitrary coordinates, for instance to locate burials within buildings, but in other cases it was possible to obtain more accurate

¹⁴⁸ Mellaart Archives is the generic term used in this study for data that can be extracted from the texts, photographs, and plans published in *Anatolian Studies* (Mellaart 1962; 1963; 1964; 1966) and in the *Çatalhöyük monograph* (Mellaart 1967).

¹⁴⁹ The following 18 buildings are mentioned in the Mellaart reports but lack published plans; B.I.1a; III.C; A.IV.1; A.V.1; VIB/A.71; VIB/A.72; VIB/A.73; VIB/A.74; VIB/A.75; VIB/A.76; VIB/A.77; VIB/A.80; VIB.70; VIII.45; IX.1; IX.8; IX.27, and X.1.

¹⁵⁰ There are a number of instances where it was not possible to apply this method with good results. The level XII plan could not be linked to level XI in this manner. Furthermore, the link between levels III/II/I and level IV rests on the matching of a single building only, and is thus fraught with difficulties. Fortunately in the latter case new plans of the area in which levels III/II/I were located from the ÇRP were available, which made it possible to rectify the position of the building remains from these levels independently.

coordinates, for instance for hearths and ovens. In this manner the ACCESS files could be combined with the digital AUTOCAD plans using MAPINFO software.



Figure 6.6: Composite plan showing grid-referenced overlays of published plans of all levels excavated at Çatalhöyük in the 1960s except level XII (based on plans published in Mellaart 1962, 1964, 1966, and 1967).

The spatial GIS (Geographic Information Systems) database of Çatalhöyük obtained in this manner can be used to explore a whole range of issues that could not be investigated before. Moreover, the results that emerge from the Çatalhöyük Research Project can be easily integrated into this database. In the remainder of this chapter I will discuss what I believe are the most significant patterns that emerge from this spatial database, but the ACCESS, AUTOCAD, and MAPINFO files that are at the basis of this analysis will be made available for future research.¹⁵¹

¹⁵¹ Search for 'electronisch depot nederlandse archeologie' on the internet to locate these files.

On the basis of the spatial database it is possible to study a range of questions in a systematic fashion. These include matters of size, both of rooms and features, orientation (in which part of the building features are located), association (whether certain features occur together regularly), function (whether a functional distinction can be drawn between buildings or rooms), continuity (whether or not a building is a reconstruction of a predecessor and whether specific practices can be traced from one building to the next) and ritual significance (whether any of the building contains more than the modal amount of burials and imagery). The answers that can be found in the Mellaart Archives may be imprecise on the level of the individual building, but they will serve to provide a general overview of Prehistoric practices at Çatalhöyük on a scale that is unprecedented in Near Eastern Prehistory.

6.1.11 CHIPPED STONE INDUSTRIES

The chipped stone industries of Çatalhöyük consist almost entirely of obsidian. This material was probably obtained from Cappadocian sources: a number of obsidian objects could be chemically traced to Nenezi Dağ (Balkan-Atlı, *et al.* 1999b), but three additional sources are also reported to have been in use (Carter *et al.* in prep). Typical artefacts include large oval arrowheads, ‘pièces équillées’, and large daggers (Bialor 1962; Conolly 1999a). In many cases the chipped stone objects were completely pressure flaked. A considerable variability existed in production techniques, up to six distinct reduction technologies were in operation at any one time (Carter *et al.* in prep). Both in the Çatalhöyük buildings and in the midden areas debitage was rare, suggesting that much of the knapping took place elsewhere. Conolly (1999b) has distinguished a major change in lithic industries in the Çatalhöyük assemblage. In levels XII to VII most artefacts were produced on flakes struck from irregular multi-platform cores, using direct percussion. From level VI onwards most artefacts were produced from pressure flaked prismatic blades deriving from ‘bullet’ cores. This technique requires considerable skill, and is interpreted by Conolly as evidence for craft specialisation (1999b, 798).

A peculiar type of deposit often encountered in the Çatalhöyük excavations are obsidian caches, consisting of small pits below the floors containing large amounts of obsidian, often in the form of half-fabricates (Hodder 1998d, 134; Farid 2002). Along with objects found in graves these caches represent one of the few contexts at the site in which objects are regularly found in situ. The question why these caches were left rather than emptied upon the abandonment of a building has not been answered so far.

6.1.12 POTTERY

The Çatalhöyük pottery is amongst the oldest of the Near Eastern Neolithic (Le Mièvre and Picon 1999, 11-2). Pottery has been found at Çatalhöyük from level XII onwards, which can be dated to about 7000 Cal. BC. In the Early Ceramic Neolithic (up to level VI), pottery is rare at the site, but it becomes more common in the later part of the sequence. Pottery shapes at Çatalhöyük are relatively simple and the corpus consists predominantly of round bowl and oval jars. Plastic elements such as carinated rims, feet or handles are absent, but pierced lugs and ledge handles are sometimes present. Apart from some burnishing, decoration is absent in the pottery assemblage (Last in prep-a).

A distinction can be made between the ceramics from levels XII to VI on the one hand, and that from levels V-II on the other. The early pottery was tempered with vegetal inclusions, generally has body shards of considerable thickness (ca. 10 to 8 mm), and was often unevenly fired. In the later levels mineral temper became more common, body shards are thinner (ca. 4 mm) and more evenly fired. It is also in the upper levels that more complicated vessel shapes start to appear, such as rectangular box-shaped forms on legs, and reddish oxidised fabrics become more common.

In-situ pottery is extremely rare at Çatalhöyük. It is seldom found on floors or the like, and it is completely absent from burials (Mellaart 1967, 208). Given a few exceptions¹⁵² almost all the pottery known from Çatalhöyük derives from the midden areas and is fragmented. These circumstances make it extremely difficult to assign functions to the pots, apart from a very general denominator, such as ‘container’ (but see Hodder 2005, 12). Moreover, the rarity of in-situ pottery makes a discussion of the distribution of pottery over the settlement a dubious exercise.

6.1.13 FIGURINES

Amongst the most appealing objects found at Çatalhöyük are the figurines. These are made of both stone and baked clay and represent a variety of figures, some of which occur in combinations. At a general level we can distinguish the following categories of figurines: first, single humanoid figurines; second, figurines with several humanoids; third, figurines resembling animals; fourth, composites of humanoid and animal representations; fifth, geometric figurines.

The humanoid figurines can be further subdivided into those marked as female by means of breasts and large buttocks, and those without such sexual marks. Some of the latter ‘sexless’ figures may or may not have represented males (Kuijt and Chesson 2004). These sexless humanoid figurines seem to have been predominantly made of stone, and disappear after level VI. From that level onwards clay figurines with the marks of females are almost exclusively found (Hamilton 1996, 226; Voigt 2000, 287; Düring 2002, 221; Hamilton in prep-a).¹⁵³ These female figurines are depicted in a variety of positions, for example squatting, standing or lying on their stomach. Some of these figures were painted with geometric motifs; others seem to be wearing clothes. The faces of the figurines are highly stylised, and do not display any form of personality. In most cases the hair of these women seems to have been done up in a kind of pigtail on top of their heads.

The humanoid figurines sometimes occur in combinations, although these are rare.¹⁵⁴ Only two examples are known, one seemingly showing a ‘Siamese twin’ of two females sharing their trunks, the second two ‘couples’ embracing, or perhaps dancing (Garfinkel 1998, 213). A number of figurines are combinations of human and animals. In most cases the humans seem to be sitting on top of an animal, but in some cases they are standing behind one. The latter combination seems to be particularly common with animals resembling leopards. These also occur in some of the wall paintings, for instance those of building F.V.1 (§6.4.10), although there it seems more likely that we are dealing with a kind of garment resembling a leopard skin rather than a real animal. Undoubtedly the most famous figurine of Çatalhöyük is that found in building A.II.1 of a female figure sitting on a sort of throne, with both arms resting on felines, possibly leopards. Between her legs is a vague protruding ‘blob’, which has been interpreted by Mellaart as a baby in the process of being born (1963, 95).

Many of the humanoid figurines are headless. These heads may have been deliberately broken as a means of ending their potency. This can be deduced from the fact that many of the headless figurines were made of stone, suggesting that the heads did not accidentally break off, but were consciously removed (Hamilton 1996, 220; Talalay 2004).¹⁵⁵ However, not all figurines were decapitated; a large number of them were found intact.

An interesting element in this regard is that animal figurines do not seem to have been treated in the same manner: they were generally found with heads attached to the body, although

¹⁵² See excavation unit (5430) and unit (5417) in space 202 (Farid 2002).

¹⁵³ Stone figurines do not disappear altogether (Mellaart 1963, 93; 1964, 45), but they do become rare in the upper levels.

¹⁵⁴ For instance the mother and child motif that is common in later Neolithic sites in Anatolia such as Hacilar (Mellaart 1970) and Kuruçay (Duru 1994), is completely absent from Çatalhöyük. This is important in light of the fact that many authors have interpreted the Çatalhöyük figurines as representing females in a capacity of mothers (Gimbutas 1991).

¹⁵⁵ In sections §6.4.10 and §6.4.12 evidence for paintings with headless humans and skull removal from burials is discussed, and these may have been linked conceptually to the headless figurines (Talalay 2004).

they sometimes had signs of other forms of mutilation, such as stabbing (Mellaart 1962, 51; Hamilton 1996, 223). Animals figurines represented at the site represent mainly bovids, boar, dog, and felines (Hamilton 1996, 223). These figures are often produced with much less care than the human figurines, and it is possible that they were part of a completely different set of practices. Finally, there are a large number of figurines in geometric shapes, some of which are sometimes called tokens, that remain poorly understood.

The analysis of the distribution of the figurines over the settlement is problematic. Only a minority of the figurines found in the 1960s excavations were published in Mellaart's reports. Hamilton managed to find 254 figurines in the museums of Konya and Ankara, of which no more than 80 surface in Mellaart's reports (Hamilton 1996, 215-7). The majority of the unpublished figurines seem to represent animals. The figurines of all categories seem to have been predominantly found in midden areas (Hamilton 1996, 217). Those that can be traced to individual buildings (n=61) came predominantly from three buildings: A.II.01; VIB/A.10; VIB/A.44, containing clusters of 9, 14, and 9 figurines respectively.¹⁵⁶ Even in those cases where figurines can be traced to a specific building, it is likely that in most cases they derived from the fill of those buildings rather than from floors (Hamilton in prep-a). Given the overall rarity of figurines in buildings, and their uneven distribution, it is hazardous to interpret the distribution of these objects over the site.

In the surface scrape and the 1995-1999 excavations at Çatalhöyük, 384 additional figurines were found,¹⁵⁷ 140 of which are considered to be humanoid, and 150 to be animals (Hamilton 1996, 228; in prep-a). These figurines were predominantly found in midden areas (Hamilton in prep-a). Many of the animal figurines found had signs of stabbing during manufacture. The majority of human figurines were found broken, and in many cases the heads were missing (*ibid.*).

6.1.14 OTHER ARTEFACTS

A substantial number of baked clay seals have been found at Çatalhöyük (N=31). The large majority of these seals have geometric motifs, the most common amongst which are meanders, waves, lozenges and spirals. In 2003 a leopard shaped figurine was found (Türkcan 2003), and in the 2005 a bear shaped figurine was found (see www.catalhoyuk.com). The function of these seals is difficult to determine. No *bullae* have been found so far, and it is that they were in use to decorate textiles. The seals seem to derive mostly from graves and middens. No contextual data are given for the 16 seals published by Mellaart (1963, 50; 1964, figs. 40 and 41), but in the 2003 season one was found in a midden area, and two seals were found in graves. In addition, a substantial number of seals were found in buildings, totalling 19 seals.¹⁵⁸ The seals seem to have mostly derived from the upper levels (VI-I) at Çatalhöyük (Türkcan in prep). In the cases of the leopard and bear figurine the stamp motifs can be related to mouldings occurring on walls in earlier levels (§6.4.11).

A large range of small finds has been encountered at Çatalhöyük, and here I will only mention a few. Personal adornments are an important category, including beads and bracelets made of stone, bone and copper (Mellaart 1964, 114; Hamilton in prep-b; Russell in prep). A second category of small finds consists of a variety of artefacts made of bone, including awls, needles, spoons, belt fasteners, and even vessels (Mellaart 1964, 84-5; Russell in prep). A final category to mention here are clay balls that have been found in large numbers at the site. These have various

¹⁵⁶ Figurines were completely absent from graves (Mellaart 1967, 208).

¹⁵⁷ More figurines were found in later seasons, and by the BACH and Poznan teams, but these await further analysis and publication.

¹⁵⁸ Seals were found in the following spaces: A.II.1 (4); B.II.1 (1); B.II.2 (1); B.II.3 (1); A.III.1 (1); A.III.2 (1); A.III.4 (1); IV.1 (2); IV.2 (1); IV.3 (2); IV.8 (1); VI.B/A.61 (2); VII.15 (1) (Mellaart 1964, figs. 40 and 41; Türkcan in prep, table 1). Five additional seals were found by Mellaart in courtyards, and six seals are reported by Türkcan as found 'on the surface' of Çatalhöyük.

size and shapes, and often show indications of having been used near fireplaces. It is probable that they served a variety of purposes, including as heat-transfer devices and as a base/stand for vessels with round bases.

One of the most remarkable groups of objects found at Çatalhöyük consists of a large number of burial goods made of organic materials. These were included in burials below a number of level VI houses. Due to an intense fire that ravaged these buildings the organic substances in the burials were charred, and a range of objects were preserved that would normally have decomposed (Harrison 2004). Included amongst these objects are wooden vessels and boxes, textiles and baskets. It is debated whether these woven textiles were produced from wool (Helbaek 1963, 43; Burnham 1965) or linen (Ryder 1965, 176; Vogelsang-Eastwood 1988). However, linen seems to be more likely, given the fact that sheep were probably not woolly in that period (Russell and Martin 2005, 74). Another group of organic objects preserved in the level VI grave assemblage are baskets of various shapes and sizes (Mellaart 1964, 85). Some of the best-preserved examples were used as a container for the skeletons in burials (Mellaart 1964, pls. 22-a and 23-a). Apart from these exceptional instances, baskets can often be recognised in fragile silica-skeletons encountered during excavations. On the basis of these silica-skeletons the techniques used in Çatalhöyük basketry are now being studied (Wendrich in prep).

One of the enigmatic characteristics of the Çatalhöyük domestic spaces is the near absence of querns and mortars at the site. In total Mellaart mentions only ten of these objects in his reports. It is conceivable of course that these objects were not mentioned because they were not perceived to be important, yet they are lacking from pictures and plans of building interiors as well. In the ÇRP excavations only a few complete objects of the ground stone industries were found (Baysal and Wright in prep). Most of the ground stone objects derived from discard contexts such as fills, and were fragmentary. A grinding feature was found in building 1 (North Area -Feature F.1423), but it is far from clear if this installation was used for preparing cereals; the grinding slab was upside down, and contained traces of ochre. It is likely that the scarcity of grinding stones is related to the recycling of these artefacts, since the raw materials had to be obtained from considerable distances (the nearest volcanic outcrop is at Karadağ, some 40 kilometres from the site).

6.1.15 BOTANICAL REMAINS

A large range of botanical remains have been recognised in the deposits excavated at Çatalhöyük. A systematic programme of sieving and subsequent analysis set up by the ÇRP has provided a detailed database (Fairbairn *et al.* 2005). The botanical remains that have been found at the site relate to a large range of activities, including the production of mats, ropes, clothes and baskets, building practices and firing pottery, as well as subsistence and heating. Dung was in use along with wood as a source of fuel, and through the dung much information about the environment of the site can be obtained (Fairbairn *et al.* 2005, 180-81).

One major group of macro-botanical remains consists of wood, most often in the form of charcoal. In exceptional cases complete beams were preserved (Mellaart 1963, 52). The majority of the wood remains at Çatalhöyük were in the form of small charcoal fragments. The charcoal has been studied and published in detail (Asouti 2005). The most common preserved species are: juniper; oak; pistacia; and elm. (Asouti and Hather 2001). Various plants were used for the production of mats and baskets, the details of which will not concern us here. In addition, it is plausible that flax was grown to produce some of the textiles found by Mellaart (1964, pl. 24; Ryder 1965; Vogelsang-Eastwood 1988). Another interesting plant that should be mentioned is the date palm (*Phoenix dactylifera*), of which phytolith remains were found in no less than 9 different samples (Rosen 2005, 207). These were probably part of basketry or cordage imported from Syria or beyond.

Agriculture was of prime importance in the subsistence economy of Çatalhöyük. About 75 % of the calorific value of the charred seeds is suggested to have derived from domestic crops (Asouti and Fairbairn 2002, 187). Domestic crops include, among others, various species of wheat, naked

barley, domestic rye, bitter vetch, lentil, pea, and chickpea (Asouti and Fairbarn 2002, 183; Fairbarn *et al.* 2002; 44-5; Fairbarn *et al.* 2005, 141). It has been suggested that pulses and tubers may have been the major food source at Çatalhöyük (Molleson and Andrews 1996). Apart from agricultural crops the collecting of a variety of wild plant resources still played an important role at Çatalhöyük (Asouti and Fairbarn 2002). Wild species that were collected include: hackberry; almond; plum; acorn; and fig (Asouti and Fairbarn 2002, 184; Fairbarn *et al.* 2002, 45; Fairbarn *et al.* 2005, 141-3).

6.1.16 FAUNAL REMAINS

The research of the faunal remains by members of the ÇRP has substantially altered the picture obtained from the earlier Mellaart excavations. For instance, in the Mellaart excavations the predominant species represented in the faunal assemblage seems to have been cattle (Mellaart 1967, 223; Perkins 1969, 178). By contrast the data emerging from the new excavations at the site show that sheep and goat bones are far more common than cattle (Martin 2001, 40; Martin *et al.* 2002, 200-1; Richards *et al.* 2003, 69). It appears that the difference in results mainly reflects different methods of sampling: in the Mellaart excavations bones were collected by hand by the workmen, and the large cattle bones were collected more frequently due to their size, whereas in the present project all excavated soil is sieved, in order to retrieve the full spectrum of small sized macro-botanical, faunal, and artefact inclusions.

On the basis of the faunal remains excavated by Mellaart, Perkins (1969) argued that bovines were domesticated at Çatalhöyük. At that time these were the earliest domesticated cattle known from the Near East, and Anatolia became 'the centre' for cattle domestication in secondary sources. Although this interpretation has been challenged by Ducos (1988), the new research has been instrumental in discrediting the domestic status of cattle at least in the early levels XII to VI.¹⁵⁹ This issue is of considerable importance given the role cattle play in the symbolic imagery of the site (§6.4.11).

Along with subsistence practices faunal remains at Çatalhöyük have also been investigated with regard to such issues as the contexts of deposition of faunal remains, the incorporation of certain elements in walls and fixtures, and the reworking of bones into objects (Martin and Russell 2000; Russell and McGowan 2003; Russell in prep; Russell and Meece in prep). Faunal remains from a large range of animals have been recognised at the site, including: first, domestic species, such as sheep, goat and dog; second, large hunted mammals, including cattle, pig, deer, ass, horse and bear; and, third, a large variety of remains from small animals, including eggs, turtle shell, fish bones, and bones of various birds.

Whereas sheep and goat were most common amongst the faunal remains, they do not represent the greatest calorific value. Given that a single bovid provides about 30 times more meat than a sheep or goat, it follows that the amount of cattle meat consumed was more substantial than that of sheep and goat. In some levels equids too provide greater amounts of meat than sheep and goat (Russell and Martin 2005, 46). Cattle bones are often found in large clusters in particular contexts, for instance on the floor of a building subsequently abandoned and sealed. For that reason, and given the large amount of meat provided by butchering cattle, it has been posited that cattle meat consumption was primarily a feasting activity. The same was probably true for equids. By contrast the more amenable sheep and goat seem to have been a part of the more ordinary diet (Russell and Martin 2005, 96).

Some animal bones seem to have been suitable for incorporation into walls and features. The bones that were used in such localities were usually teeth, jaws, beaks, claws and horns, and they derived from animals such as cattle, bear, pig, and to a lesser degree vultures, sheep, wolf, and fox. In some cases these animal parts protruded from the walls or features, but in other cases they were

¹⁵⁹ Only pre-level VI assemblages have been excavated by the ÇRP so far, excluding the TP Area, that awaits processing.

incorporated without being visible. The plastered animal heads with inset horns and horns placed in benches and pillars seem to form a continuum with bones incorporated as special deposits in the built fabric of houses (Last in prep-b).

6.2.1 THE ÇATALHÖYÜK SETTLEMENT

The Çatalhöyük settlement is constituted by three types of spaces: first, the loam buildings, second, enclosed open areas, and third, unbounded open spaces. It will be argued that the loam buildings of Çatalhöyük are grouped in neighbourhood clusters that would have encompassed approximately 30 to 40 domestic buildings. These buildings generally have a large main room with a suite of domestic features, and some buildings will have one or more subsidiary rooms that are smaller and have different kinds of features.

Interspersed in between the loam buildings are enclosed midden areas. The deposits in these middens seem to consist mainly of fine lenses of ashy deposits and domestic refuse, although occasionally penning deposits are also encountered. As a rule the buildings at Çatalhöyük were thoroughly cleaned upon abandonment, and the fill that was placed in the buildings after abandonment was also relatively clean material. The overwhelming majority of both artefacts and ecofacts found at Çatalhöyük come from the midden deposits. These midden areas have been poorly investigated in both the Mellaart and ÇRP excavations, because the focus has been on the buildings in both projects, and in this study this imbalance cannot be redressed in the absence of more evidence.

The midden areas complement the buildings in important ways and contain crucial evidence about the economy, attitudes towards ‘rubbish’ and the organisation of space in the settlement (Martin and Russell 2000). The following activities can be associated with midden areas (Martin and Russell 2000; Bull *et al.* 2005; Farid in prep; Matthews 2005; Russell and Martin 2005): first, the dumping of oven and hearth rake-outs, as manifested in the thin ashy lenses that dominate the deposits in midden areas; second, the dumping of other types of domestic refuse, manifested in the ubiquity of botanical and faunal remains, and (broken) artefacts of various kinds; third, dogs seem to have been kept in some of the midden areas, manifested in the fact that many of the bones found in them show signs of gnawing and in some cases show evidence of having passed through their intestines; fourth, coprolites of humans have been found in the midden areas; fifth, in some midden layers there is good evidence for animal penning, indicated by the presence of shed milk teeth from ovicaprids and the find of several deceased perinatal ovicaprids.¹⁶⁰

All these elements seem to suggest that the midden areas were primarily used for dumping refuse of various kinds, and keeping animals such as dogs or young ovicaprids, and were not used much for domestic or group activities. Doors or portholes of buildings to adjacent midden areas have not been documented in the early levels XII-VI at the site, so that access to the middens would normally have been achieved by descending ladders. Many of the midden deposits, consisting mostly of loose ashy lenses, show evidence for a fairly rapid build-up of the midden with little disturbance by trampling.¹⁶¹ Thus, the internal midden areas would have been breaks in the settlement texture: sunken areas in which refuse was thrown and faeces were deposited and in which dogs were kept. These middens were seemingly not used for ground level activities nor for communication and transport purposes.

The way in which these open spaces in between buildings were used may have changed in the upper levels V-I at Çatalhöyük. In these levels, doors connecting buildings to adjacent open areas seem to appear. For instance, in level IV the buildings excavated by Mellaart are organised

¹⁶⁰ There is also evidence for lime burning in external fires in the deep sounding midden-like deposit in the South Area (Farid in prep), but this probably took place in an area that was located outside the settlement proper, rather than in an enclosed midden.

¹⁶¹ In the excavations these midden areas are a nuisance because they cannot be kept clean or excavated in an orderly fashion due to the looseness of the deposits.

around a central open space, which could be accessed from the surrounding buildings. It would be interesting to investigate whether the open spaces in these levels are similar to the middens from the earlier levels or whether they have different types of accumulations. The midden area excavated in the TP Area contained ashy deposits attributed to hearth rake out and the remnants of food processing (Matthews *et al.* 2004). Thus, at present no differences can be noted for open areas in the upper levels at Çatalhöyük (but see §6.9.3).

Similar questions can be asked with regard to the ongoing streets and alleys at Çatalhöyük. These are continuous spaces that separate the different neighbourhood clusters from one another, and vary in width from narrow alleys only a metre in diameter to wider stretches over 3 metres in width. In the 2004 season, part of a street was excavated in the 4040 Area to see whether this area had evidence of trampling, but it seems that such was not the case, although more research is necessary to settle this matter (Matthews *et al.* 2004).

In the following, I will discuss the loam buildings. Later in this chapter I will discuss the manner in which these buildings were grouped into larger associations, and what the role of the streets and alleys may have been in the settlement. In this manner, a picture of the settlement will be built up, starting with the individual rooms and their inventories, after which the focus will shift to the building they were part of, to the clustered neighbourhood, and, finally, to the organisation of space in the settlement.

6.2.2 THE LOAM BUILDINGS

The building practices of Neolithic Çatalhöyük can be reconstructed with great detail due to the fact that a large amount of research has been devoted to them. In particular the micro-morphological work of Wendy Matthews has been invaluable for understanding ancient building technologies at Çatalhöyük, and taken together with detailed investigations of individual structures executed by the ÇRP, this has made a profound understanding of Çatalhöyük buildings possible.

A central issue that has become clear is that these buildings are not stable entities that are built and thereafter inhabited until the end of their use-lives, with relatively minor alterations in the course of their existence. Rather, these buildings are always in a state of flux, and are transformed substantially on a regular basis. Thus, although we can distinguish several phases in the existence of a building these are only approximations of a complex reality. Construction and maintenance of these buildings are often difficult to distinguish, and the interior of buildings is transformed on a regular basis. For instance, the roofs of these structures need to be renovated on a periodic basis, a practice that can be classified as both maintenance and construction.

These insights fit well with ethnographic studies and the concept of ‘vegetatives Bauen’ (§3.4.1). In this regard, an extreme position (that will be explored below (§6.6.1)), is that speaking about individual buildings at Çatalhöyük may be a fallacy, because they might have been seen as reincarnations of pre-existing structures, rather than as independent entities. Mellaart’s method of labelling buildings with the same designations throughout succeeding levels intuitively captures a profound aspect of Çatalhöyük building practices.

Nonetheless, for the sake of convenience and clarity, the following account will break down the lifecycle of Çatalhöyük buildings into traditional categories such as construction and use, while keeping in mind the drawbacks to such an approach. While this chapter focuses on Çatalhöyük, many practices documented at this site may also have been of importance at the other Central Anatolian Neolithic sites, for which we lack a comparably detailed body of evidence. The discussion of Central Anatolian Neolithic building practices that was presented in chapter 3 addressed a general set of building principles, whereas the focus here is on more specific details that have been documented at Çatalhöyük.

6.2.3 FOUNDING A ÇATALHÖYÜK BUILDING

One of the defining characteristics of the Neolithic settlements of Central Anatolia is the fact that buildings often remain true to their location, dimensions and orientation through long periods of

time. In soundings at Aşıklı Höyük and Çatalhöyük buildings can be traced through centuries of occupation, involving up to seven complete rebuilding episodes, as well as many minor renovations. In part this building continuity can be related to functional parameters, the need to create secure foundations, but I will argue that there are other factors at play as well (Dürring 2005a; §6.6.1). However, this section will deal with building continuity from a functional perspective only, and it will be treated here as no more than a foundation method.

In most cases the Çatalhöyük buildings were constructed on top of a pre-existing older building. Rather than using stone for foundations, which is not available as a raw material in the vicinity of the site, or building massive loam walls in foundation trenches to secure the stability of the load-bearing walls, the general practice at Çatalhöyük was to construct walls on top of older pre-existing walls, which acted as a foundation. Typically the foundation of a building would be created in the following manner.¹⁶²

First, the predecessor of the building in question was dismantled. This dismantling process could involve a number of elements (Matthews in prep). The first step in this process involved the removal of artefacts and furnishings that could be recycled. This step included meticulous cleaning and scouring of ovens and bins. This practice of cleaning out buildings is of considerable consequence for spatial analysis. Given a few exceptions (§6.4.1), the Çatalhöyük buildings were spectacularly empty with regard to ‘mobilia’, and these cannot be used for the contextual analysis of space. In some cases the fixed features that could subside under the pressure of overlying deposits were stabilised, for instance domed ovens were infilled and portholes were blocked (Cessford in prep-c; Farid in prep; Matthews in prep). This is a practice that could be explained in both functional and symbolical terms: it may simply have been a way of securing strong foundations on which to build, or alternatively, it may have been of importance to preserve the integrity of the building that was abandoned. Another practice connected to the abandonment of buildings consists of the treatment of the moulded features on the walls. In many cases this involved the deliberate destruction or removal of mouldings, for instance, the ‘splayed figures’, often referred to as ‘the goddess motif’, were all partially destroyed, involving the removal of the head, feet and ‘hands’ (§6.4.11). In other buildings a final plaster layer was applied at this stage.¹⁶³

In the next stage special deposits were sometimes placed in buildings. Numerous contexts with large amounts of cattle bones, probably the remains of feasting, have been reported from final floor contexts (Russell and Martin 2005, 54-5). Another interesting intentional deposit consists of two human skulls and an aurochs skull placed in building 3, although these were found slightly above the latest floor in a fill context (Stevanovic and Tringham 1998; 1999). A very comparable intentional deposit has been reported by Mellaart for building VII.21, which contained four human skulls set on the floor (1964, 64-5, figs 21, 22; 1967, 84). Also in this stage the building was dismantled, involving the removal of the roof, the extraction of posts,¹⁶⁴ for which purpose post retrieval pits were dug through the floors and deposits below, and cutting down the walls to a height of generally about one to one-and-a-half metres above the floor (Matthews and Farid 1996, 297; Cessford in prep-c).

¹⁶² This account is a simplified version of the typical process that occurred during the initial stages of construction. Of course, many exceptions and alternative scenarios can be found in actuality. For instance a building may be constructed on a former midden area, rather than on top of a predecessor, as was the case with ÇRP.3 in the Bach Area (Stevanovic and Tringham 2003).

¹⁶³ A great degree of variability exists with regard to abandonment procedures. One group of buildings that was burnt was simply filled with rubble, without any attempt at clearing or plastering (Mellaart 1963, 48). In another case, described as typical, all the walls were replastered, and after this the building was filled with clean material (Mellaart 1963, 61).

¹⁶⁴ Roof beams and posts would have been recycled in various manners (§3.3.7). To my knowledge, not a single post has been found *in situ* at Çatalhöyük. Incidentally, these practices of recycling timber have important implications for any Çatalhöyük radiocarbon date obtained from charcoal (Newton and Kuniholm 1999, 530).

Finally, the remaining volume between the extant walls was infilled in order to create a platform suitable for the subsequent construction of a new structure. These fills could consist of a variety of materials, including ‘clean’ clay (Mellaart 1963, 47; Farid in prep), building debris, heterogeneous aggregates, diagonal wedges of pisé-like material, and ashy refuse mixed with wind and water-laid deposits (Mellaart 1963, 48; Matthews 1996, 293-4; Cessford in prep-c; Farid in prep). This variability may indicate that in some cases there may have been a time lapse between the abandonment of a building and the construction of its successor, but this requires further investigation. The interval required for the formation of wind and water-laid deposits is of key importance, because the interval could potentially have been very short, a matter of a few months, or it may have lasted for years.

Upon the platform constituted by the truncated walls and the intermediate fill, the successor structure was subsequently erected, its wall usually exactly replicating the earlier walls (Düring 2001; 2005a), with the first floor constructed on top of the fill. In some cases people were buried in these fills before construction of a new building was begun (Cessford in prep-c). Recently, Hodder and Cessford have discussed the retrieval of a moulding from a building that had already been infilled (2004, 33), pointing to the fact that the practices associated with abandonment did not always take place in the order one might expect.

6.2.4 CONSTRUCTING A ÇATALHÖYÜK BUILDING

The next step in the construction of a Çatalhöyük building was producing the exterior walls. Most building units at the site were surrounded by their own set of outer walls. There are a number of exceptions to this rule, however. Most notable amongst these are a number of twin buildings, where two neighbouring units share a party wall.¹⁶⁵ In most cases these twin buildings had direct access to one another via interior doors or portholes. Party walls also seem to have been more common in the earliest building levels XI and XII (Mellaart 1966, 168; Farid in prep), although the limited exposures available for these levels make it difficult to be certain on this point.

The near absence of party walls at Çatalhöyük in a densely built up environment seems counterintuitive, given that many building efforts could have been saved if neighbouring units had shared walls. Given the fact that party walls are rare there must have been compelling reasons to build separate walls for each unit. One reason for this could be the fact separate walls facilitated the individual renovation and reconstruction of buildings. In accented parts of the mound an additional advantage would have been that buildings could be more easily accommodated to the mound relief.

The construction process of the walls at Çatalhöyük can be subdivided into the procurement and transport of loam slabs and mortar on the one hand, and their incorporation into the walls on the other. The loam slabs that are in use at Çatalhöyük are described in various manners, some of which are mutually exclusive. The exact composition and technology involved in the production of the Çatalhöyük bricks is now being studied, and will be published in the near future (Tung in prep). Both the colours and soil fraction of the slabs vary considerably from one batch of bricks to the next (Matthews and Farid 1996, 289; Matthews *et al.* 1996, 306).

As a rule both the loam slabs and the mortar that belong to one building episode are homogeneous in matrix and colour and probably derived from the same production batch. It is often on this basis that different building phases can be distinguished at Çatalhöyük, although the relation between batches and building phases is not always straightforward (Matthews and Farid 1996, 275). It seems that the soils that were used were predominantly extracted from off-site areas,

¹⁶⁵ Examples of such twinned buildings are ÇRP.16 (IX.8) / ÇRP.22 (IX.1), their predecessors ÇRP.18 (X.8) / ÇRP.23 (X.1) (Farid in prep), and VIB/A.7 / VIB/A.14 (Mellaart 1964, figs 1 and 2).

although bricks made from site deposits also occur. Plant material seems to have been added to these bricks to enhance their strength (W. Matthews personal comment 2004).¹⁶⁶

The slabs used at Çatalhöyük range considerably in their size. On average, widths are mostly about 25 centimetres, lengths vary between 76-125 centimetres, and heights range from 5-15 centimetres (Matthews and Farid 1996, 289). It has been suggested that slabs of that size are prone to break, and that they might have been transported to the building location on wooden boards (Mellaart 1967, 55; Matthews and Farid 1996, 289). Stevanovic (1999) has performed experiments with reproducing loam slabs similar to those used at Çatalhöyük, however, and suggests that dry slabs of up to 120 centimetres could be transported without a problem.

Like the loam slabs, the mortar that was used for construction at Çatalhöyük derived from a variety of deposits with distinctive properties and textures, ranging from off-site soils with plant additions to matrices that include charcoal and bone fragments that probably derive from the site itself (Matthews and Farid 1996, 289-90).

The actual construction of the walls was a matter of laying the loam slabs in alternating courses, interspersed with mortar. The mortar between the slabs was often almost of the same thickness as the slabs themselves (Matthews and Farid 1996, 291). In some cases the mortar used between the bricks, or a similar type of loam, was also smeared over the wall surface, to enhance the strength of the wall and serve as a preparatory layer for subsequent plaster layers (Matthews *et al.* 1996, 306).

The walls at Çatalhöyük generally consist of a single row of slabs and were approximately 25 centimetres wide (Matthews and Farid 1996, 289). Matthews (in prep) estimates that between 500 and 750 loam slabs would have been required for each building, and considering these figures it is clear that the construction of a building would have involved a considerable amount of time and labour. Stevanovic (1999) reports that the production of slabs and the building of the exterior walls of a reconstruction of a more or less typical Çatalhöyük building took 5 men about 15 days, working 7 hours a day, thus about 75 work days in total.

After the walls of the Çatalhöyük buildings were finished, the next step in the construction sequence was the insertion of posts and the construction of the roof. This part of the construction sequence can be broken down into the following steps: first, obtaining suitable timbers (§3.3.7); second, inserting posts and roof beams; and third, the construction of the loam roof. The beams were obtained either directly from the forest or from an abandoned building, and were subsequently used as standing posts or as roof beams. If they were used as posts they were inserted directly adjacent to the walls. In the upper levels at Çatalhöyük (V-II), buttresses were occasionally present and seem to replace the posts encountered in the older building levels (§6.4.8).

Inserting a post could involve cutting a hole through the foundation fill of buildings, into which these posts were placed, but in other buildings another fill deposit was placed between the walls of the new structure at this point and abuts the posts. It seems plausible that these posts were also shored up from above in order to avoid instability. Apart from small poles used in screen walls, that were occasionally constructed to subdivide some of the larger rooms, posts were never placed in freestanding locations. Another peculiar aspect about the placement of posts is that they are not present in all of the Çatalhöyük buildings. Mellaart has hesitated between: first, a purely decorative function for these posts; second, a function as a support for the roof beams and for an inward corbelling of the walls immediately below the roof; and, third, the idea that these posts were anachronistic remnants of an older tradition of building in wood that no longer served any practical purpose (Mellaart 1962, 48; 1963, 60; 1967, 63-6). This issue of what these posts were really for

¹⁶⁶ The manner in which the Çatalhöyük slabs were produced and incorporated into the walls is still under investigation. It has been suggested that slabs were incorporated into the walls in a wet condition, that they were moulded *in situ*, or that they might have been pre-shaped and dried in the sun before being incorporated into the walls (Matthews and Farid 1996, 289; Stevanovic 1999). These issues are now being investigated by Tung in her PhD research.

can best be approached through a spatial analysis of the posts over the settlement, and will be dealt with later in this chapter (§6.4.8; §6.9.3).

The final element in construction of a Çatalhöyük building consists of making the roof. A collapsed roof has been found at Çatalhöyük (Stevanovic and Tringham 1999),¹⁶⁷ and consequently we are fairly certain that the buildings at Çatalhöyük normally had flat loam roofs. Evidence for substantial upper storeys at Çatalhöyük, such as a collapsed roof or wall on top of a collapsed first floor, is lacking,¹⁶⁸ although there is some evidence for the existence of covered interior spaces on the roof, as can be deduced from floor layers distinguished on the collapsed roof of building ÇRP.3 (Matthews 1998). The issue of whether or not upper storeys existed at Çatalhöyük will be explored later in this chapter (§6.9.3).

On the basis of the ethnographic data discussed in chapter 3 and the archaeological evidence we can suggest the following construction sequence for the roof. First, a number of roof beams were positioned across the width of the room, and these were placed no further than 1 metre apart. On top of these came a layer of finer branches and reeds that were laid transversely over the beams. Finally, loam was packed on top of the branches (§3.4.5). In some part of the roof an opening was created from which the building could be entered with a ladder.

6.2.5 BUILDINGS IN MOTION

After the construction of the exterior elements of a building, the internal furnishings were put in place. Although these activities could be classed with the construction phase proper, it is at the same time part of a continuous process of modification of the interior of the buildings. In this sense it differs from the type of ‘decorating’ we do in our own society upon moving to a new home, the result of which has some degree of permanence. The construction, maintenance, and alteration of internal features constituted a constant and ongoing process at Çatalhöyük.

Changes in the internal organisation and use of space were often local and fragmented. In many buildings it is possible to establish sequences of floors and related features for a specific compartment, but in most cases these sequences cannot be directly linked to those in the next compartment (Cessford in prep-c; Farid in prep). In the buildings that are being excavated in the new project at Çatalhöyük we can see the frequent plastering episodes on walls and floors, sequences of hearths and bins, and reorganisations of internal space, achieved by inserting new screen walls, or by relocating activity areas and related features.

Some of these activities are also related to changes in the outer ‘skeletons’ of buildings. For instance, in some cases ladders might have been moved from one spot to another, which means that the roof had to be modified in order to accommodate the new entrance.¹⁶⁹ It is probable that such roof modifications occurred at a time when these roofs were being renovated, which can be estimated to have occurred once every ten years or so (§3.4.5). In short, buildings were dynamic units that were constantly reworked and modified. Important practices that we can discern are plaster activities and the construction, use and modification of a range of internal features.

Plaster was present on all wall and floor surfaces at Çatalhöyük, and plastering seems to have occurred on a regular basis (Mellaart 1964, 60). Up to 160 layers (80 couplets) of wall-plaster were found in a micro-morphological section (Matthews *et al.* 1996, 306). The constituent elements include ‘silty clay to medium-coarse sandy silt loam’ (Matthews *et al.* 1996, 304), in some cases

¹⁶⁷ A possible second collapsed roof was reported from the TP Area (Czerniak and Marciniak 2003), but this hypothesis remains debated (Czerniak and Marciniak 2004).

¹⁶⁸ This situation is in marked contrast to the unequivocal evidence for second storeys from the much smaller exposures at Canhasan I (chapter 8).

¹⁶⁹ In numerous instances Mellaart reconstructs several ladders within a single building, one of which would have been present in the main living room and another in adjacent smaller rooms (Mellaart 1963, 45). The presence of multiple ladders in a single building cannot be excluded, but it is equally possible that the ladders recognised by Mellaart belong to different stages of occupation of a building, during which the ladder was moved from one location to another.

with vegetal additions and in other cases including ‘heterogeneous burnt aggregates, charred plant remains and fragments of bone’ (*ibid.*). A particularly conspicuous plaster is made of calcareous silty clay, and has a white colour. Plaster layers, both on floors and walls, were often applied in couplets. First, pale brown calcareous silty clay was applied, and second a finishing coat of finer white calcareous silty clay was added (Matthews *et al.* 1996, 306). The contrasting matrices of these layers facilitate the recognition of the individual plaster couplets.

Apart from these couplets there are also plaster layers consisting solely of the finer white calcareous silty clay, which were applied either as very thin washes of 10-50 µm, or thicker applications of ca. 200-700 µm. The thicker couplets are relatively rare, and are interspersed with up to 10 thin washes. Matthews has argued that the couplets represent a yearly cycle, and that the thinner white washes are related to shorter intervals (Matthews 2005, 368).

The plaster intensity and the plaster quality varied enormously from one space to the next. Matthews (2005, 367) mentions that as many of 450 fine white plaster layers were applied to the wall of the living room of building 5 (North Area), but only three to four orange and brown silty clay plasters were applied to the walls of the adjacent spaces 155 to 157, which were probably used primarily for storage purposes. Such differences in plaster practices from one room to the next can provide an important clue for the reconstruction of the relative importance and functions of spaces (§3.4.4).

One of the main reasons why plastering was done more frequently in the living rooms was the presence of hearths and ovens in these spaces, which produced large amounts of soot which was visible on the plaster surfaces (Matthews 2005, 367-8).¹⁷⁰ The most practical means of restoring a clean wall surface was to apply a new wash layer of white silty clay over the soot-stained surface.

As an illustration of the complicated and ongoing transformations that a Çatalhöyük building went through I shall refer to building ÇRP.1, excavated in the North Area. This building was meticulously excavated, documented and sampled. The final report on this building distinguishes five major phases in the sequence of the building and numerous minor sub-phases within each of these. In total more than one hundred pages were needed to discuss the sequence of the deposits and features in this building (Cessford in prep-c). Building ÇRP.1 serves as a reminder of the fact that buildings at Çatalhöyük are constantly changing and highly complex entities.

It is apparent that we lack this type of high-resolution data for the structures excavated in the 1960s. However, this need not deter us from studying spatial patterning in the 1960s data. As was argued earlier the older project data may be deficient in their resolution, but they do provide us with an understanding of the settlement at a scale impossible to achieve with modern excavation techniques.

6.2.6 THE USE-LIFE OF BUILDINGS

An issue of considerable interest with regard to the Çatalhöyük structures is how long a building was in use. It is hazardous to generalise on such matters, because there may have been considerable variability from one building to the next. Ethnographic accounts suggest that loam buildings require constant care and upkeep and will quickly disintegrate in the case of neglect (§3.4.4). It is often possible to make an approximation of the maximum use-life of loam structures, which is basically a function of the building technology employed, the local climate and proper maintenance. However, it would be hazardous to assume that this optimum use-life represents the normal biography of a building. Studies of vernacular loam buildings have demonstrated the intricate connections between economic hazards and changes in family size on the one hand, and the use of buildings and upkeep invested in them, on the other (§3.4.1). Given these issues ‘the average use-life’ of Çatalhöyük buildings is no more than a crude estimate.

¹⁷⁰ Some of the excavated skeletons at Çatalhöyük had black carbon deposits on the ribs, and these have been interpreted as soot dust that had settled in the lungs (Molleson *et al.* 2005, 298).

Nonetheless some approximations can be made. The method used most often is based on an idea first proposed by Mellaart, who argued that plastering occurred on a yearly basis at Çatalhöyük and that the duration of occupation of a building can be assessed by counting the number of plaster layers. On the basis of the plaster counts he argued that the maximum span of a building would have been about 120 years, and a normal life span between 30 and 60 years (Mellaart 1964, 64; 1967, 50-1). In a similar vein Boivin (2000, 385) has suggested that plaster may have been applied in connection with seasonal festivals and rituals relating to rites de passage of household members. More recently Matthews (2005, 368) has argued that the more substantial plaster layers may indeed have been applied on a yearly basis, with minor plastering occurring in the intermediate periods. On the basis of plaster counts of the thicker plaster layers in living rooms Matthews reconstructs an average of 70-100 years in the earlier levels at the site, and 50-70 years for the later levels (Matthews in prep).

Cessford arrives at similar figures for the use-lives of ÇRP.1 and ÇRP.5 on the basis of radiocarbon dates (Hamilton 1998, 8; Cessford 2005; in prep-c). However, Cessford's results should be evaluated critically, given the fact that the error margins of radiocarbon do not allow for very precise dating. In this specific case it seems plausible that the plaster evidence has partly structured the interpretation of the radiocarbon data. It seems unlikely to me that such definitive conclusions of the use-lives of these buildings would have been drawn in the absence of the plaster evidence.¹⁷¹

At the end of their use-life buildings became unstable. Although in most cases buildings seem to have been abandoned and dismantled before they reached a stage of structural unsoundness, there is some evidence for other strategies. There are many buildings in which walls are leaning at dangerous angles (Farid in prep). In order to prevent walls from collapse, extra walls were occasionally put in front of the original walls (Farid in prep; Matthews in prep). There is also evidence for gradual abandonment of building, in which only a small part of a building was used in its final stages, as is the case for ÇRP.1 (Cessford in prep-c). Finally there is evidence of collapsed walls and roofs (Stevanovic and Tringham 1999).

6.3.1 ROOMS OF ÇATALHÖYÜK

The following discussion of room sizes is based on the evidence from both the 1960s and the ÇRP excavations, whereas the buildings obtained with the scrape methodology have been excluded. Before proceeding to the actual discussion of room sizes I will briefly discuss the rationale for this approach. First, it was considered wise to only include excavated buildings in the analysis at this stage. As a participant in the 2003 scrape campaign at Çatalhöyük I know from first hand how problematic the plans obtained with the technique of surface scraping are. Given these circumstances only a few spaces in the scrape area can be distinguished accurately, and the evidence from the North Area and 4040 will for the moment be put aside. Second, a large body of excavated buildings is available at Çatalhöyük, and for that reason we can afford to be critical and exclude less reliable evidence, something which is not possible at some other sites, such as Canhasan III, where a scrape plan is all we have.

Out of the 406 rooms published by Mellaart the interior sizes of 354 rooms could be established. To these, 29 rooms can be added from the Çatalhöyük excavations in the South, North and BACH Areas. Those rooms that could not be measured were either excavated incompletely or their plans have not been published. The size distribution of the 383 rooms is presented in figure 6.7.

¹⁷¹ Recent dendro-chronological work at Köşk Höyük, a Middle Chalcolithic site near Niğde, has shown that the wood used in the construction of a building was cut 53 years before the wood incorporated in its successor (Öztan and Faydalı 2003, 49). Although Köşk Höyük is separated by over a 1000 years from Çatalhöyük and differs in many respects from that site, the use-life of the Köşk Höyük building seems to fit remarkably well with that proposed by Matthews (in prep) for Çatalhöyük on the basis of plaster counts.

The following characteristics stand out in the interior room size distribution of Çatalhöyük. First, the Çatalhöyük rooms are markedly larger than those found both at Aşıklı Höyük and Canhasan III, where the largest rooms were 21 m² and 19 m² respectively. By contrast the interior room sizes at Çatalhöyük range up to a maximum of 40 m², which constitutes a significant increase in size. Comparing the mean room size of Çatalhöyük (11.7 m²) to that of the two sites, the mean room is about similar in size to that of Canhasan III (10.7 m²), but markedly larger than that of Aşıklı Höyük (6.5 m²). Whereas most of the rooms seem to have been too small to serve as household loci at Aşıklı Höyük (§4.5.1), a function as a living room seems possible for most of the rooms at both Canhasan III (§5.5.1), and at Çatalhöyük.

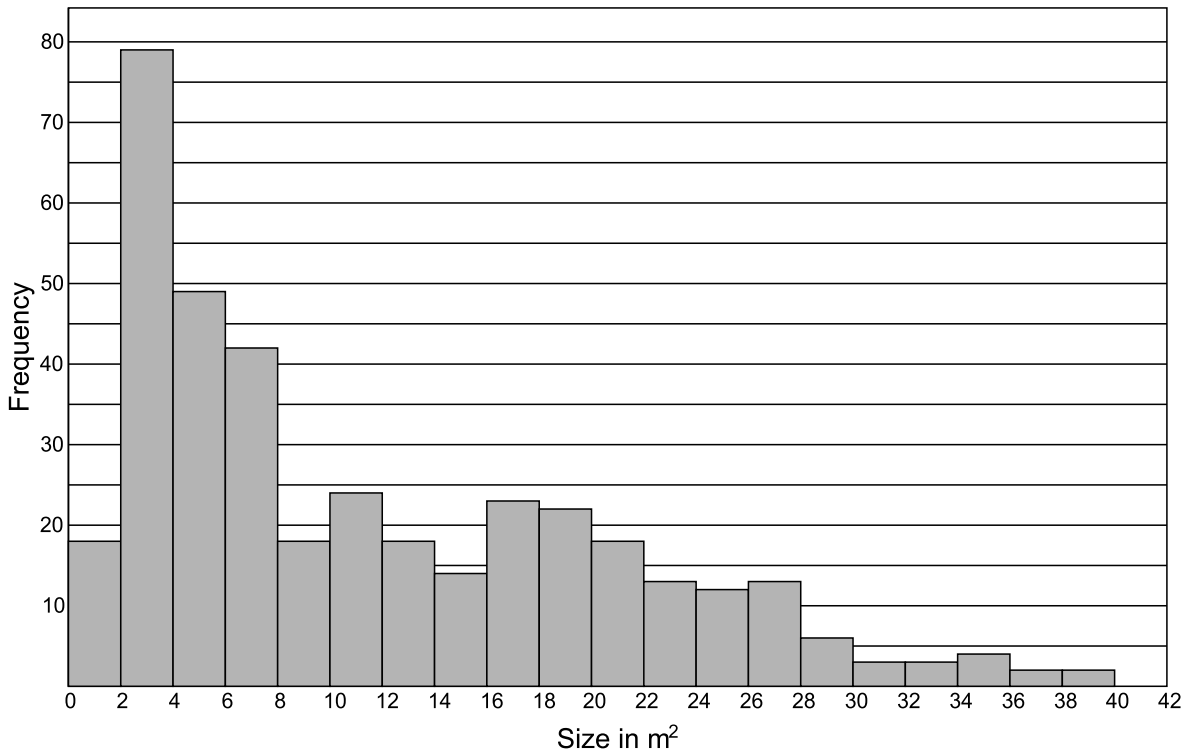


Figure 6.7: Interior sizes in m² of the Çatalhöyük rooms excavated in the 1960s and in the 1995 – 1999 Çatalhöyük Research Project excavations (n=383, mean 11.7 m²).

From figure 6.7 it is apparent that the Çatalhöyük room sizes do not form a standard bell-shaped curve, and it appears that the figure conflates several distributions and is in fact multimodal. There is a clear peak in the lower reaches of the distribution at ca. 2-5 m², and a gradual decrease of frequencies up to the maximum of 40 m². Given the restricted sizes of the smallest units at Çatalhöyük that measure 2-5 m² it can tentatively be suggested that these might have served as secondary rooms. The larger rooms may have potentially been used as living rooms.

At Çatalhöyük it is possible to move beyond such a metric evaluation and classify the excavated spaces on the basis of the features present in the rooms. Given the presence of these features a functional assessment can be made for each room. The distribution of features over the settlements will be discussed more extensively later in this chapter (§6.4.1-12), but for the present purposes three classes of rooms are distinguished. Rooms containing fire installations (either hearths or ovens, or both) and compartments were classified as ‘living rooms’. Smaller rooms lacking these features but contained within the same set of outer walls as a living room were classified as ‘ante rooms’. All rooms falling outside these definitions were classed as ‘indefinite’. The size distribution of these differentiated rooms is represented in figure 6.8. From this figure it is

apparent that there is a clear relation between room size and room function. The large majority of rooms larger than 12 m² can be classified as living rooms, with an average size of 20.9 m². Amongst the smaller room sizes, in the majority of cases we are dealing with ante rooms, averaging at 4.7 m², while the remainder of spaces are ‘indefinite’. From these relations between room function and room size it seems clear that at Çatalhöyük size is related to and indicative of use.

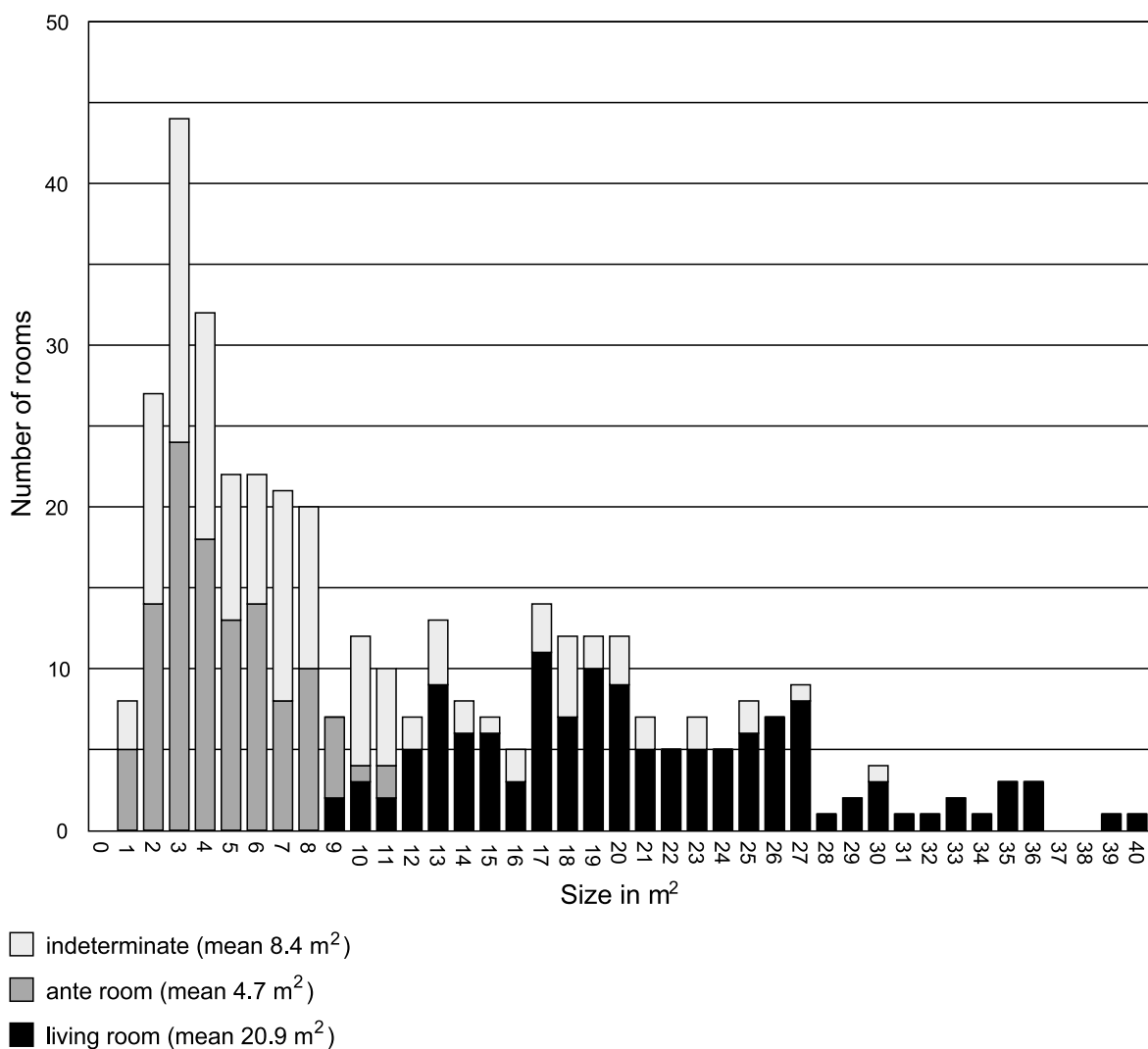


Figure 6.8: Interior room sizes in m² at Çatalhöyük specified per room category (n=383).

A further point I want to address in this section is the large room size attained by some of the living rooms at Çatalhöyük. The largest rooms at Aşıklı Höyük and Canhasan III were in the range of 20 m², yet at Çatalhöyük we find rooms measuring up to 40 m². It seems that some sort of difference in building technology must have allowed the inhabitants of Çatalhöyük to create larger rooms than had been possible at Aşıklı Höyük and Canhasan III. In order to throw more light on this issue it is useful to introduce a scatter diagram in which interior room widths and lengths of Çatalhöyük are presented (fig. 6.9).

One surprising conclusion that can be drawn from figure 6.9 is that the width of many of the Çatalhöyük rooms considerably exceeds the maximum width of about 4.5 metres attested in ethnographically documented vernacular building traditions of the Near East with loam roofs

(§3.3.7), and which seem to apply also for buildings at both Aşıklı Höyük (§4.3.1) and Canhasan III (§5.3.1). Although it is possible to span larger distances with high quality timber, this poses considerable technical difficulties and is normally not found in vernacular loam building traditions (Facey 1997, 120). Given these considerations it is more likely that some sort of extra support was introduced at Çatalhöyük that made these large spans possible. It could be suggested that this took the form of the embedded posts and buttresses found in many rooms. Such features have not been noted at Aşıklı Höyük and Canhasan III. This issue will be dealt with more extensively below (§6.4.8).

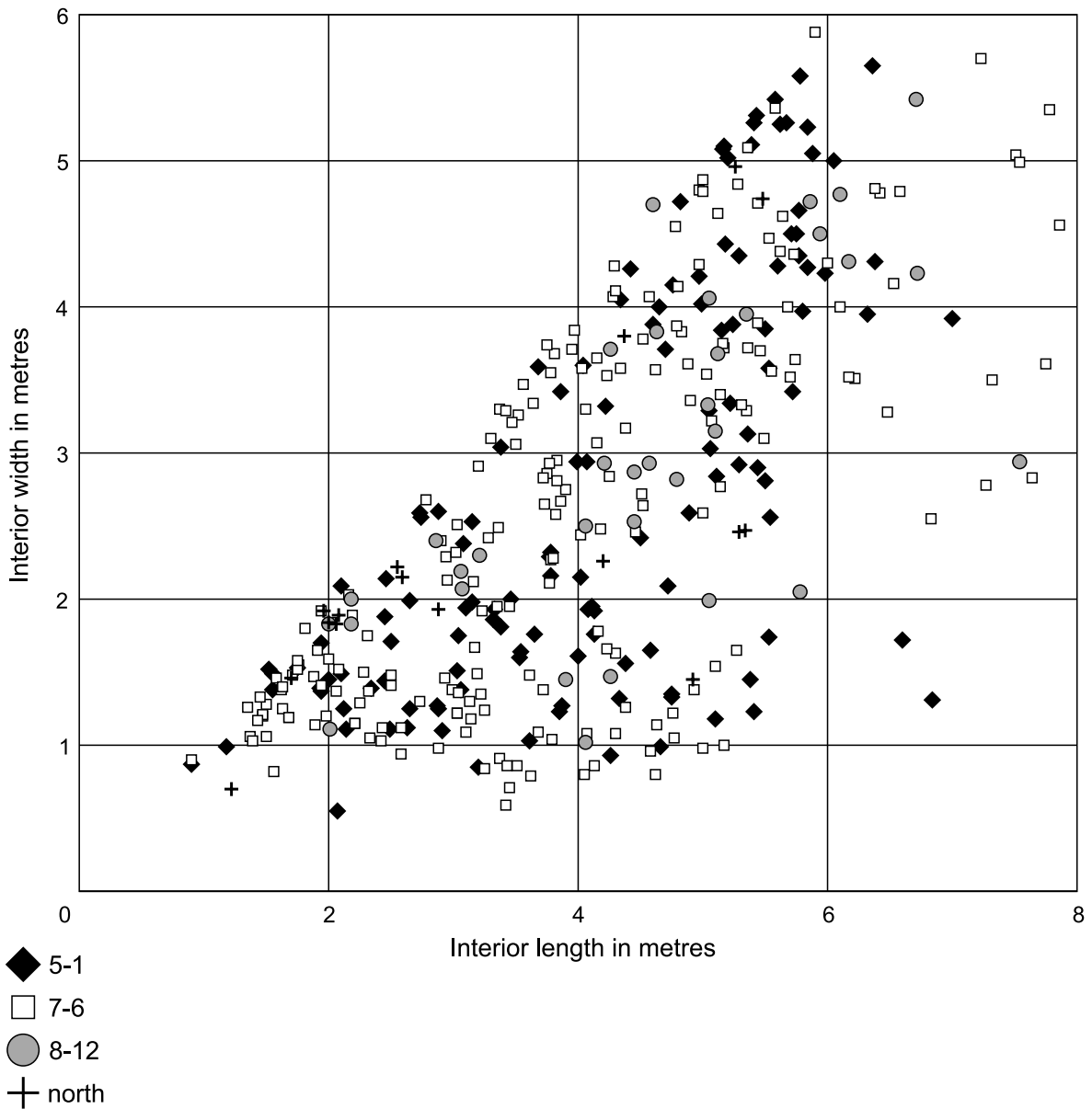


Figure 6.9: Scatter plot of interior dimensions in metres of the Çatalhöyük rooms specified per cluster of levels and for the North Area (n=383).

Another conclusion that can be drawn from figure 6.9 is that there do not seem to be any clear differences in the room sizes of different building levels. Thus no development seems to occur in this respect over the millennium to which we can date the level XII to I sequence at Çatalhöyük.

6.3.2 DEFINING BUILDING UNITS AT ÇATALHÖYÜK

In most cases defining building units at Çatalhöyük is a relatively simple task. In the large majority of buildings, party walls were not in use. This means that each building is surrounded by its own set of outer walls and can be clearly defined on that basis. Given this characteristic it is often a relatively simple task to distinguish buildings from each other (Düring 2001, figs 1-8), although occasionally problems may arise in the practical application of this principle. One major obstacle in this regard is the poor resolution of some of the plans published by Mellaart.

There are, however, some clear exceptions to this modular way of building. One example, that has already been noted earlier, are the ‘twin buildings’ that contain two living rooms that are interconnected via internal doors or portholes and share outer walls. Twin buildings for which the evidence is particularly clear are ÇRP.16 (IX.8) / ÇRP.22 (IX.1), their predecessors ÇRP.18 (X.8) / ÇRP.23 (X.1) (Farid in prep), and VIB/A.7 / VIB/A.14.

Apart from these twin buildings we should also consider the possibility that some of the Çatalhöyük buildings may have constituted complexes incorporating more than two living rooms, although the evidence for these complexes is less unequivocal. Possible complexes of this kind could be constituted by rooms 17/19/20 of level VII, 18/34/57/58/59 and 7/11/13/14/16/17 of level VIB, and 14/15/16/18/Z6/Z7/Z8/Z9 of level V. In the absence of detailed documentation it is difficult to assess the question whether these were indeed large complexes. Certainly in some cases, such as the twin buildings already mentioned and in buildings VII/VIB.24/25 and VIB.18/34, there is clear evidence for units containing multiple living rooms connected with one another by internal doors.

Given these cases the position taken by Cutting (in prep) that such complexes “can be redefined using variation in the thickness of walls, the distribution of features and an awareness of what is happening directly below and above”, seems misguided. In effect this method calls for a projection of discrete houses onto the Çatalhöyük evidence even when these cannot be substantiated by the evidence. I would prefer to take the data more seriously, rather than reify models that suit the modern mind. If one thing is clear at Çatalhöyük it is that the household was not the autonomous and paramount unit it is in our own society, and that households were incorporated into larger conglomerates (Düring and Marciniak 2005).

In this study I will maintain the definition proposed earlier that a building at Çatalhöyük consists of all spaces that share the same exterior walls, and by extension are located beneath the same roof (Düring 2001, 5), while acknowledging that poor resolution of some plans may affect the analysis. The buildings defined in this manner are not synonymous with households. Some buildings may incorporate several households, and in other cases a single household may have used several (small) building units due to the lack of a suitable building plot.

On the basis of the proposed definition of building units as all spaces beneath a single roof, the size distribution of such units is represented in figure 6.10. Apart from a few outlying cases the distribution of building unit sizes in this figure is remarkably regular. The building units measure between 5 and 50 m² and mostly consist of living rooms either with or without additional smaller rooms. Five classes of building units can be distinguished on the basis of the articulation of the outer walls: first, there are single rooms, whose function could not be determined; second there are buildings containing multiple rooms, none of which could be classified as a living room; third there are single living room buildings; fourth there are buildings containing a living room and one or more additional ante rooms; fifth, some buildings contain multiple living rooms and one or more ante rooms.

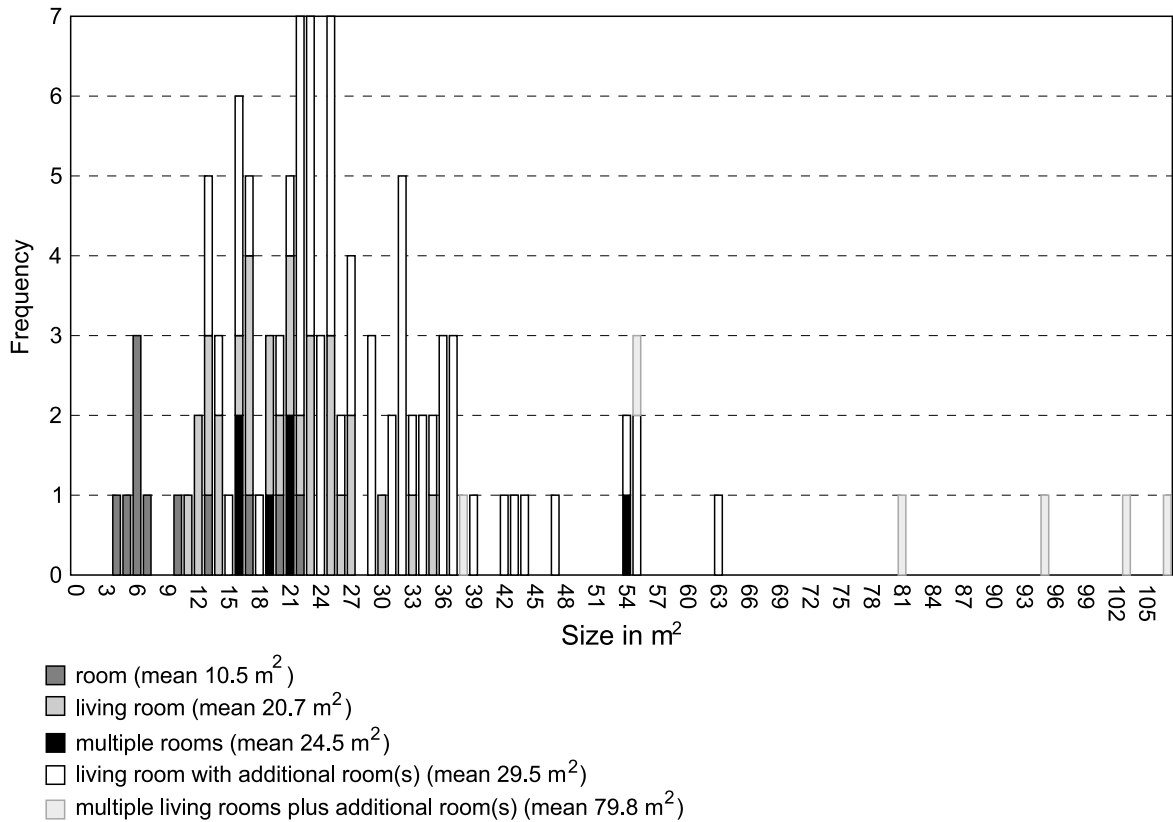


Figure 6.10: Interior sizes in m² of Çatalhöyük building units (n=105).

There are two types of diverging units represented in figure 6.10. First, there are a few small independently roofed structures below 10 m² in size that lacked fire installations and hearths, and most likely functioned as storage rooms subsidiary to other larger units. Of course, the exact relations of such spaces to other buildings cannot be determined. Second, there are a number of large units incorporating several living rooms and ante rooms. The most conspicuous multiple living room units are VIB.18/34/57/58/59 (with 3 living rooms and 4 additional rooms), VIB.7/11/13/14/15/16/17 (3 living rooms and 6 additional rooms), V.14/15/16/18/Z6/Z7/Z8/Z9 (5 living rooms and 4 additional rooms), and III.01/07/08/09/11/13 (3 living rooms and 5 additional rooms).

It is possible that some of these larger units could be subdivided into smaller units if better documentation existed. However, as has already been pointed out, at least some of the multiple living room units are interconnected at the ground level by doorways and / or portholes. Examples of such units are the twin buildings that have already been mentioned. These examples serve to demonstrate that buildings incorporating several living rooms did exist at Çatalhöyük. At least in these cases a special relation between the groups attached to the living rooms in interconnected units may be presumed.

The majority of building units at Çatalhöyük consisted of a single living room either with or without ante rooms. Removing the two 'atypical' groups of units, that is the small indeterminate rooms less than 10 m² in size and the large multiple living room units, the distribution of building units is highly regular (see fig. 6.11). The average size of the single living room units is 20.7 m², that of living rooms with additional ante rooms is 29.5 m², and that of these two groups combined 26.6 m². The majority of these buildings (90%) have internal sizes ranging between 12 and 38 m². Furthermore, the few multiple room units in which no living rooms could be distinguished conform

closely to this size range, and are probably living room units that were poorly preserved, due to which hearths, ovens and compartments could no longer be distinguished.

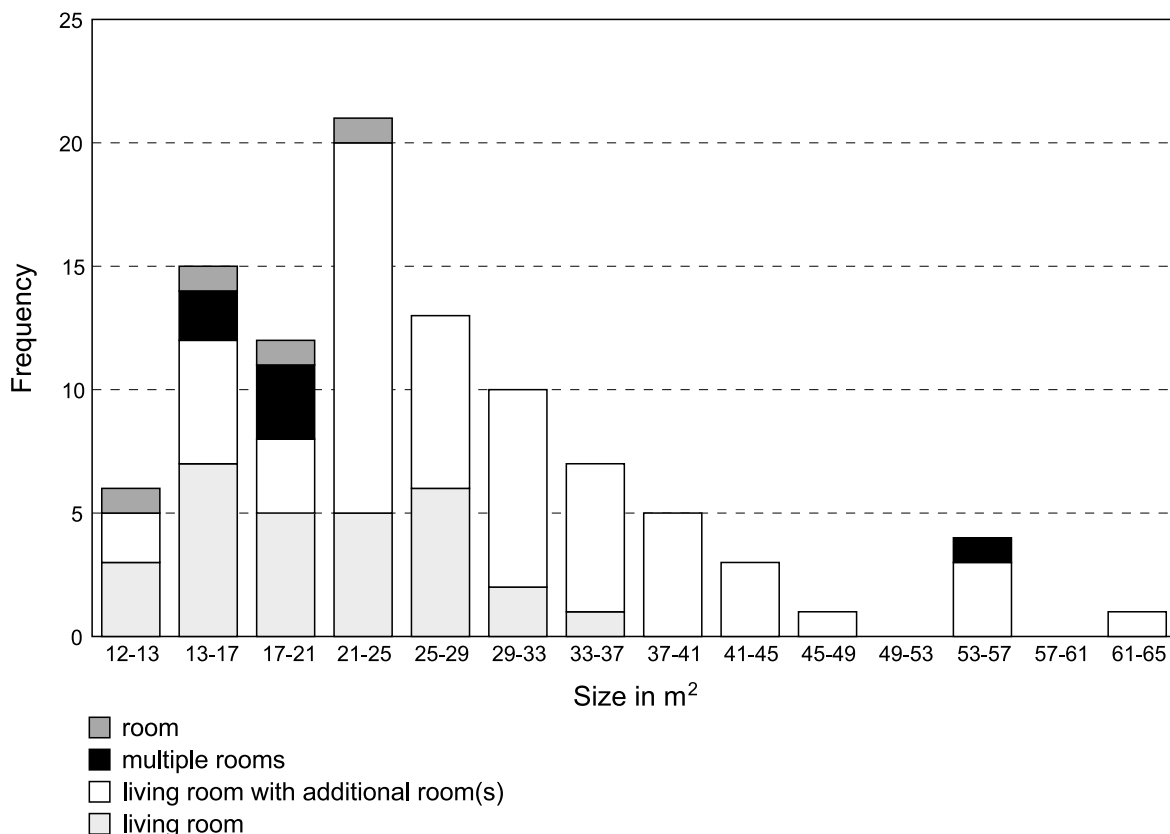


Figure 6.11: Interior size distribution in m² of a selection of the Çatalhöyük building units (n=97), excluding single room units below 12 m² in size, and multiple living room units.

The large majority of these single living room units consist of either a single living room, or a living room with one or two additional rooms (see fig. 6.12). Thus, both in size and in the number of rooms, the single living room buildings are well-defined interchangeable modular entities. Occasionally one encounters larger units with five, six or even eight rooms, such as VII.04, F.V.1, IV.15, and II.A1. Only 13 out of the 97 buildings contained more than three rooms, amounting to about 13%.

These multi-room buildings can be separated into two categories. First, some building plans of the 1960s seem to represent a palimpsest, in which different stages of the development of a building are presented on the same plan. From building ÇRP.1 it appears that in some buildings, parts of the building were abandoned towards the end of the use-life of the structure, and were sealed off with a wall. Thus the scrape plan of ÇRP.1 shows four rooms, but this represents a complex series of spatial changes to this building, that normally would have had about three rooms in any phase of its existence. Similar circumstances might explain the atypical plans of buildings VII.38, VII.4, and III.6. Second, there is a category of very large multi-room structures, such as F.V.1, IV.15 and A.II.1, which seem to appear from level VI onwards (VIB.34 and VI.61 are of a similar scale).

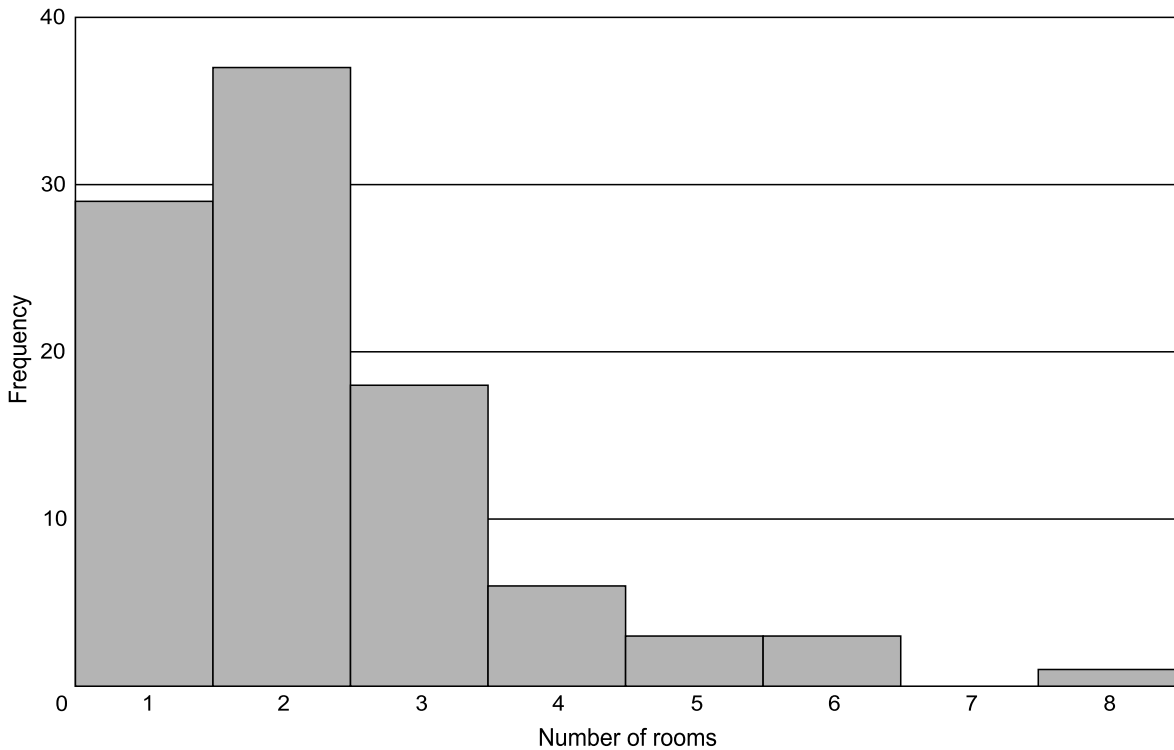


Figure 6.12: Number of rooms in a selection of the Çatalhöyük building units (n=97), excluding single room units below 12 m² in size, and multiple living room units.

The method of defining building units outlined in this section, by grouping all spaces that share a set of outer walls, suffers from two drawbacks. First, it requires accurate documentation of the relations of walls at the intersection of units. The poor resolution of some of the Mellaart plans has already been alluded to. However, even in the current excavations, in which much more attention can be given to details, the exact outlines of walls and relations between walls can be very difficult to establish.

A second, more fundamental problem with the approach is that it reifies the initial construction phase of buildings at the expense of later developments. The distinction of units that one arrives at is thus static, and does not allow for dynamic developments. At Çatalhöyük the new excavations have convincingly established the dynamic nature of buildings, and in some cases the relations between adjacent rooms may have been altered by closing up existing doorways or opening new ones. Units encompassing multiple living rooms at the time of construction may have been conceived as combined households, but could have been subdivided at a later stage. In other cases buildings that were originally part of different units might have been connected by doors or portholes, which were sometimes cut through double walls, in later stages of their existence.¹⁷²

Such reconfigurations of spaces seem to be rare at Çatalhöyük, however, and most buildings tend to be redeveloped within the boundaries set by their outer walls, not only during the occupation of a building, but also through multiple rebuilding episodes (§6.6.1). Çatalhöyük buildings generally do not seem to expand and shrink in the course of their development, although clear exceptions, most notably ÇRP.1, can be noted. Thus the fact that ‘the outer walls methodology’ followed here does not allow for dynamic changes in the configuration of rooms may not be a problem for most buildings at Çatalhöyük.

¹⁷² Possible examples where such internal connections may have been documented are buildings: VIII.29 / VIII.31; VII.8 / VII.3; VIB.10 / VIB.28; and V.4a/4b/4c.

Moreover, the definition of building units outlined here is the only possible methodology that foregrounds the 1960s Çatalhöyük evidence rather than the assumptions researchers bring to bear concerning what a typical house should consist of. Further, as is clear from figure 6.10-12 the building units that appear from this exercise are consistent. Three types of unit can be distinguished: first, small buildings less than 10 m² in size without compartments or fire installations; second, units with a living room with or without one or two additional rooms; and third, large units containing several living rooms as well as additional rooms. No doubt the ongoing excavations at Çatalhöyük will further elucidate the dynamic developments of these three categories of building units, and show how rooms and buildings might develop from one state to another, but I doubt whether the classification of buildings proposed here will be affected much by this.

6.4.1 SPATIAL DISTRIBUTIONS IN BUILDINGS

At the outset of this discussion of the distribution of features, deposits and artefacts over the Çatalhöyük settlement, it is important to draw a distinction between the spatial distribution of fixed features on the one hand, and moveable materials (including objects, various kind of deposits, and faunal and macro-botanical remains) on the other (§2.3.3). This distinction may not always be clear-cut, as is exemplified by the case of grinding stones that were often part of the fixed environment in a building, but which were nonetheless often removed at some stage: but generally speaking we can distinguish between mobilia and immobilia.

The preservation of these two categories of material residues within buildings differs radically, and this has important repercussions for the analysis of spatial distributions at Çatalhöyük. In general, fixed features of buildings can often be reconstructed, even if they have been removed, whereas *in situ* artefacts and deposits in buildings are rare at Çatalhöyük, and when present generally relate to practices surrounding the abandonment of a building, rather than its occupation.

An exception can be made for evidence on the micro-scale that becomes embedded in the building matrix, consisting of micro-artefacts, chemical residues, and the composition of floors, which may inform us on what happened where during the occupation of a building (Matthews *et al.* 1996; Matthews *et al.* 1997; Cessford 2003; Hodder and Cessford 2004; Middleton 2004; Matthews 2005), but this kind of evidence is available for only a few buildings at Çatalhöyük.

These micro residues can be studied with a range of fine-grained methods, including the analysis of heavy residues from sieving and micro-morphological analysis of thin sections of deposits using microscopes, phytolith analysis, and chemical analysis of floor samples. All these methods are labour intensive and depend upon careful procedures of excavation, documentation and sampling. The implementation of these methodologies in the ÇRP has made the progress of excavation much slower than at other sites. Field archaeologists working at the site have often argued that the demands of the specialists are too time consuming and that the results of this type of analysis are often disappointing or questionable (Cessford in prep-c). For instance, Cessford (2003) has argued that the results of heavy residue analysis of floors are mostly related to the material inclusions of the material used for the construction of floors rather than their use, because wall plaster heavy residue analysis gives highly similar results.

While Cessford may be right in arguing that a large part of the evidence at the micro-scale relates to factors other than occupation, there is much clear and consistent patterning coming out of the micro-scale analyses that does provide evidence on the use of space. The micro-scale of analysis is of great potential to archaeology, and some examples will be presented in this chapter (§6.4.3).

The buildings at Çatalhöyük were, as a rule, rigorously cleaned upon their abandonment, which often involved the scouring of floors and the removal of a range of features (§6.2.3). During the occupation of these buildings, floors and features also seem to have been kept remarkably

clean. Due to these circumstances it is rare to find objects or other traces of the activities performed inside the buildings of Çatalhöyük.

However, *in situ* objects and deposits are not completely absent from the buildings at Çatalhöyük. We can distinguish three types of contexts to which *in situ* objects and deposits can be related. First, there are intentional deposits that are related to the occupation of a building. Here the most prominent examples are burials and sub-floor caches. Other examples are objects or faunal elements intentionally placed in features or embedded in the walls. These intentional deposits are characterised by their permanence, and will be analysed as if they were as fixed features (see below).

Second, there are intentional deposits relating to the abandonment of a building. I have already noted examples where human skulls were placed in a building prior to its infilling, in other cases figurines were found in a similar context (§6.2.3). Feasting deposits are also commonly associated with the abandonment of a building (Russell and Martin 2005, 54-5). Finally, Hodder and Cessford (2004, 33) have argued for the placement of a group of bone and obsidian objects in a 'moulding-retrieval-pit' in ÇRP.1.

Third, there are a number of buildings at Çatalhöyük that were burned. It is possible that the vegetal deposits and objects found within these buildings were trapped in the fire. Some have argued that the burning of buildings at Çatalhöyük was intentional, however (Cessford and Near in prep), which could imply that inventories of these buildings might have been arranged prior to setting the structures on fire. In order to be convincing, however, the argument for the suggested intentional nature of these fires needs to be further substantiated (Harrison 2004).

Factors that complicate the study of the distribution of artefacts and deposits in the Çatalhöyük settlement are the *resolution* and the *coverage* of the published data from the 1960s excavations. The *resolution* of the data is often poor in that objects may be identified as deriving from a specific building, but it is generally not clear in what context the object was found: whether it derives from the building fill, was located on the floor, was found in a grave, etc. The *coverage* of the data is insufficient for spatial analysis because objects and deposits are not systematically discussed in the Mellaart Archives. For instance, Mellaart discusses a total of 80 figurines in his publications, but over 254 figurines were found by Hamilton (1996) in the Konya and Ankara Museums. Likewise, Mellaart mentions 38 buildings containing some element of chipped stone but in the curated assemblages of the 1960s excavations there are chipped stone assemblages from 110 buildings (Conolly 1999a, 80). Such examples serve to demonstrate that the published information on the distribution of finds and deposits at Çatalhöyük is far from complete, and nothing much can be based on the patterning of that data that can be extracted from the publications. The coverage of the data could be improved to some degree by a careful study of the extant assemblages from the 1960s, as carried out by, among others, Hamilton and Conolly, but the same does not apply for their resolution.¹⁷³

In contrast to the moveable artefacts and deposits, the spatial study of fixed features at Çatalhöyük is relatively unproblematic for two reasons. First, fixed features are present in most of the Çatalhöyük rooms and their interpretation is, in most cases, more or less straightforward (§2.3.3). Their relation to the occupation of a building can be clearly established and the explanation of the function of fixed features is generally unproblematic. Second, fixed features are relatively well published at Çatalhöyük: most of them appear on the plans, and many are discussed in the text. Features that do not appear on plans, such as paintings, mouldings, and sub-floor burials, are often discussed at length, or can be relocated through an analysis of the 1960s archives.

Categories of fixed features that are common include: storage features, often described as bins, basins, silos, cupboards, and niches; hearths and ovens; compartments and benches; posts and buttresses; pits, scoops and caches; moulded features and installations; paintings; and sub-floor

¹⁷³ In this light, the article by Becks and Jacob (1996) in which 'prestige goods' are plotted over the Çatalhöyük settlement, and that serves as the basis for conclusions on social hierarchy, seems suspect.

burials. Compared to the other sites in this study the Çatalhöyük buildings are remarkably ‘rich’ in features. That circumstance provides an ideal database for a spatial analysis based primarily on the features.

It is apparent that the potential for spatial analysis of the 1960s data differs greatly for micro-scale evidence and moveable artefacts and deposits on the one hand, and fixed features on the other. Consequently in this chapter I will focus mainly on the fixed features, although the micro-scale data will briefly be introduced using data from the ÇRP. First, however, it is necessary to discuss the internal configuration of space in the Çatalhöyük buildings.

6.4.2 THE COMPARTMENTALISATION AND ORIENTATION OF INTERIOR SPACE

Before it is possible to discuss the spatial configuration within buildings at Çatalhöyük and to compare different buildings with one another, it is necessary to examine the internal spatial configurations of these buildings, and here I will focus on two aspects of this configuration: *compartmentalisation* and *orientation*. A difference is drawn here between the class of rooms that I label ‘living rooms’, and other rooms at the site. Living rooms can be distinguished on the basis of: first, their size (§6.3.1); second, the quality and quantity of plaster on their walls and floors (§6.2.5); and third, the presence of features such as hearths, ovens, and compartments (§6.4.5-6). The compartmentalisation of space and the differential orientation of features occur predominantly in the living rooms, whereas other rooms are less structured in these respects.

Çatalhöyük living rooms are subdivided into a number of compartments by means of low plastered ridges. The areas that are demarcated in this fashion were called platforms by Mellaart and have retained this designation in the literature. However, in many cases the difference in elevation between two adjacent areas separated by plastered ridges is negligible, and thus the term ‘platform’ suggests a vertical ordering of space that does not always exist.¹⁷⁴ I will argue that the compartmentalisation of space is of key importance rather than the creation of a raised feature resembling a bed or bench.

A proper understanding of the nature of these ‘platforms’ is of some importance for a number of reasons. First, the platforms are not the Çatalhöyük equivalent to modern furniture. The uses to which they were put certainly include some of the same functions as furniture, but they were associated with a wider set of activities, including cooking, eating and craft activities, as well as burial practices. The uses to which any one compartment in a building was put may have been quite circumscribed at any point in time, and the use of specific platforms may have been determined in part by a spatial code adhered to by the people of Çatalhöyük. The dimensions and functions of the platforms varied considerably (§6.4.5). Some of the compartments contain features such as ovens or bins. Thus, the different compartments that we lump in the general class ‘platform’ and that are used for a diverse set of practices, may have not have constituted a relevant category to the people at Çatalhöyük (much like we prefer to use ‘bedroom’ and ‘kitchen’ over the more generic and less precise ‘room’).

Second, the conceptualisation of platforms as a kind of Neolithic furniture has in some cases sparked rather pointless discussions about which of two areas separated by a ridge should be classified as a platform, and which area does not qualify as such. The essence of the ridge is to visually and cognitively compartmentalise a space, rather than to create a piece of furniture. Thus the separation is of essence rather than that which is separated.

The configuration of the Çatalhöyük living rooms seems to adhere to a standardised organisation of space, in which the features of the buildings are located in a specific constellation and orientation. Although numerous exceptions to this spatial organisation exist, nonetheless, this code seems to have been pervasive, and it is plausible that some sort of ideal of what a building should look like existed. The following elements can be found in this ‘ideal’ building (fig. 6.13).

¹⁷⁴ This point is of some importance because some authors have built on the idea of such a vertical order of space to interpret symbolism and cosmology at Çatalhöyük (Lewis-Williams 2004).

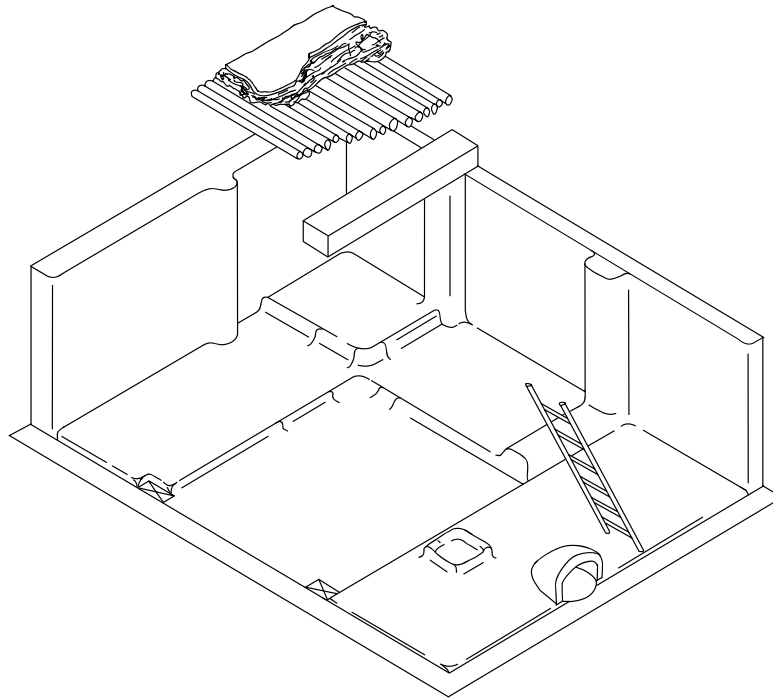


Figure 6.13: The spatial organisation of a typical Çatalhöyük living room (based on figure 11 in Mellaart 1967).

The compartmentalisation of space in the living rooms into a number of compartments was often done in a more or less standardised manner, following a more or less fixed orientation. Usually a square compartment can be found in the northeastern corner of the building, and two rectangular compartments are located along the walls to the south and west. Additional compartments may be found in other parts of the room. The compartment in the east-central area seems to have been of particular importance in the ordering of space, given the fact that most sub-floor burials seem to be located beneath them, and that wall paintings and mouldings were concentrated on the walls behind these compartments. In general, it seems that the three main compartments in the northeast corner were amongst the cleanest areas in the living rooms (Matthews 2005, 392).

The features found within the Çatalhöyük living rooms also tend to be located in specific parts of these rooms. The boundaries of the east-central compartment are marked by a number of features. First, at the interface of the compartment ridges and the east walls one often finds posts or buttresses, and in many cases these are mirrored by two posts on the opposite west wall.

A second feature associated with the eastern compartments is a bench that often runs along its southern boundary, from the post set into the wall to the edge of the compartment. This 'bench' is usually about 40 centimetres wide and about 30 centimetres high. Despite the fact that they are usually called benches it is difficult to reconstruct what these features were in fact for. In a few instances aurochs' horns were inserted sideways into these benches.

Third, along the southern part of the living rooms we generally encounter hearths. In some buildings ovens are found too, but these seem to be much less common. These two types of fire installations can be readily distinguished from each other. Hearths are rectangular raised freestanding structures, whereas ovens are ovoid in shape, have closed fire chambers, and are usually built adjacent to or partly within the walls.

Fourth, another feature generally located in the southern part of the living room was the ladder. These ladders were made of wood and are normally not preserved, but good evidence exists that allows us to reconstruct their location, and even the angle at which they stood. In many buildings plaster scars have been documented where the ladder once stood: these were the result of the accumulation of plaster around the ladders, which were apparently not removed during plastering activities.¹⁷⁵ Moreover, in one exceptional case the charred base of a ladder has been found (Mellaart 1963, pl. 16-b).¹⁷⁶

Mellaart has argued that the roof opening for the ladder also acted as a smoke hole for the hearths and ovens also located in the southern part of the building. Given the very regular co-occurrence in the same part of the building of hearths and ovens on the one hand, with ladders on the other, this does indeed seem likely. One issue that should be mentioned in connection with this interpretation is the fact that the ladder access probably had some kind of cover, perhaps removable, that kept rain, snow, dust, heat, and cold out of the buildings. Although the exact shape this cover took can only be a matter of speculation, we can envision a feature that, on the one hand, would shelter the interior from unwanted elements of the environment, but, on the other hand, would have stimulated the circulation of air by creating a draft, so that the smoke would be drafted out of the room during bad weather conditions also.

Apart from these characteristic elements that can be found in every living room at Çatalhöyük, there are a number of additional features that occur in some of these rooms. These include domestic features such as bins, silos, and benches, but also a group of 'non-domestic' features such as wall paintings, mouldings and sub-floor burials. While this latter group of non-domestic features is not completely absent from other types of rooms, the large majority of them are located within the living rooms (§6.4.10-12). The often spectacular imagery found in these rooms has led Mellaart to interpret some of the buildings containing such features as shrines (1967, 78). I will discuss this distinction later (§6.5.4).

The consistent configuration and orientation of elements in the Çatalhöyük living rooms leads to the question why these spaces are structured the way they are. Several models have been posited, ranging from functionalist explanations relating to the illumination of buildings, to ideational factors to do with orientation towards landmarks and symbolic systems embodied in the house (§6.5.3). In order to evaluate these explanations it is necessary to investigate first how much buildings vary from the configuration sketched in this section.

6.4.3 SPATIAL DISTRIBUTIONS ON THE MICRO-SCALE

Micro-scale analysis of archaeological deposits and surfaces is a relatively recent development (Matthews *et al.* 1997; Cessford 2003; Middleton 2004; Özbal *et al.* 2004). At Çatalhöyük this type of research has only been performed in the new excavations and hence the data available are restricted to a few buildings (Matthews 2005, Middleton *et al.* 2005). Here I will limit the discussion to a few general comments.

Chemical examples of floor surfaces have been taken from four buildings (ÇRP.2; ÇRP.3; ÇRP.4, and ÇRP.5), and the clearest patterning was found in building ÇRP.5. The analysis focused on a large variety of elements, and subsequently statistical analyses were performed to find whether elements co-occur in specific combinations. In this manner Middleton and his colleagues (Middleton 2004; Middleton *et al.* 2005) were able to find clear patterning in the presence of chemical residues. In building ÇRP.5, five groups were distinguished on this basis (Middleton

¹⁷⁵ These ladders documented at Çatalhöyük seem to have stood at about 60° (Mellaart 1963, pl. 16-b; 1967, pl. 4), which is similar to the angle at which ladders are usually placed today.

¹⁷⁶ Similar features have not been reported from other Central Anatolian Neolithic sites so far, possibly because buildings were less intensively plastered at those sites. Another possibility is that ladders were placed transversely to the walls at these sites rather than perpendicular along the walls, as was the case at Çatalhöyük.

2004, 57-8). The first group was interpreted as 'general occupation area', and occurred mainly in the living room. The second group was classified as 'high traffic or very low activity area' and occurred near the base of the ladder. A third group of food residues, related to either storage or spillage, was distinguished, and this mainly occurred in the storage rooms near bins. Fourth, an ash scatter group was recognised, which was also located in the storage rooms (but not in the vicinity of a hearth or oven). Fifth, there was a clean group that was located on the main north-west compartment (*Feature F.154*) of building ÇRP.5.

A second analysis at the micro-scale has focused on the heavy residue that sinks in flotation. Given that 30 litre samples were taken from all deposits (if present) the densities of heavy residues deriving from floors of different building compartments can be analysed for patterning. In a recent article in which heavy residues fractions from floors and wall plaster were compared, Cessford (2003) has argued that the heavy residue relates primarily to the raw material used for constructing floors, rather than to activity related residues. However, in a subsequent publication (Hodder and Cessford 2004, 24-7) clear patterning is recognised, in particular it is argued that the area in the south of the Çatalhöyük living rooms associated with hearths and ovens is relatively dirty and contains relatively large amounts of bone and chipped stone fragments. Also, raised compartments in living rooms have relatively less heavy residue, and are thus cleaner (Cessford in prep-b).

A third method that has been used to study the micro-scale evidence at Çatalhöyük is that of micro-morphological analysis of sediments. In this method sediments are impregnated with resin, thin-sectioned, and analysed under the microscope (Matthews *et al.* 1997). I have already mentioned the key importance of this type of work in our understanding of the nature of the open spaces at Çatalhöyük (§6.2.1), and the plaster practices within the buildings (§6.2.5). The technique also has great potential for studying the manner in which specific compartments of a building were used and how that changed over time. The analysis seems to point to three main types of activities. First, the areas associated with hearths and ovens were plastered infrequently and are relatively dirty. Second, the floors in storage rooms are applied infrequently and are often weathered, but they are less dirty than the 'kitchen areas' of the living rooms. Third, the raised north-eastern compartments of the living rooms are plastered frequently with superior plaster, and are relatively clean (Matthews 2005, 392).

Finally, phytolith evidence may in some cases provide clues about the usages of space. Cessford (in prep-c, fig. 21) provides a reconstruction of the placement of various types of matting. In this reconstruction fine matting would have been present in some phases of the existence of building ÇRP.5 on the raised compartments of the living room and in the living room at large, and coarser matting would occasionally have been present in the adjacent storage rooms. He also reconstructs baskets in the storage rooms of ÇRP.1, although it is not entirely clear on what basis (Cessford in prep-c).

A wealth of data is thus emerging from micro-scale analysis of interior surfaces of buildings. It is important to note that these data reinforce and complement interpretations based on the presence of the fixed features. In accordance with expectations, the compartment of the living rooms in which hearth and oven are located have the dirtiest floors, the storage rooms contain residues of food remains, and the raised compartments in the north and east of the living rooms are generally the cleanest floors of the buildings, which accords well with the fact that they are associated with burials, paintings and mouldings. Thus, the micro-scale data enhance the plausibility that the compartmentalisation of rooms and the presence of features within specific compartments can be used to interpret the nature of activities that occurred in specific areas of these buildings.

6.4.4 SPATIAL DISTRIBUTION OF FEATURES IN THE 1960S ARCHIVES

In this section I want to reflect briefly on the nature of the 1960s archives and how these can be used for the study of the distribution of features across the settlement. The Mellaart Archives present us with a very static and highly simplified representation and discussion of buildings and

their contents. In general, buildings are presented as if they have only a single phase of occupation with a specific configuration of compartments and features. By contrast, a complex series of spatial modifications has been documented for the buildings excavated by the ÇRP, in which the division of compartments and the location of features often changed. Thus, for example, building X.1 / ÇRP.23 contained no less than 12 hearths,¹⁷⁷ whereas for the large majority of the buildings in the Mellaart Archives only a single hearth has been documented.¹⁷⁸ Likewise, most buildings in the Mellaart Archives have a single oven, if at all, whereas 5 ovens were documented for both ÇRP.1 and X.8 / ÇRP.18. Thus it is evident that many features are underrepresented in the single-phase representations of the Mellaart Archive.

This does affect the type of questions that one can ask on the basis of the Mellaart Archives. For instance, it is not possible to study the dynamic development of the buildings excavated in the 1960s, because the data that are needed for such an exercise are simply not available. However, there are other questions that can be asked on the basis of the Mellaart Archives. One of these concerns the classification of rooms: whether a room was a living room, or an ante room etc. Furthermore, the Mellaart Archives can be used to study the variability in compartmentalisation and the arrangement and orientation of features on a comparative level.¹⁷⁹ The fact that one specific phase of development of the 1960s buildings is documented is offset by the fact that we can compare many building plans with one another.

6.4.5 INTERIOR COMPARTMENTS, BENCHES, AND SCREEN WALLS

The living rooms at Çatalhöyük are divided by plastered ridges into a number of compartments. In some cases these compartments vary in elevation, but in others they do not. I have already argued that the concept ‘platform’ has unduly stressed the bounded area over the boundary itself, and that it is too narrowly associated with a furniture based interpretation, whereas compartments are much more than platforms used for sleeping and sitting (§6.4.2). What I want to do in this section is investigate the degree to which the compartments in the Çatalhöyük can be grouped into distinct categories, and what this could have meant.

A first characteristic of the interior compartments is that they are overwhelmingly associated with living rooms. Of the 497 compartments in my database, 470 (95 %) are located in living rooms, 7 compartments were found in ante rooms, and 20 in rooms that cannot be classified. Second, an obvious question relates to the orientation of the building compartments. For the purpose of this analysis the compartments were classified according to their cardinal directions (see fig. 6.14).

By far the most common part of the Çatalhöyük living rooms to be compartmentalised was the northeast, followed by east central, northwest, southwest, and southeast. Remarkably, compartments along the north wall are not as common as one would expect given that it is located opposite the ‘dirty’ kitchen area in the south of the living rooms. Instead the northeast seems to be the preferred orientation for creating compartments.

¹⁷⁷ However, the excavator notes the exceptional nature of this large number of hearths (Farid in prep), and other buildings excavated by the ÇRP contained fewer hearths, such as ÇRP.1 (3 hearths), and ÇRP.2 (3 hearths).

¹⁷⁸ In the earliest report the buildings were often represented with multiple hearths, and it is plausible that these belonged to different phases of occupation (Mellaart 1962, figs. 3 – 6).

¹⁷⁹ Normally the spatial configurations of buildings are recreated over the course of their existence, for instance hearths tend to remain in the southern part of the living rooms, even if they shift slightly in position from one phase to another. However, there are also clear examples where the internal spatial configuration of buildings is altered dramatically, as evidenced in the sequences of both buildings ÇRP.1 and ÇRP.17 (Cessford in prep-c; Farid in prep).

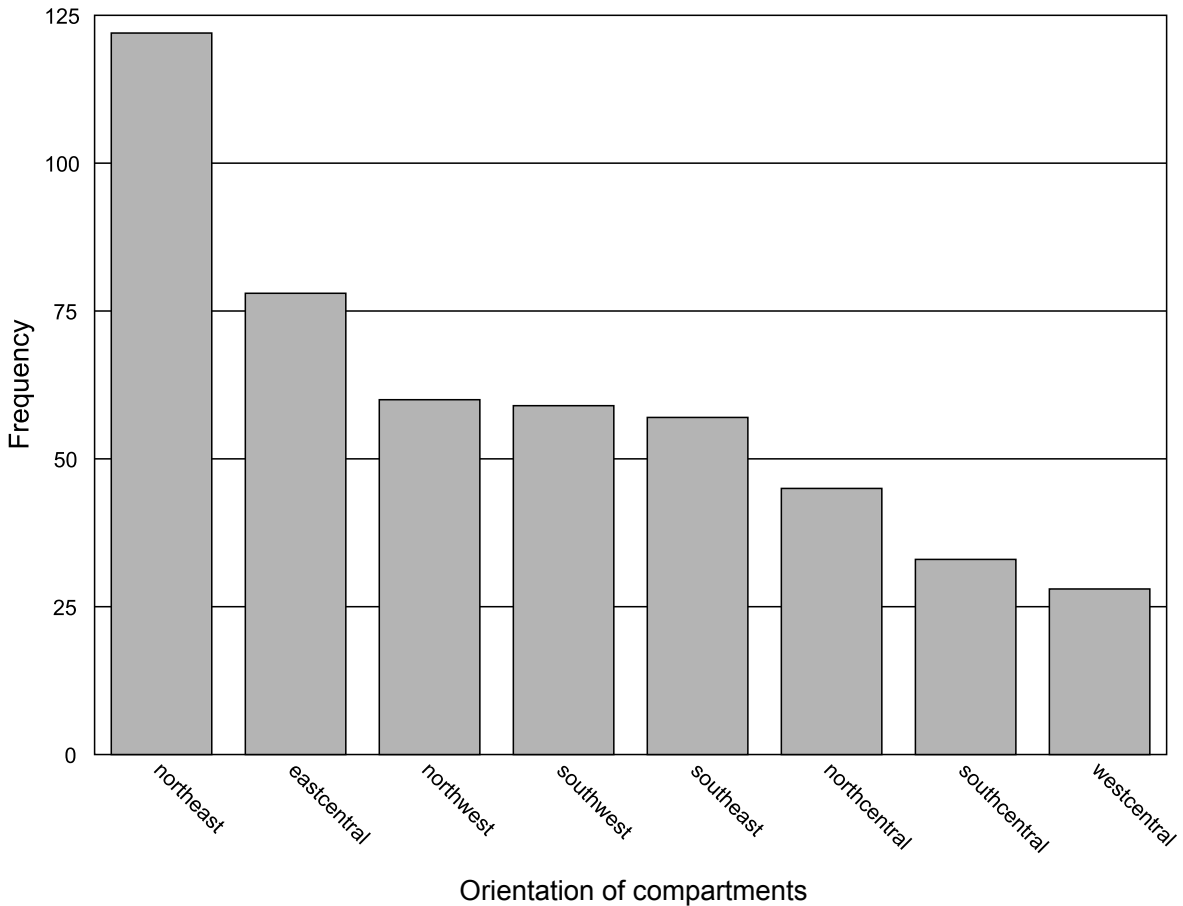


Figure 6.14: The orientation of the Çatalhöyük compartments (n=482).

Given that the number of compartments per room ranges from one to eight (average 3.2), it is of interest to investigate whether these compartments differ in any way from one another. One element that we can examine to clarify this matter are the dimensions of the compartments. In figure 6.15 I have classified the compartment lengths, differentiated by their orientation. Several conclusions can be drawn from the spread in this figure. The majority of compartments seem to be centred on the 1.30 – 2.60 metres interval, but hidden beneath this overall observation several different distributions appear. The northeast and east-central compartments dominate the assemblage and constitute the most regular group in the assemblage, peaking in the range of 1.4 – 2.4 metres. Second, the north-central and northwest compartments have a larger range from about 1.2 – 2.5 metres and are less regularly distributed. Finally, all the other compartments in the assemblage have irregular distributions.

Such an analysis of the regularity of the lengths of differentially oriented compartments suggests that the north-eastern and east-central compartments were the most standardised on a comparative level, and this could help to suggest that the functions of those compartments may have been more circumscribed than those of other compartments. We will now turn to one possible explanation for this standardisation of compartment lengths and size: the suggestion that some of the compartments may have been used as beds.

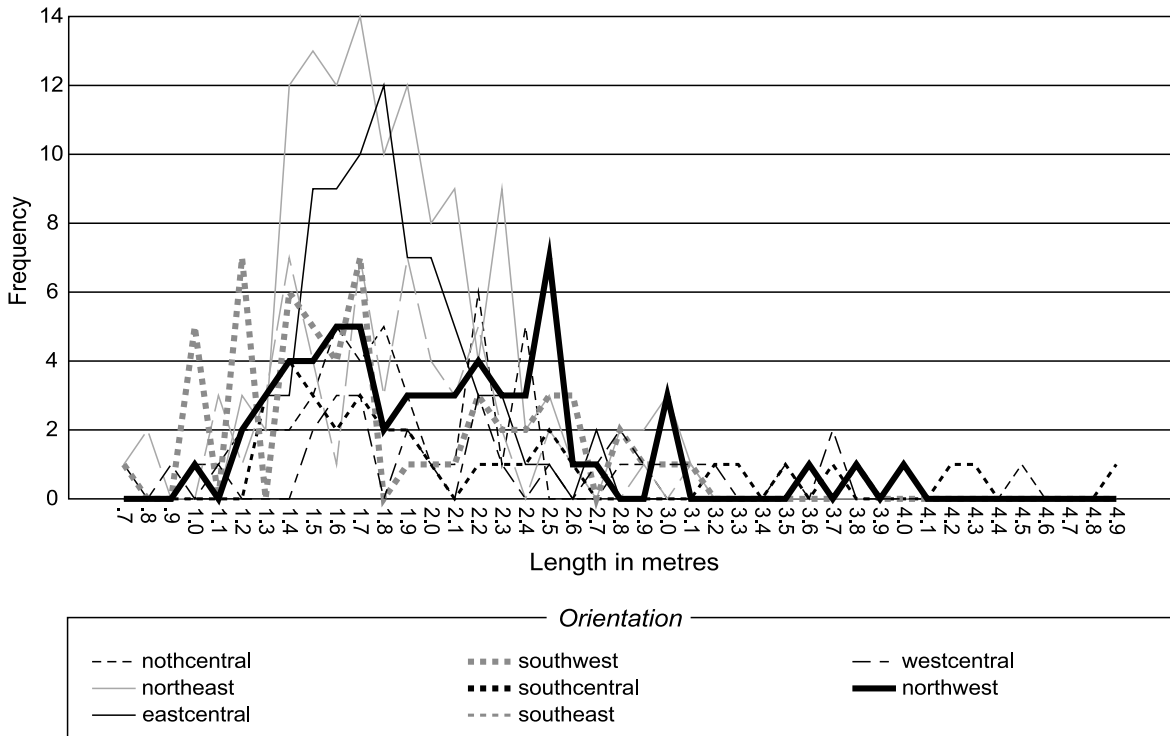


Figure 6.15: Lengths of Çatalhöyük building compartments in metres specified per orientation (n=482).

Compartments with a length of 1.30-2.30 metres may seem too short to have functioned as beds (widths would normally have been about 1.30 metres), but we should keep in mind that the stature of people at Çatalhöyük was small compared to modern people. Molleson *et al.* (2005, 286) reconstruct that the males at Çatalhöyük would have averaged at 1.63 metres and females at 1.54 metres. Thus 1.60 would have been the practical minimum length for a bed for most people at Çatalhöyük.

If we consider a typical room at Çatalhöyük we can evaluate the uses to which compartments might have been put at the site in more detail. Let us focus on building VIA.30 (see fig. 6.16). This building has a typical compartmentalisation for a living room at Çatalhöyük. In total we can distinguish five compartments in this room. To the south there is a large compartment of an irregular form that contains the hearth. In most buildings this part of the room is slightly lower than the adjacent compartments, and it is here that people would have entered the building with a ladder and where most of the cooking and processing of goods would have taken place (§6.4.3). In the west-central part of the building we find what I would call the central floor area, which is mostly of a rectangular shape, often slightly lower than the adjacent compartments to the north and east, and seems to have been an empty transitional area in the house.

Finally, in the north and west we find three compartments measuring 1.86 by 1.39 metres (northwest), 1.64 by 1.36 metres (northeast), and 1.70 by 1.41 metres (east-central), of which the east-central compartment was probably the most prestigious given that it is flanked to the south by a bench feature (*cf.* Mellaart 1967, 58-60; Farid in prep). The compartments in this part of the buildings are mostly plastered on a regular basis with high quality plaster. It is also in association with these compartments that burials are mostly found (§6.4.12). In theory each of the three compartments in the northeastern part of the room could have functioned as a bed for two people. This would imply that up to six people could have slept in this building, some of which would have been children. Of course we cannot exclude that people would have slept in other parts of the

buildings, or that not all three northeastern compartments might have been used as beds. However, given: first, the standardisation of compartment sizes; second, the emphasis on the compartmentalisation of buildings at Çatalhöyük; and, third, the fact the north-eastern compartments are much better kept than other parts of the houses, the hypothesis that these compartments were associated with sleeping and preferentially used over other compartments for this purpose does not seem unlikely (for a reconstruction of household sizes see §6.5.2).

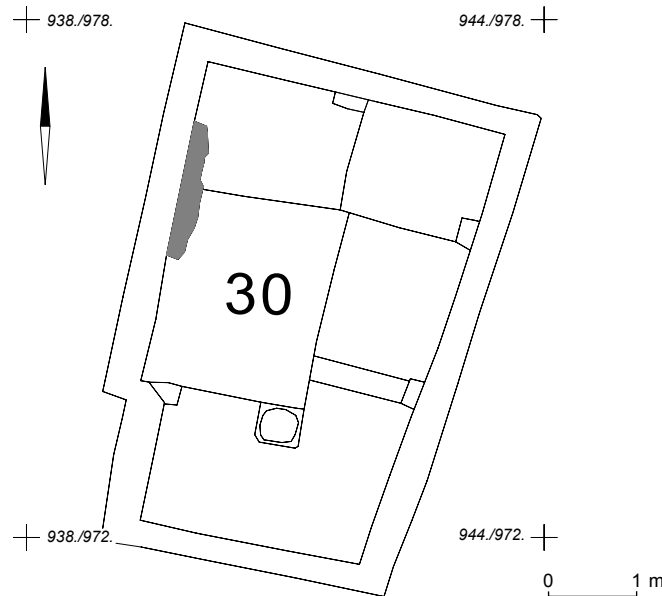


Figure 6.16: Plan of building VIA.30, the area in grey indicates the location of a moulding.

Much more problematic to interpret are the so-called ‘benches’. These are often located along the southern rim of the east-central compartment, but may also occur in other locations, running either parallel or perpendicular to the wall. These features do not occur in all buildings, but are predominantly found in living rooms. Out of 143 benches in my database 126 occur in living rooms (88 %), 7 were located in ante rooms, and 10 in rooms that could not be classified. These features generally vary in width between 20 and 60 centimetres, and in length between 0.5 and 2.0 metres. The majority of these ‘benches’ were oriented perpendicular to the walls (113 benches, or 79 %), while a minority was placed parallel to the exterior walls (21 %).

Most of the bench features were located in the eastern part of the building, generally along the southern rim of the main east-central compartment (see fig. 6.17). These ‘benches’ were probably not primarily for sitting on. Other features of the living room, such as the compartments in the northeastern part of these rooms, were better suited for this purpose. If benches were intended for sitting one would expect them to be located parallel rather than perpendicular to the exterior walls. Sitting on a wall perpendicular to the exterior walls means that one would have to turn ones back either to the southern or northern part of the room. Furthermore, if benches had been primarily used for processing of goods, one would expect these features to be clustered in the southern ‘dirty’ part of the room, rather than being associated with the ‘clean’ east-central compartments. In light of these considerations I suggest that the benches have most likely been used for one or both of the following functions: first, it is possible that they served as a kind of armrest for a person reclining to the south on the east compartment; and second, they could have been used for placing objects in a highly visible place, serving as a kind of shelf for display. This latter explanation could explain why benches were also sometimes used for inserting aurochs’ horns. Mellaart found at least five such benches with inset horns, and two additional features of this

kind were found by the ÇRP (*Features F.380 and F.1310*). I will return to these benches with inset horns later (§6.4.11).

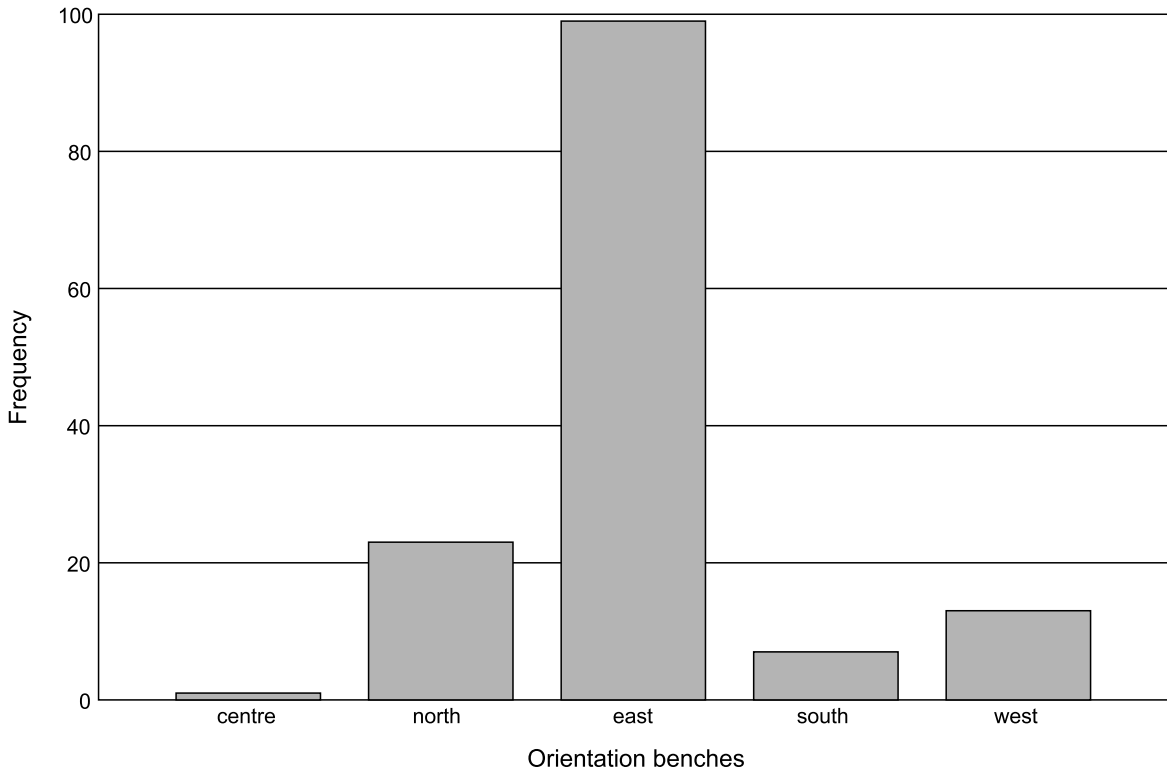


Figure 6.17: The orientation of ‘bench’ features at Çatalhöyük (n=143).

A final element that should be mentioned in relation to the compartmentalisation of Çatalhöyük living rooms are the ‘screen walls’. These are relatively insubstantial interior walls mostly made of wattle and daub or plaster that were inserted in a living room to separate off part of the room. Six of these interior walls appear in the Mellaart Archives and three additional ones were found by the ÇRP. The best-documented example is without doubt *Feature F.155*, which served to separate off the western strip of building ÇRP.3 that contained mostly storage features. Another screen wall, *Feature F.535* in X.1 / ÇRP.23, separated off space 200, the function of which is enigmatic (Farid in prep). Given that very few screen walls have been documented, little can be said concerning their function beyond the fact that they were occasionally inserted into existing spaces to separate off a part of that space. We do not know for instance, whether these walls continued upwards, or were only screens of no more than a metre or so in height.

6.4.6 HEARTHES AND OVENS

Two types of fire installations dominate at Çatalhöyük: hearths and ovens. Apart from these features there are occasional fire pits occurring in exterior spaces. Hearths and ovens can be clearly distinguished in most cases because they differ in a number of respects. Hearths tend to be freestanding circular or rectangular features that lack a superstructure, whereas ovens are larger domed oval structures built adjacent to, or sometimes partly within the exterior walls. As a rule hearths were reconstructed more often than ovens. In many cases the two types of features co-existed in the same buildings and it seems that these features served different purposes. Both features often had stones or clay balls incorporated into their floors, and were constructed with

loam. These features are easily recognisable due to the fact that hearth and oven floors were baked to a hard red to black matrix in the course of their exposure to fire.

Both hearths and ovens occur predominantly in living rooms. I have found only 4 hearths in ante rooms, and 13 in indefinite rooms, and as many as 132 out of total of 149 hearths (89 %) were located in living rooms. Likewise 13 ovens were located in ante rooms, 13 in indefinite rooms, and 99 out of 125 ovens (79 %) were located in living rooms. Thus both features are clearly associated with the main rooms of the Çatalhöyük buildings.

The average oven is 0.73 m² in size and the average hearth is 0.42 m², but these sizes may be too low, because many of these features were incompletely preserved. The largest oven found in the new excavations, *Feature F.501*, measures over a square metre in size, and the largest hearth in the recent excavations, *Feature F.96*, measures some 0.56 m². However, both these features seem to be large in their class, and these features commonly seem to have been somewhat smaller.

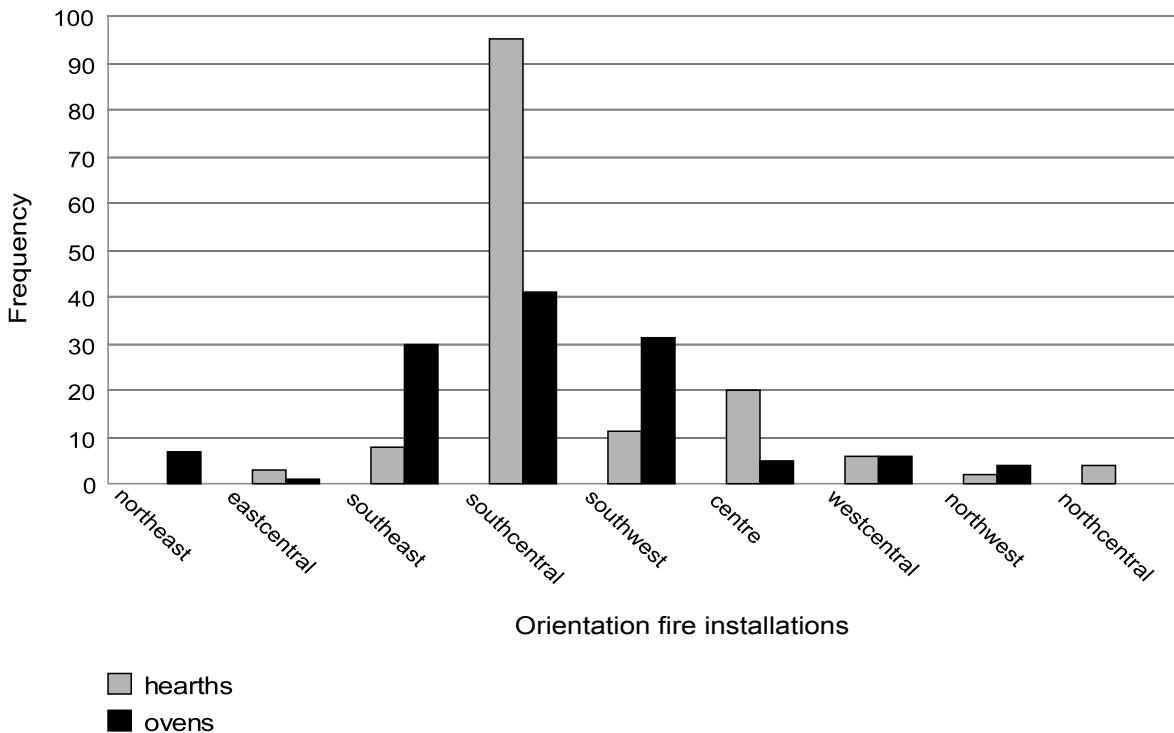


Figure 6.18: The orientations of hearths and ovens at Çatalhöyük (n hearths=149 , n ovens=125).

The orientation of hearths and ovens accords well with the idea that the ‘kitchen’ area of the Çatalhöyük living rooms was generally located in the southern part of the living rooms. Hearths and ovens rarely occur in other parts of the building, although hearths may occasionally be placed in the central part of the room. Ovens are more often located in the southeast and southwest corners, whereas hearths are more often placed in a southcentral location. This could be so for a variety of reasons. First, ovens tend to be located in corners and near walls because these vulnerable domed structures can gain additional strength from adjacent features in this manner, and are less in the way of access and locomotion routes in these locations. Hearths do not have a superstructure, and can be located more freely in this respect. Second, in those cases where we have good evidence, hearths seem to be located directly below the ladder entrances, which suggests that for hearths the draft of the ladder entrance was more important, perhaps because it was fired more often. Third, the central positioning of the hearths may be in part related to its function of heating the living room.

Apart from the normal ovens there is also a category of large ovens, which are often located in typical rooms or in exterior spaces. The earliest large oven is located in VIII.29 in a somewhat atypical living room (Mellaart 1966, fig. 7). Two large ovens were found in the western part of buildings VII.44 and its successor VI.44 (Mellaart 1964, figs. 1 and 2; Mellaart 1967, figs. 9 and 10), in a space separated off from the main room by a screen wall. In level V another pair of ovens was found in building V.7, reconstructed as an open space (Mellaart 1962, fig. 5). Finally, a pair of two large ovens was found IV.Z1 (Mellaart 1962, fig. 4, southernmost part of plan), in what might have been an exterior space.

6.4.7 STORAGE FEATURES

A range of storage features have been found at Çatalhöyük. Some of these were made from basketry, and most of these have left only faint traces, if at all (Cessford in prep-c). A range of better-preserved features are represented on Mellaart's plans, discussed in his reports, and have been investigated in the ÇRP. These include features such as bins, basins, silos, and niches. Basins are shallow features without upstanding edges. Bins do have upstanding edges, but lack a cover. Finally, silos can be sealed with a cover, and often have a removable shutter near the base that can be used to extract their contents. All of these features range from rectangular to ovoid forms, are usually built near walls, and are constructed from loam and plaster. The distinctions between some of these different types of features are often difficult to make out on the basis of the archaeological remains. Part of the problem is that features were often redeveloped or partially removed in later phases of occupation. Thus, for instance, a basin may be reused as the basis for an oven. For this reason, the storage features, apart from the niches, will be treated as a group here.

In total I have assembled data on 138 storage features, 51 of which have been excavated by the ÇRP. Of these features 46 were located in ante rooms (33%), and 73 in living rooms (53%), while the remaining 19 features were located in rooms that could not be classified. From these figures it appears that many of the storage activities took place within the living rooms as well as in the storage rooms. Only 10 % of these storage features are larger than a square metre, and the average size is 0.52 m². In many cases storage features occur in clusters of two to five features, and these clusters are located both in ante rooms and living rooms. Cessford (in prep-c) has calculated that building ÇRP.5 in phase B had a storage feature capacity of 0.115 m³ in the form of four bins, some of which, he suggests, on the basis of phytoliths, may have contained wheat and barley, while those without cereal phytoliths may have contained pulses.

Within the living rooms at Çatalhöyük most of the storage features are located in the southern part of the room (see fig. 6.19). However, quite a substantial number of bins and basins were located in west and north of these rooms, and only the north-east and east-central parts of the living rooms have few of these features. This pattern seems to suggest that storage was less spatially confined than cooking and food processing, as evidenced in the southerly location of hearths and ovens. Furthermore, the data reinforces the idea that it the east-central and north-east compartments of the living rooms that were the most 'clean' and prestigious in the living rooms, and that the northern part of the room was less highly valued in this respect (§6.4.5).

Another category of storage features at Çatalhöyük consists of plastered niches in the walls. At present no generalisation concerning the sizes of these features can be made, as they are generally not indicated in the Mellaart Archives. The niches excavated by the ÇRP range in diameter from 20 to 82 centimetres. The features differ from the other storage features in that they are generally unsuitable for the storage of seeds or liquids, and would probably have contained objects or larger food stuffs. Most of these niches seem to have been located in the living rooms (46/58 or 79%). Further, these niches were located in all walls, suggesting they might have been used for a variety of purposes associated with different parts of the living rooms.

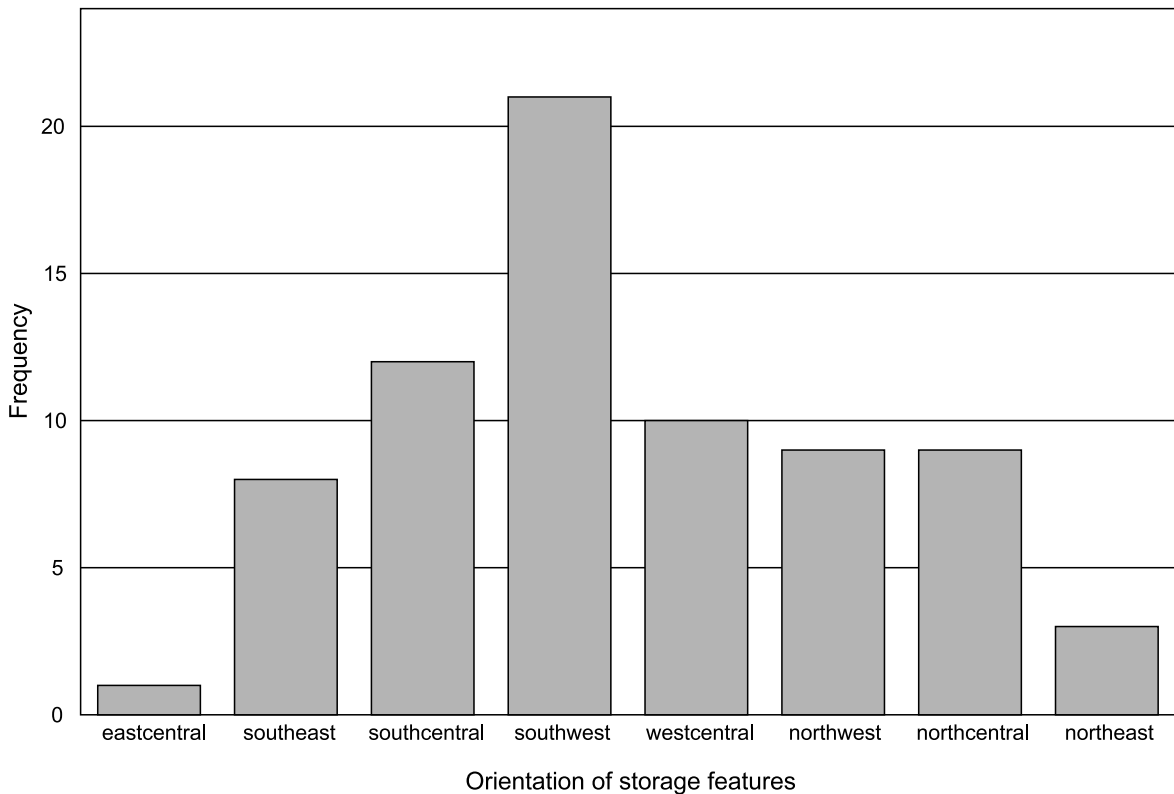


Figure 6.19: The orientation of the storage features in the living rooms at Çatalhöyük (n=73).

Finally, mention should be made here of a very particular type of storage features found at Çatalhöyük: the sub-floor caches. These consist of small pits cut through the floors often containing large amounts of obsidian, in the form of half-fabricates, such as bullet cores and prismatic blades, and also in some cases clay balls, bone elements and stones (Mellaart 1964, 103; Hodder 1998d, 134; Conolly 1999a, 79; Farid 2002). These caches probably represent a kind of storage of raw materials and half-fabricates stored for later processing and consumption. In most cases these caches were probably retrieved, and it could well be that many of the emptied ‘scoops’ at the site represent emptied caches, but in other cases we find caches containing large amounts of obsidian, and more incidentally other materials such as clay balls, bone elements and stones. The question why those caches were left rather than emptied will probably remain open, but these contexts provide an exciting window into the Neolithic economy.

For this study I have been able to locate only 21 caches, of which only five derive from the 1960s excavations (Mellaart 1964, 103). There is one ‘hoard’ on which details are provided from building VIII.8 consisting of 50 obsidian tools (Mellaart 1964, 107-11). The recent excavations have shown that the amount of caches in buildings varies somewhat from one building to the next. Building ÇRP.1, which is one of the few structures completely excavated by the ÇRP, contained two caches (units 1460 and 1387). Building ÇRP.2 contained three caches (units 4134, 4135, and 4138), while VIII.10 / ÇRP.6 contained five caches (units 2038, 4293, 4399, 4934, 4914). Given the limited database available to study the distribution and contents of caches, no conclusions can be drawn at present concerning issues of variability and orientation of these storage features.

6.4.8 POSTS AND BUTTRESSES

The interior posts and buttresses at Çatalhöyük form one of the most conspicuous elements of the buildings of the site. Many of the buildings contain paired posts or buttresses set along the long

walls of the buildings. Post retrieval-pits and post scars are amongst the most common features of the Çatalhöyük buildings, and in this section the focus will be on the function(s) of these features. Neither posts nor buttresses are a common element at the sites of Aşıklı Höyük and Canhasan III that have been dealt with in previous chapters. One possible explanation why these features might have been introduced at Çatalhöyük has already been presented in an earlier section (§6.3.1): the rooms at Çatalhöyük often have widths exceeding the 4.5 metres that is the ethnographically attested maximum span for flat loam roofs without additional supports. It seems plausible that posts and buttresses were introduced at Çatalhöyük to enable builders to roof larger distances.

The posts at Çatalhöyük were incorporated into the wall plaster and would have been visible as plastered buttresses during the occupation of the buildings. On most reconstructions these are drawn as rectangular, but is equally possible that they were semi-rounded.¹⁸⁰ After level VI the posts seem to be replaced by buttresses that were placed on the same location (Mellaart 1963, 60; 1967, 64).

Mellaart has suggested three conflicting explanations for the posts at Çatalhöyük. First of all, he has suggested that the posts are anachronistic features that belong to an older building tradition in wood associated with people coming from a mountainous region (1963, 60; 1967, 63-6). This explanation is hard to accept because it is based on the assumption that people at Çatalhöyük adhered to a building technology no longer relevant over a course of centuries.

Second, Mellaart has suggested that the beams supported a kind of inward corbelling of the walls that formed an unstable element in the buildings and often collapsed (1963, 60; 1967, 64). Again the basic assumption is that people at Çatalhöyük did not manage to master their building technology, a highly questionable assumption. Recently it has been suggested that the so-called 'corbelling' of the walls that Mellaart describes relates in fact to later rebuilding with slightly offset walls (Matthews and Farid 1996, 275-6).

A third explanation put forward by Mellaart for the posts is that they supported some type of upper storey. In his Çatalhöyük monograph (1967, 56) this hypothesis is considered with some caution, but in a later publication he simply states: "Each house had a partial upper storey built of wood and plaster" (1978, 17, see also the figure on page 13). More recently a similar suggestion has been made by Cutting (in prep), who argues that the posts served to support an upper storey, although she fails to indicate why this is so. The widths of the Çatalhöyük buildings provide a sufficient reason for the presence of buttresses and posts at the site, and it not necessary to relate them to an upper storey. In fact, it is difficult enough to understand how the Çatalhöyük buildings could have reached the size they did, without the additional burden of an upper storey, and I would argue that Cutting's arguments are mistaken (§6.9.3).

On the basis of the Mellaart archives it is not always possible to distinguish between buttresses and posts. Given that these features may have served similar purposes they are here presented together. Posts and buttresses were not found in every Çatalhöyük building. Out of the 406 rooms excavated in the 1960s at Çatalhöyük, 149 contained either posts or buttresses or both, amounting to about 36 %. However, we should allow for the fact that not all the buildings were completely preserved or excavated. Moreover one would expect posts and buttresses to have been present primarily in the larger rooms. Of the 121 rooms with widths over 3.5 metres excavated in the 1960s, 93 contained post or buttresses, amounting to 77 %. This would suggest that there is a relation between room sizes and the presence or absence of posts or buttresses. One could suggest a roof construction in which paired posts supported one or more primary beams, which served as a base for a series of shorter secondary beams, upon which the loam roof rested (*cf.* Cessford in prep-c).

Consider building VIB.44, which has an interior width of 4.70 metres. In this building there are four posts in juxtaposed positions in the middle of the room. If these had supported two strong

¹⁸⁰ Given that the floors are generally not preserved where posts once stood, due to disturbance by post retrieval-pits, this issue cannot be solved by analysing ground plans.

beams, those beams could have carried a second layer of roof beams that rested on the two central beams. This method would have the advantage that only two very long beams had to be obtained, whereas all the secondary beams would have been about 3.40 metres maximum, bringing them within the range of the normal roof spans observed ethnographically. Given that a lot of pressure would have been exerted on the two central beams, it would have made sense to support them with standing posts.

What is peculiar about the Çatalhöyük posts is that they often occur on one side of a building only. Thus it is common to find two posts along one half of the building, whereas the opposite wall often lacks these features (*cf.* Heinrich and Seidl 1969, 113). This can be clearly seen in figure 6.20. If the Çatalhöyük posts and buttresses occurred in pairs we would expect that posts and buttresses would be equally present in north / south and east / west, but instead posts are much most common in the north and east.

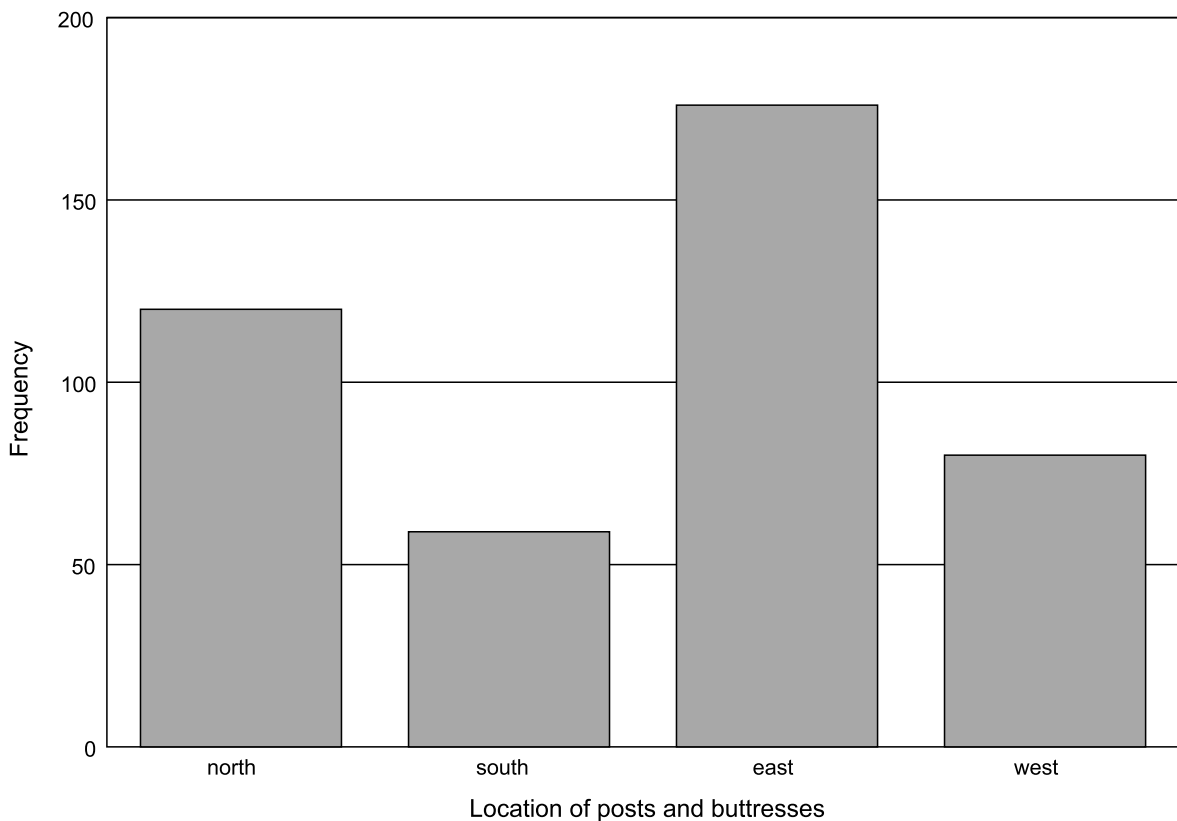


Figure 6.20: The orientation of the posts and buttresses at Çatalhöyük (n=439).

From figure 6.20 it would appear that in many instances the posts and buttresses at Çatalhöyük were not structural elements supporting the primary roof beams. However, it is also clear that posts and buttresses do not appear only in the north and east, and it seems that at least in some cases they may have served a structural purpose. In many of the buildings excavated by the ÇRP we do find paired posts,¹⁸¹ and good examples likewise exist in the Mellaart Archives.¹⁸² This

¹⁸¹ For instance in buildings ÇRP.1; ÇRP.2; ÇRP.3; ÇRP.5; VII.9 / ÇRP.50; and IX.10 / ÇRP.17.

¹⁸² For instance in buildings B.II.2; IV.1; F.V.1; F.V.7; V.75; VI.44; VI.1; VI.2; VI.61; VIA.25; VIA.27; VIA.66; VIB.34; VII.21; VII.22; VII.23; VIB/VII.24 (w); VII.31(e); VIII.1 / ÇRP.21; VIII.8 / ÇRP.7; VIII.10 / ÇRP.6; VIII.14; and VIII.27.

fact, taken together with the consideration that the Çatalhöyük buildings are too broad for roofing without extra support for the roof beams, suggest to me that many of the posts and buttresses at Çatalhöyük did serve a structural purpose, although this cannot be demonstrated statistically at present.

To explain the reason why more posts were found in the east and north of the Çatalhöyük buildings, two explanations could be given. First, it could be argued that in the 1960s excavations insufficient attention was given to the south and west walls, and that post scars and post-retrieval-pits on these walls went unrecognised. In this respect it is of interest to note that amongst the 72 posts in the database from the ÇRP excavations the orientations are much more evenly distributed.¹⁸³ Second, we should not exclude the possibility that in some buildings, posts may have been placed along the east and north wall for non-structural reasons, for instance because to do so was prestigious, or because posts could be used for attaching mouldings.

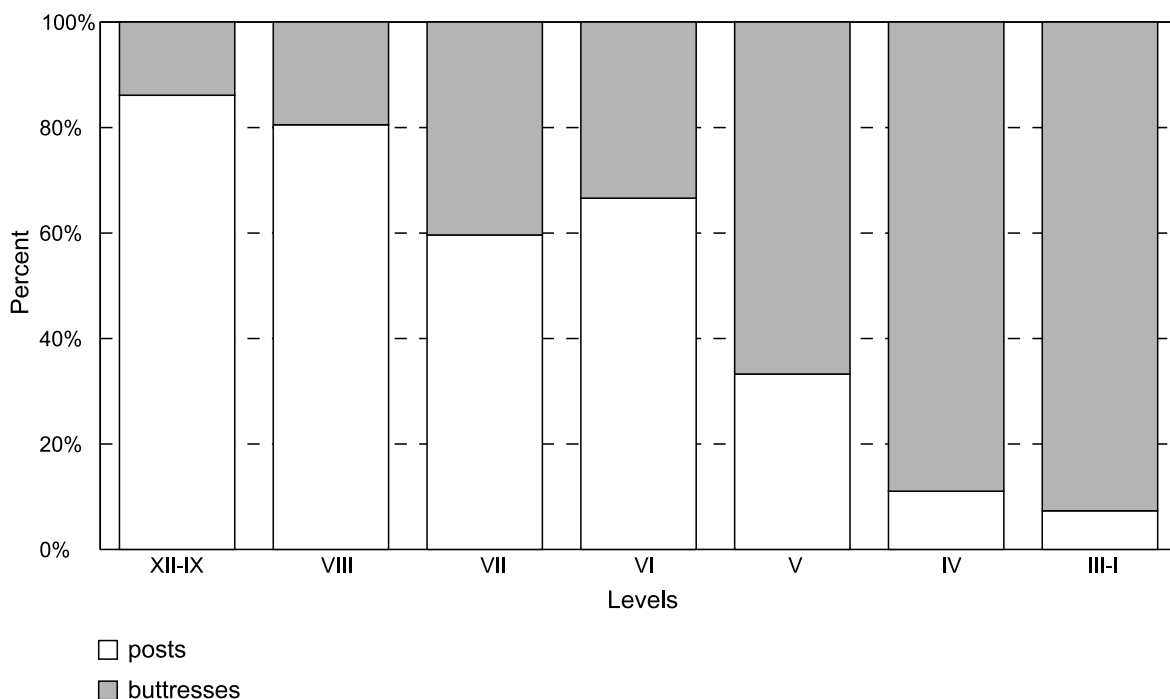


Figure 6.21: Relative percentages of posts and buttresses per building level in the South Area at Çatalhöyük.

In the upper levels V-I at Çatalhöyük, posts seem to be increasingly replaced by buttresses (Mellaart 1963, 60; 1967, 64), although the distinction between the two types of features is often difficult to make out on the basis of the Mellaart Archives. Nonetheless there is a clear pattern of a gradual increase of buttresses as opposed to posts (see fig. 6.21). Two arguments can be proposed to explain this shift. First, it has been argued that there was an increasing shortage of good building timber, related to a climatic deterioration in the Late Ceramic Neolithic (Matthews *et al.* 2004). Second, there is the possibility that the quality of the loam slabs was improved during levels V-I at Çatalhöyük, and perhaps loam bricks were introduced in this period (Matthews and Farid 1996; Tung in prep). If this is the case, the carrying capacity of buttresses would have been improved, and

¹⁸³ 21 post along the east wall; 15 along the west wall; 20 along the north wall; 15 along the south wall; and one in the centre of the room.

they would therefore have become a sound alternative for posts as a support for beams. This argument would tie in with emergence of loam bricks as the prime building material in the Early Chalcolithic and the ubiquity of buttresses in the Early Chalcolithic buildings (see chapter 8).

6.4.9 THE ÇATALHÖYÜK IMAGERY

To a large degree the fame of Çatalhöyük rests on the presence of three types of features within the buildings. These are: first, wall paintings; second, moulded features and installations; and, third, the sub-floor burials. Many of these features seem in contradiction with the (modern) notion of a house, and led Mellaart to interpret buildings containing elaborate mouldings and wall paintings as ‘shrines’ rather than houses. This problematic distinction will be further discussed later in this chapter (§6.5.4).

In the following sections the distribution of wall paintings and mouldings in the Çatalhöyük settlement will be discussed. In an earlier study (Düring 2001) I have suggested that some features at Çatalhöyük, such as mouldings and sub-floor burials, may have been concentrated in a limited number of high status buildings, whereas paintings may have been more evenly spread across the settlement. If this is true this may suggest that these features may relate to distinct sets of practices. In order to get at such different practices that come together in a building, and to study whether there is any basis for differentiating amongst mouldings and paintings, it is imperative to study the different types of features separately, rather than lumping them into some form of building complexity index (Mellaart 1967, 77-8; Ritchey 1996).

On the other hand, classifying the Çatalhöyük imagery can be highly problematic. For example, there are instances where moulded features were also painted, and thus even the basic distinction between wall paintings and mouldings is difficult to draw. Further, in recent articles it has been argued that the distinctions between moulded features with inset bone elements on the one hand, and structured deposits and faunal elements incorporated into walls and floors on the other, is often difficult to draw (Last in prep-b; Russell and Meece in prep). In accordance with the ambiguous nature of the Çatalhöyük imagery, the classification in the sections below should be understood merely as a heuristic tool for ordering the data.

More than any other category of data from Çatalhöyük its imagery, or ‘art’ as it is more often called, has been the subject of many interpretative essays focusing on Neolithic symbolism and religion. In these studies motifs and scenes from Çatalhöyük were interpreted as being related to Aegean and Near Eastern mythology from the Bronze and Iron Ages (Mellaart 1963; 1964; Dietrich 1967; Mellaart 1967; Urbin-Choffray 1987; Cauvin 1997); as an example of the religion of the ‘Mother Goddess’ (Gimbutas 1991; Meskell 1998; Rountree 2001; Wunn 2001); as imitations of slit-tapestry weavings similar to ‘kilims’ (Mellaart 1963, 48-9; 1984; Mellaart *et al.* 1989); as depictions of hunting scenes or death rituals (Mellaart 1964, 64; 1966, 184-91; Clamagirand 2004); as representing the symbolic structures of the Neolithic (Hodder 1990; Cauvin 1997; Watkins 2004); in a structuralist vein, representing a series of linked oppositions centring on male/female and nature/culture dichotomies (De Jesus 1985; Hodder 1987; 1990; Forest 1993); and as an example of shamanistic practices (Lewis-Williams 2004).

All of these studies, except where specific motifs are treated in isolation, are based on two problematic assumptions concerning the Çatalhöyük imagery. First, the Çatalhöyük imagery is held to constitute a unified, interconnected and coherent corpus. Second, the images are often seen as a direct and relatively straightforward reflection of the symbolism and religion of people at Çatalhöyük. In such a view the images represent a coherent code that needs to be cracked by the annalist. The manner in which this was most often done was by comparison to later religions and symbolism in the Eastern Mediterranean (direct historical approach, §3.1.1) or by a structuralist analysis in which the aim is to identify a series of linked oppositions in the various images of the site.

It not difficult to expose both assumptions as being erroneous. Even a preliminary acquaintance with the material suffices to see that the images are extremely diverse and do not

interrelate. The idea that these images are a type of coherent text is questioned (§2.1.1; Last 1998a, 359). Furthermore, the comparison to later religions in the Mediterranean is problematic, because there is a temporal gap between about 6200 and 2000 Cal. BC in which the supposedly continuous motifs at Çatalhöyük and those to which they are being compared do not surface. Finally, the manner in which structuralists have arrived at their series of linked oppositions in their analysis of the Çatalhöyük imagery, by ignoring certain configurations and relations and stressing others, has already been discussed (§2.4.8).

A more promising approach to the imagery of Çatalhöyük was proposed by Last (1998a) who argues that these images should not be treated as a modern work of art, as a feature that can be viewed and understood in its own right, but that these images should be understood in the context of the practices and spaces in which they were embedded. Last argues that the significance of these images is related to their processual context, that is, the ways in which they were produced and consumed, rather than in some abstract code. For instance, many paintings were covered with plaster not long after they had been applied, and became embedded in the walls in this manner. It could be argued on this basis that the paintings were probably not primarily meant as objects in themselves, but might have been applied in relation to particular occasion, such as festivals or rites of passage (*cf.* Boivin 2000). Both Last (1998a, 371) and Hodder (1998b) have argued that wall paintings at Çatalhöyük may have been related to burial episodes.

While the approach taken by Last is promising, he has not done much of the kind of contextualisation of the Çatalhöyük imagery that he advocates, and in consequence his arguments do not amount to much more than a critique of the dominant interpretation of that imagery. Much work remains to be done in order to test the potential of Last's ideas. The following sections are only a first step in that direction.

6.4.10 WALL PAINTINGS

In total 187 wall paintings have been assembled in the Çatalhöyük database (from both the 1960s excavations and the ÇRP), of which 164 were found in the 1960s excavations at the site.¹⁸⁴ This may seem a large number of paintings, but these paintings derive from 437 rooms, and include monochrome painted panels and many fragments that cannot be adequately understood. Further, in cases where the data was not particularly clear, fragments of painting found in different parts of the room were included in the database as discrete paintings, and the true number of paintings that were discovered may have been lower than appears from the database.

More importantly, paintings were, as a rule, only visible for a short period of time before they disappeared beneath a subsequent plastering. Thus, paintings would have been visible only occasionally at Çatalhöyük, given that many rooms would have had some 60 annual plaster layers and many additional washes applied in between (§6.2.5). While it is plausible that many paintings were overlooked both in the 1960s and in the current excavations¹⁸⁵ (it physically not possible to peel off these plaster layers discretely using the excavation methods at our disposal today), it is clear that: “the idea of Çatal Hüyük presenting a picture gallery at any chosen time is clearly erroneous. Blank walls were the rule.” (Mellaart 2000, 38).

The 187 wall paintings found at Çatalhöyük can be subdivided into the following groups. Probably the most common are wall panels, floor compartments, or other building elements painted in a single monochrome colour, of which 59 were found. 21 paintings were of an indeterminate nature, generally these were too badly preserved or too small to make sense of.

¹⁸⁴ The 44 new wall paintings presented by Mellaart in ‘The Goddess from Anatolia’ (Mellaart *et al.* 1989) are not included in this analysis, because they have been conclusively exposed as frauds (Collon 1990; Eiland 1993). Recent frauds of figurative wall paintings (Mellaart 1993; 1999) and clay plaques (Mellaart 1990) can be dismissed on similar grounds.

¹⁸⁵ Although it cannot be doubted that relative to the amount of buildings excavated, the ÇRP is finding more paintings per building due to the slower and more careful manner of excavation practiced.

The remaining 107 wall paintings in the database are predominantly geometric motifs (84 paintings or 78 %). These include geometric paintings of various kinds, such as rows of stylised hands, crosses and squares, honeycomb motifs, and the so-called ‘kilim’ motifs, consisting of triangular patterns superficially resembling tapestries in which complete wall panels were painted in a coherent geometric design.¹⁸⁶ In the following I will discuss the distribution of the motifs in the South Area.

Rows of stylised hands and honeycomb motifs, which often co-occur, were found in buildings VII.14, VII.8 and its successor building VI.8, VIB.15, and VI.10.¹⁸⁷ ‘Kilim’ type paintings were found in buildings VIII.14, VIII.25, VIII.27, VII.8; VII.21, VII.1 and its successor VI.1; VIB.65, and VIA.50.¹⁸⁸

Finally, 24 figurative scenes were found (22 % of the identifiable non-monochrome paintings). The figurative paintings have received an enormous amount of attention but constitute only a small corpus of scenes. Amongst these are two clearly defined motifs recurring in a number of buildings that are often designated as ‘vulture scenes’ and ‘hunting scenes’ respectively. The ‘vulture scenes’ depict large vulture-like birds pecking at headless humanoids that are represented on a much smaller scale. This motif occurs in building VIII.8, its successor VII.8, and in building VII.21.¹⁸⁹ The ‘hunting scenes’ show a multitude of humans wearing leopard skins teasing wild animals represented on a much larger scale, such as bulls, stags and wild boar. This motif was encountered in buildings F.V.1, IV.1, and A.III.1.¹⁹⁰

Apart from these two distinct groups of paintings a variety of figurative motifs has been reported, including the so-called city plan in building VII.14 (Mellaart 1964, 55, pls. 5-b and 6-a), an animal in silhouette on the north wall of IX.8 / ÇRP.16 (Mellaart 1964, 70, pl. 14-b, fig. 24), an abstract animal head in VIA.66 (Mellaart 1963, 54, pl. 8-b), birds in VIB.34 (Mellaart 1967, table 13), various human figures in buildings VIA.27 (Mellaart 1967, table 13, 150) and IV.1 (Mellaart 1962, 59-60, pls. 12 and 13), stylised humans in VIA.66 (Mellaart 1963, 54, pl. 8-b), goats in building VII.44 (Mellaart 1966, 176-7, pls. 35 and 36), scenes with humans and animals in A.III.1 (Mellaart 1963, 49, pl. 5-a) and IV.A.1 (Mellaart 1963, 50, pl. 5-b), and finally a possible ‘splayed figure’ (see §6.4.11; Mellaart 1964, 42, fig. 4).

What is remarkable in the distribution of these wall paintings motifs across the settlement is that they seem to be clustered in time and space (*cf.* Russell and Meece in prep). First, it is clear from table 6.2 that some motifs were only present in levels VIII – VI, whereas the ‘hunting scenes’ were only found in the upper levels of the site.

¹⁸⁶ Mellaart has argued that these paintings actually represent ‘kilims’, slit-tapestry weaves, and were a cheap alternative for the real thing, which he suggested was commonly produced and used at the site, and hung on pegs along the walls (Mellaart 1962, 59; 1963, 48; 1964, 57; 1966, 166; 1967, 152-5; 1984). This interpretation linked recent practices in Anatolia to those of the distant past and suggested a considerable antiquity for the tradition of producing kilims (Mellaart 1984). This interpretation raised a lot of interest amongst kilim dealers (Eiland 1993) but does not seem to be borne out by the evidence. The oldest evidence for slit-tapestry from Anatolia stems from the first millennium BC, from a Phrygian tomb that can be dated to ca. 735 BC (Maréchal 1985, 11), and the technology required for weaving kilims cannot have been in place before the Bronze Age. Moreover, the paintings interpreted by Mellaart as kilims often fail to make sense, because they cannot be produced without a kilim technology (Eiland 1993, 861).

¹⁸⁷ (Mellaart 1963, 69-70, 80, pls. 11-b, 12-a/c, and 18-b, fig. 12; 1964, 61, pls. 6-b/c, fig. 18; 1967, pls. 41 - 43 and 45, table 13).

¹⁸⁸ (Mellaart 1962, 59, pls. 10-b and 11, fig. 10; 1963, pl. 8-a; 1964, 47, 57, 61, 64, pls. 1-b, and 11-b, figs. 4, 15, and 21; 1966, 178-80, pls. 42-4; 1967, 154, 174, pls. 5, 30, 33-b, 34-a, and 36-8).

¹⁸⁹ (Mellaart 1964, 64, 70, pls. 7-b, 8, 9, 12, and 14-a, figs. 20-2; 1967, pl. 46, 48, and 49).

¹⁹⁰ (Mellaart 1962, 59-60, 62-4, pls. 12-a, 14-8; 1963, 49-50; 1966, 184-90, pls. 51-63, fig. 10; 1967, 151, 170-76, pls. 54, 55, 58, 61, and 64, colour plates xi and xiii).

motifs	VIII	VII	VI	V	IV	III
Vulture	X	X				
‘Kilim’	X	X	X			
Hands and honeycombs		X	X			
‘Hunt’				X	X	X

Table 6.2: Occurrence of wall painting motifs in relation to the levels at Çatalhöyük.

Second, some of the motifs seem to be spatially clustered as well. For instance, the rows of stylised hands and honeycomb motifs all occur within a few neighbouring buildings in the South Area. The ‘kilim’ type of motif is more widespread, occurring in ‘outlying buildings’ also, such as VIB.65 and VIA.50. Finally the ‘hunting scenes’ do not show any spatial clustering, but occur in different parts of the mound.

Third, I want to point to a more-than-random pattern in which painted motifs recur in buildings-in-sequence. For instance, both building VII.8 and VI.8 contain stylised hands arranged in horizontal rows, both buildings VII.1 and VI.1 contain ‘kilim’ motifs, and both VIII.8 and VII.8 contain vulture scenes. It can be argued on this basis that some motifs might have been associated with particular building (§6.6.1).

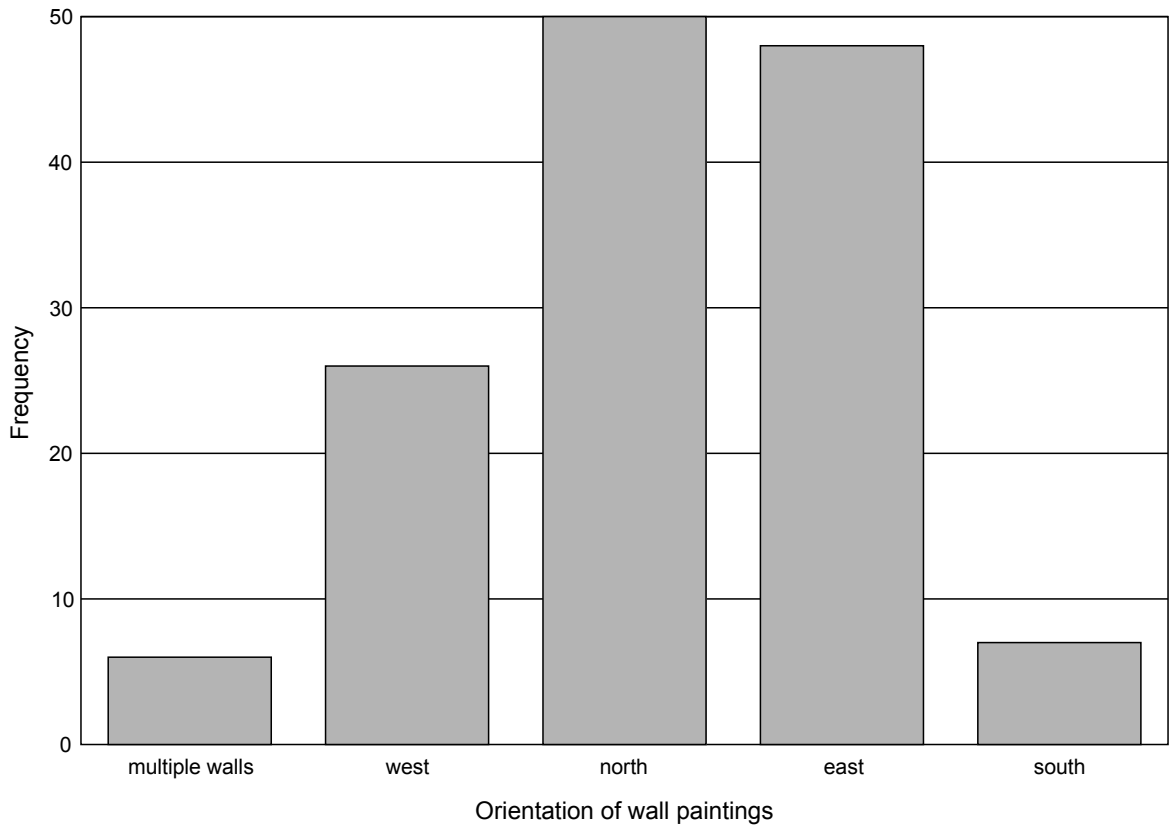


Figure 6.22: The orientation of wall paintings at Çatalhöyük (n=137).

The paintings generally seem to be clustered in the living rooms. Out of the 187 paintings 166 (or 89 %) were located in the living rooms, 7 in the ante rooms, and 14 in spaces whose nature could not be established. Further, the wall paintings are predominantly located along the north and

east wall, and in many cases occur on both the eastern stretch of the north wall and the northern stretch of the east wall (fig. 6.22 is a simplification in that paintings were assigned to either the north or east walls).

Given that both Last and Hodder have argued (§6.4.9) that wall paintings might have been associated with burial practices the co-occurrence of these two types of features was investigated. Of the 187 paintings in the database only 95 (or 51 %) were located in a building with sub-floor burials. To mention an example, building ÇRP.2 had two wall paintings on its walls, but no burials beneath its floors. Thus the correlation between the two types of features is not very convincing. It remains possible that some paintings were applied as part of a burial ceremony, but it is likely that they could be used to mark other occasions and events as well.

Likewise the occurrence of wall paintings does not seem to be correlated with the presence of moulded features in buildings. Only 48 wall paintings were located in a building with moulded features, which is only 26 % of the total.

I have earlier suggested (Düring 2001) that wall paintings were spread more or less evenly over the settlement at Çatalhöyük, and were not associated specifically with high status buildings. In total 92 living rooms at Çatalhöyük contain wall paintings, from a total of only 137 living rooms (67 %). The ÇRP excavations at the site have demonstrated that wall paintings are even more common than is apparent on the basis of the 1960s excavations. It seems plausible that wall paintings are more or less ubiquitous at the site, in other words, that they are part of the normal set of practices that occur within the domestic context of every building at the site. As such, the wall paintings can be contrasted to the moulded features and installations to which we now turn our attention, and the sub-floor burials that will be discussed later.

6.4.11 MOULDED FEATURES, INSTALLATIONS AND INCORPORATIONS

This section deals with a class of features in which plaster and faunal elements, and in some cases paint, were used to create vivid three-dimensional sculptures and installations. The most famous examples of these kinds of features are moulded¹⁹¹ animal figures represented in profile, plastered animal heads with inset horns, and benches and pillars with inset horns. In many of these features faunal elements play an important role, but in some cases these elements were hidden rather than displayed. In that sense there is a continuum with faunal elements that are incorporated in the fabric of walls, compartments or other features that are part of the Çatalhöyük buildings, and these ‘incorporations’ will also be discussed here.

When dealing with this type of feature a word of caution is necessary. Many of the moulded features that Mellaart published have been documented with photographs (either in his reports or in the slides taken by Ian Todd that circulate amongst the team members of the Çatalhöyük Research Project). However, in other cases Mellaart reconstructed moulded features and installations on the basis of scars on the walls that could have held such features, or a rippling in the wall plaster. In some cases the reconstructions proposed by Mellaart seem to have little factual basis, and can be described as highly imaginative. I will briefly discuss some of the more obvious examples of such ambiguous reconstructions.

First of all, there are the so-called ‘cut-out reliefs’ reported for a number of buildings, supposedly consisting of figures cut through the wall plaster in the form of an animal.¹⁹² Mellaart reports a variety of these features, but the only ones that are convincing are two examples of animals in profile on the north walls of buildings VII.8 and VI.8, that will be discussed below. All

¹⁹¹ The term ‘mouldings’ has become a common denominator for these features that are created out of loam and clay by a process of application. Thus these features are not shapes in a mould and the term is a confusing one. However, for want of a better word it will be used in this study.

¹⁹² (Mellaart 1963, 67, 75, pl. 9-b, figs. 9-12, 17; 1964, 55, 57, 61, 70, pls. 7-a, 9-a, 10-a, 14-b, figs. 13, 14, 17, 18, and 24; 1967, pls. 11, 12, 14, 17, and 41, fig. 27, tables 13 and 16).

of the other features in this class are of the 'Rohrschacht' type, any person will be able to find some figure in them, but these tell us more about the person observing than about the feature itself.

Second, there are some examples where Mellaart seems to have interpreted wavy lines in the wall plaster as stylised horns attached to moulded animal heads (for which no evidence was found). Particularly clear examples are buildings VII.9, in which eight animal head were reconstructed on the east and west walls on the basis of the rippling in the wall plaster (Mellaart 1964, 52, figs. 12 and 13, pl. 5-a), VII.10, with a supposed cattle head in profile (Mellaart 1964, 57, fig. 17), building VII.31 (east), that was reconstructed with as many as seven animal heads on this basis (Mellaart 1964, 45-7, fig 7, pl. 4-b), building VII.35, in which four heads of this type were reconstructed (Mellaart 1964, 66, fig. 23), and building X.1 / ÇRP.23, in which 8 clay animal heads were reconstructed (Mellaart 1964, 70-3, fig. 25). Recent investigations have demonstrated that the kind of rippling in the wall plaster that is at the basis of these reconstructed animal heads occurs frequently at the site and need not be connected to any form of moulded animal head (Cessford in prep-c; Last in prep-b; Russell and Meece in prep).

Apart from these two classes of features in relief, that seem to be problematic as a whole, there are others types of moulded features for which convincing documentation exists, for instance cattle heads with inset horns, but for which the factual basis and evidence for many reconstructed examples is not available. For example, animal heads may be reconstructed on the basis of a vague scar in the wall plaster that could be interpreted in other ways. Given these difficulties with the data I have chosen to focus on those examples where the reconstructions suggested by Mellaart can be substantiated with convincing evidence.

On the basis of the Mellaart Archives and information from the ÇRP, data for 149 moulded features and installations attached to the walls was assembled. Of these moulded features and installations 45 are documented in photographs or slides and can be identified with certainty. An additional group of nine features can be identified on photographs, but are ambiguous or were found in fragmented condition in the ÇRP excavations. Finally, for the remaining 95 features we do not have any documentation, apart from the reconstruction drawings and references in text of the preliminary reports and the 1967 volume.

To these features applied to the walls we can add installations that consist of architectural features with inset horns, and 'incorporations', consisting of special bones intentionally incorporated into the fabric of the built environment. Approximately 37 installations are known from both excavation projects, of which ten can be substantiated by reliable evidence. The incorporations have been published mostly by the ÇRP, and are difficult to quantify at present.

The moulded features at Çatalhöyük can be divided into a variety of categories. These are: first, leopards in high relief; second, animals in profile in sunken relief; third 'splayed figures'; fourth, moulded animal heads, fifth, embedded horns and installations, sixth, round plastered protrusions containing faunal elements, and seventh, incorporated bones. These features will be discussed in the following paragraphs.

A first group of moulded features consists of animals depicted with their body in profile and their heads twisted towards the room. The moulded animals in this class are all leopards, which occur in juxtaposed pairs in buildings VIII.27, VII.44, which had a third, single leopard, on its east wall, its successor VI.44, and, finally VI.80.¹⁹³ These leopards often had many layers of plaster and their spots were regularly repainted. Thus, these figures were probably present throughout a considerable period of time and were periodically refashioned.

There is also another group of animals with their bodies represented in profile, but these were produced in a different manner. These are two large animals on the north walls of building VII.8 and its successor VI.8 that are facing west and are in deep relief to the surrounding wall plaster.¹⁹⁴ It not entirely clear whether these animals were carved through older plaster layers, or

¹⁹³ (Mellaart 1964, 42, pl. 2, fig. 5; 1966, 176-7, 180, pls. 37-40; 1967, pls. 18-21).

¹⁹⁴ (Mellaart 1963, 67, pl. 9-b, figs. 9-12, 1964, 57, pl. 7-a, fig. 18; 1967, pls. 12 and 14).

whether they were simply treated differentially during plastering episodes. The animal depicted in VI.8 is described as having been frequently replastered, and was painted red at one point during its existence. The one in VII.8 was painted black. Both of these animals are reminiscent of a painted black animal also depicted in profile on the north wall of one of their predecessor buildings IX.8 / ÇRP.16 (Mellaart 1967, pls. 11-4).

Amongst the most famous of the Çatalhöyük moulded features are what I will label 'splayed figures' (following Russell and Meece in prep), but that are commonly referred to amongst people studying Çatalhöyük as 'the Goddess motif'.¹⁹⁵ These are figures that are depicted with 'arms and legs' extending horizontally from the body and bending up 90 degrees for the lower limbs. The 'heads', 'hands' and 'feet' of these figures are invariably mutilated, which makes it difficult to identify what type of figure we are dealing with. In one instance it seems that the head had rounded ears on top, which would suggest that we are dealing with a figure with animal qualities (Mellaart 1964, pl. 4-b). Another element that seems to be marked in all these figures is a navel-like circular feature at the level of the stomach. In no instance are female organs, such as breasts, and vulva, which are emphasised in the Çatalhöyük figurines, indicated on these splayed figures. Thus there seem to be little in the iconography of the splayed figures that suggests that these were human figures (or more specifically females). A find of figurine in the stance of a splayed figure made during the 2005 campaign throws a new light on the nature of this motif (see www.catalhoyuk.com). This figurine clearly depicts a bear, complete with the prominent navel and the pointed ears that are typical for the moulded splayed figures.¹⁹⁶ On this basis it is plausible that the splayed figurines in fact represent bears rather than women. In some cases the splayed figures were also painted, and this may occur more than once with intervening plastering (Mellaart 1964, 66), but this does not always seem to be the case.

In total eight splayed figures have been documented in buildings VII.23, VII.31 (that contained three splayed figures), VII.45, VIB.12 (that contained two splayed figures), and VI.8. Additional splayed figures have been reported from buildings VII.1, VI.10 and VI.7.¹⁹⁷ The splayed figure from building VI.10 has become particularly famous, as it was reconstructed as having been placed above a series of two superimposed clay animal heads with inset horns (Mellaart 1963, pl. 13), and is exhibited in this manner in the Turkish Museum of Anatolian Civilizations in Ankara. To accommodate this vertical arrangement of moulded features with a height of over 3 metres, Mellaart reconstructed an exceptional roof with a central clerestory for this building, which is without parallels at the site. I should point out that no evidence for the existence of such a roof exists, and that it is plausible that if the splayed figure found in this building was genuine, then it most likely belongs to the later successor building V.3 rather than VI.10.

A fourth category of moulded features attached to walls at Çatalhöyük consists of plastered animal heads, with or without inset horns. These features may occur singly or in horizontal or vertical configurations. In some cases these animal heads were frequently replastered and painted with geometric motifs (Mellaart 1963, fig. 13). This indicates that these features, like the leopards discussed earlier, were probably present during a considerable period of time and were periodically refashioned. In some cases horns were inserted into these moulded heads, and in cases in which these horns can be identified these seem to be aurochs horns (Russell and Meece in prep). Mellaart

¹⁹⁵ It has recently become popular to compare the splayed figures with similar animal figure types from Göbekli Tepe (Beile-Bohn *et al.* 1998, 70; Schmidt 1998, 29; Voigt 2000, 289-90). However, this comparison is problematic. The two sites are separated by a geographical distance of some 500 kilometres, are some 2000 years apart in chronology, and are part of completely different cultural horizons, with distinct iconographical traditions (§1.3.1).

¹⁹⁶ The upper legs of this figurine are missing, and this is reminiscent of the deliberate mutilation occurring in the moulded splayed figures.

¹⁹⁷ (Mellaart 1962, pl. 3-b, fig. 8; 1963, 61, pl. 9-a, fig. 8; 1964, 66, pls. 3-c, 4-a, and 4-b, figs. 7, 8, and 11; 1967, pls. 25 and 26, fig. 27, tables 13 and 16).

also reports the usage of sheep and goat horns, but these determinations remain to be confirmed. Nonetheless it is clear that a distinction can be drawn between a group of larger plastered heads, which probably represent cattle, and smaller heads that may or may not represent other animals. In one interesting example a clay cattle head is surmounted by a miniature example of a similar head on its forehead (Mellaart 1963, pl. 17-b).

No less than 81 moulded animal heads, with or without horns, attached to the walls and posts have been reported for Çatalhöyük. However, many of these were reconstructed on the basis of wavy lines or ambiguous scars in the wall plaster. Positive evidence for moulded animal heads is restricted to only thirteen cases, and five others are reasonably plausible reconstructions. The certified animal heads were located in buildings VI.7 (two heads), VI.10 (four heads), VI.14 (three heads), VI.31 (two heads) and VIA.6 (one head). Additional plausible animal head were located in buildings X.1 / ÇRP.23, VII.31 (east) and VI.8 (three heads).¹⁹⁸ A new animal head and a bench with inset horns were found in the 2005 season at Çatalhöyük (see www.catalhoyuk.com), but will not be discussed here.

A fifth category of moulded features applied to the walls at Çatalhöyük are plastered protrusions that often contain faunal elements. These have often been described as ‘breasts’ (see Mellaart 1967, pl. 27; Hodder 1987; 1990, 5), but here I will use the more neutral ‘clay protrusions’ because I have not been convinced by the breast interpretation. It can be argued that the ‘breasts’ are simply the result of an act of covering up of the animal parts they enclose, as part of the abandonment of a building (Russell and Meece in prep), and in Mellaart’s reports these faunal parts are indeed reconstructed as having been visible during at least part of their use-life (Mellaart 1963, 69, fig. 10). The plaster protrusions occur singly, in pairs, or in more complicated horizontal or vertical configurations. Faunal elements that they contain include boar mandibles and tusks, skulls of griffon vultures, a fox and weasel (or badger) skull, (Mellaart 1963, 67-70; 1967, 106; Russell and Meece in prep). In the 1960s archives I have found mention of a total of 30 clay protrusions, of which positive evidence exists for 15 cases, and an additional two protrusions can be made plausible. These features occur in only two buildings, VI.8 and VI.10.¹⁹⁹ Additional clay protrusions that cannot be verified on the basis of the Mellaart Archives were reported for buildings VII.1, VII.21, VII.35 and VI.1.

Sixth, both in the old and the new excavations at Çatalhöyük a number of horns embedded in the walls and other features were found, to which I will refer as ‘installations’, and perhaps the faunal elements in the clay protrusion also belong in this category. These include: first, two horns embedded in the walls found in the North Area (*Features F.216* and *F.381* of building ÇRP.1); second, a horn set into an oven (*unit 2701* in building VII.19 / ÇRP-space 109); third, horns set into benches (in buildings VIB.70, VI.61, ÇRP.1, and possibly in *Feature F.1310* of building 44, that can be assigned to level V or VI);²⁰⁰ fourth, pairs of horns set into loam pillars standing on the edge of a compartment (in total 30 horn pillars have been reconstructed or hypothesised, but only those in VIB.70 (one horn pillar), VI.10 (one), and VI.61 (four) can be substantiated on the basis of the Mellaart Archives (and I have excluded rectangular scars on compartment ledges)).²⁰¹

Finally, I should mention what I call ‘incorporations’, these are highly particular faunal elements that are intentionally placed in the fabric of walls, floors and features. Whereas the faunal elements included in moulded animal heads and installations were put on display, those in the

¹⁹⁸ (Mellaart 1963, 61, 70, 73, 75, pls. 9-a, 10-a, 13-a, 13-b, 14-a, 15-a, 15-b, and 17-b, figs. 8, 14, 15, 16, 18; 1964, pls. 4-b and 5-c, figs. 6, 7, and 25; 1967 pls. 9, 22, 26, 28; Farid in prep).

¹⁹⁹ (Mellaart 1963, 67-70, pls. 10, 14-a, figs. 9, 10; 1964, 70, fig. 15, pl. 14-a; 1967, pl. 28.)

²⁰⁰ Additionally benches with inset horns were reported for buildings VI.14, VIA.50, and VIA.66 (Mellaart 1963, 75, fig. 17; 1964, figs. 1 and 4; 1967, table 13.), but these cannot be verified on the basis of the existing documentation.

²⁰¹ (Mellaart 1963, 50, 52, pls. 6-a and 13-a, fig. 5; 1964, fig. 1; 1966, 174, pl. 34-a; 1967, pl. 9, figs. 9, 10, and 40; Jónsson 2004; Regan 2005; Cessford in prep-c; Farid in prep).

incorporation were included in the fabric, and their potency was probably related to the fact that they were hidden. Incorporations require careful excavations to be recognised and are predominantly known from the ÇRP excavations. Bones placed in walls and floors are scapulae, feet bones, and rare bones such as a wolf ulna or a bear's claw (Russell *et al.* 2003; Russell and Martin 2005, 80; Russell and Meece in prep). In general there seems to be a concern with teeth, jaws and claws that derived from 'dangerous' animals such as cattle, boar, bear and wolf. In some cases these animal parts protruded from the walls or features, but in other cases they were incorporated without being visible. Given that these incorporations await publication and that only a few instances have been documented so far, I will not discuss their distribution here. However, the distinction between these incorporations and the clay protrusions with faunal elements on the one hand, and horns embedded in walls or features on the other, is a rather arbitrary one, and they are part of a continuum of faunal elements incorporated into the built environment (Last in prep-b).

Motifs and Installations	X	IX	VIII	VII	VI	V	IV	III
animal heads	X			X	X			
leopards			X	X	X			
deep relief animals				X	X			
splayed figures				X	X			
clay protrusions				X	X			
horn-pillars					X			
horn-benches					X	X		

Table 6.3: Occurrence of the classes of moulded features and installations in relation to the levels in the South Area at Çatalhöyük.

If we tabulate the occurrence of the categories of moulded features and installations over the stratigraphical levels at Çatalhöyük, several issues become clear. First, none of these features can be dated to the Late Ceramic Neolithic levels V-I at the site, with the possible exception of a horn-bench in ÇRP.44 (if that building is dated to level V). As I have already discussed in relation to the wall paintings, the later levels at Çatalhöyük have different types of imagery. This is also apparent in the figurine assemblage (Hamilton 1996, 225-6; Voigt 2000, 278; Düring 2002).

Second, apart from a moulded animal head in building X.1 / ÇRP.23 and a pair of leopards in building VIII.27, the moulded features and installations cluster in levels VII and VI.²⁰² This circumstance suggests that, like the wall painting motifs, these features were episodic, and were associated with changing fashions and ways of seeing the world. This is the reverse of the unchanging structuralist symbolic systems that many have reconstructed on the basis of the Çatalhöyük imagery.

Third, in some instances we see a recurrence of similar moulded figures in a building and its successor. For instance leopards were found both in VII.44 and in VI.44, and an animal figure in profile in deep relief was found on the north wall of buildings VII.8 and VI.8, echoing an earlier painted animal in profile in IX.8.

Fourth, most of the moulded features and installations seem to be dispersed across the South Area neighbourhood rather than clustered in any specific part of the excavated exposure. The only possible exception to this are the animal heads, which occur in buildings VI.7, VI.10, VI.14, VI.31,

²⁰² This could partially be the result of the small size of the level X-VIII exposures, however.

and VIA.6 (and plausibly in X.1 / CRP-23, VII.31, and VI.8), all of which are located in each other's vicinity.²⁰³

Unlike the wall paintings that were visible only for a short while before they disappeared beneath later plaster layers, many of the moulded features seem to have been present in the rooms at Çatalhöyük for an extended period of time, as evidenced by multiple plaster and painting episodes on the leopards, the animals in profile in deep relief, the splayed figures, and the plastered animal heads. At present, similar evidence for reconstitution is lacking for the installations at the site, and it is not certain whether these features were also in use during multiple phases or might have had a shorter use-life. In building ÇRP.44 a bench was found with two circular holes (*Feature F.1310*) that might have contained horns at some point, but which were carefully filled and replastered later on during the existence of the bench. If this interpretation holds true, this could suggest that at least in this case the horned bench was a temporal feature that was later reconverted into a 'normal' bench (Jónsson 2004; Regan 2005).

Of the 186 moulded features and installations on which I have gathered information in my database (and here all cases are included, also those that cannot be verified), the large majority are located in living rooms, which contain a total of 170 features (or 91 %), with 2 features in ante rooms and 14 in rooms of indeterminate status.

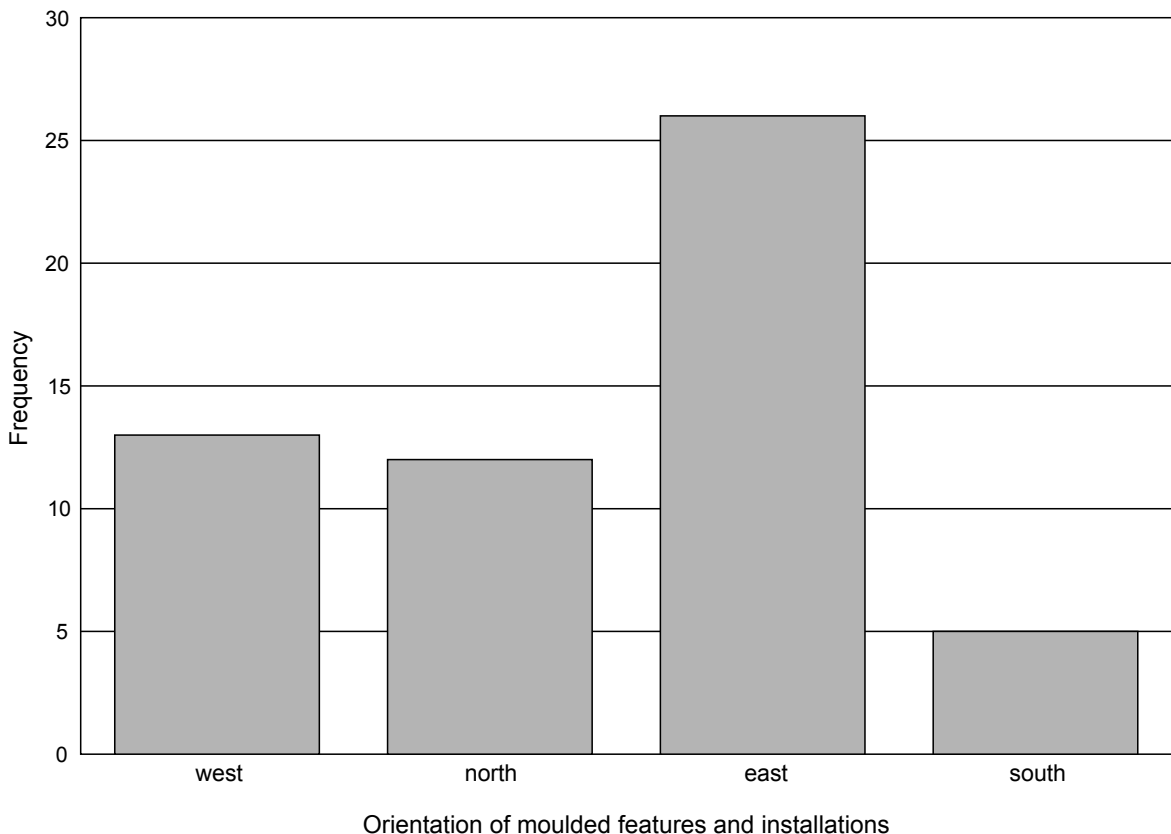


Figure 6.23: The orientation of certified moulded features and installations at Çatalhöyük (n= 56).

These moulded features and installations are located along the west, north and east walls, but are rare in the south (see fig. 6.23). Hidden beneath this overall distribution are more specific

²⁰³ However, a very similar animal head was found in the 4040 Area in the 2005 season (see www.catalhoyuk.com).

patterns. Moulded animal heads occur predominantly on west walls, clay protrusions were found only on the eastern walls, benches with inset horns were found mostly in the east, horned pillars seem to be associated with the north-east compartment, and leopards and animals in sunken relief occur primarily on north walls.

Out of 137 living rooms in the database only 38 are reported to have contained moulded features and/or installations, which is only 28 %. Moreover, for only 18 (13 %) of these living rooms can the presence of these features be substantiated on the basis of photographs or slides.²⁰⁴ These figures suggest that moulded features and installations were not ubiquitous amongst the Çatalhöyük buildings.

If we limit ourselves to levels VII and VI, during which mouldings seem to have been most prominent (see table 6.3), we can see that out of the 73 living rooms that can be distinguished for these levels, 30 are reported to contain moulded features or installations, and this can be verified for 16 living rooms (22 %). It is difficult to evaluate these figures. While many of the mouldings and installations reconstructed by Mellaart seem to have little factual basis, and I have already discussed the examples of rippled wall plaster and cut-out reliefs, some of the moulded features for which positive evidence is lacking may nonetheless be genuine features. Moreover, from the present excavations it has become apparent that many moulded features and installations may have been removed in the Neolithic (Hodder and Cessford 2004; Jónsson 2004; Cessford in prep-c; Last in prep-b). Thus, moulded features and installations may have been more common than the 22 % that can be certified. Nonetheless, it appears to me that these features were probably not present in every building in levels VII and VI. If that were the case, we could expect that more of these features would have been found in the South Area excavations of the ÇRP. Thus, I would argue that moulded features and installations were probably present only in a restricted group of buildings. If this is the case, these features may be related to activities that are not centred on the individual house and household, but may link several households. In the following section I will explore another set of data, the sub-floor burials, in which a similar type of patterning can be observed.

6.4.12 THE SUB-FLOOR BURIALS

The burials found at Çatalhöyük have raised a substantial amount of interest (Düring 2003, 1-4). The excavations at Çatalhöyük provided an impressive document of intramural burial traditions, on a scale that was unprecedented in the study of the Near Eastern Neolithic at the time of their discovery.

These burials normally consist of the interment of complete individuals below the house floors. Before I discuss the sub-floor burials I will briefly mention the human remains that were found in other locations. Two burials were found in midden areas by the ÇRP (neonate burial *Feature F.525* in midden space 199 of level XII; and male adult burial *Feature F.285* in midden space 115 of level VIII (Farid in prep)).²⁰⁵ It is no longer possible to determine how many burials, if any, were found in the 1960s excavations in midden areas (Mellaart 1967, 204). Interestingly in the off-site KOPAL Area excavations (§6.1.7), fragments of human bone were found amidst animal bones that are described as being discarded in a similar way as other bones, and many of these human bones seem to show evidence of gnawing by dogs (Roberts *et al.* in prep).

The sub-floor burials at Çatalhöyük were, for the most part, placed in a pit that was dug through the floor during the occupation of a building, and which was subsequently closed, after which the floor was patched. Given that floors were often renewed, the precise location and extent of a burial was probably no longer obvious in later phases of occupation. Apart from burials placed

²⁰⁴ These are buildings ÇRP.1, ÇRP.44, X.1 / ÇRP.23, VIII.27, VII.8, VII.19, VII.23, VII.31 (east), VII.44, VII.45, VIB.12, VIB.70, VI.7, VI.8, VI.10, VI.14, VI.31, VI.44, and VIA.6.

²⁰⁵ I am excluding a group of 18+ burials found in the northeast of the 4040 Area in 2003 (Boz and Hager 2003), because their spatial and temporal context remains to be clarified.

during the occupation of a building there are also graves that are associated with the foundation deposits of buildings, or that were placed during their abandonment.

Most burials at Çatalhöyük seem to have been placed as individual primary interments, although in some cases double or triple burials of multiple individuals placed simultaneously have been found. New burials often disturbed the remains of earlier burials, that were sometimes pushed aside or re-arranged. This practice regularly results in chaotic mixtures of skeletons in which there seems to be little concern for the integrity of the individual deceased person.

The burials were often, but not exclusively, found beneath the compartments located in the north-eastern part of the living room. Mellaart has interpreted these compartments as places for sitting and sleeping (Mellaart 1962, 47), and I have proposed a similar interpretation (§6.4.5). If we accept this interpretation, the association of the living and the dead seems to have been particularly intimate at Çatalhöyük: a relation in which some group members were resting temporarily, whereas others 'rested' on a more permanent basis.²⁰⁶

The Çatalhöyük burials are amongst the best-studied phenomena of the site, but nonetheless many issues remain to be clarified. The general perception of the Çatalhöyük burial practices has been heavily dominated by Mellaart's often highly imaginative interpretations concerning the treatment of the deceased and the ways in which males and females were differentiated in death. It was only in the wake of the new project at Çatalhöyük that Mellaart's interpretations of the burial record were scrutinised, in particular by Naomi Hamilton (1996). Using the unpublished notes of Ferembach and Angel, she challenged the gender differentiation that Mellaart perceived in the burial record. In the following I will briefly problematise three of Mellaart's key interpretations.

First, Mellaart has suggested that specific compartments were used to bury specific categories of people. For instance, he indicated that adults were placed mainly below the northeast compartment, whereas juveniles could be buried anywhere in a building (Mellaart 1962, 52). In a later report, particular compartments are held to be used for the interment of individuals according to gender, suggesting that the smaller northeast corner compartments was used for interring the males, and that the larger compartment immediately south of it, located along the east wall, was reserved for women (1964, 93).

No physical anthropologists were present during the 1960s excavations to sex the skeletons. In light of this consideration, Mellaart's distinction of gender or age specific burial compartments seems suspect and should be treated accordingly (Hamilton 1996, 245). From the ÇRP excavations it has become clear that there is no spatial differentiation in buildings determining burial locations according to sex or age (Hodder 1998b; Hamilton 2005, 301-2).

Second, a similar situation pertains to the grave goods. Some of the burials were richly furnished. Burial goods included, amongst others, obsidian mirrors and daggers, necklaces, bone belt-hooks, and mace-heads. Furthermore, some burials from level VI included some exceptionally well preserved items made from wood and plant material, such as wooden vessels, baskets, and cloth (Mellaart 1964, 84-92; Harrison 2004). In addition, in many cases the remnants of baskets in which burials were placed can be observed (Mellaart 1967, pl. 119; Hamilton 2005, 304-5; Cessford in prep-c).

Mellaart distinguished between burial goods commonly found in male graves and those prevalent in female burials (1963, 94-5; 1967, 208-9). According to Mellaart male grave goods included weapons, such as stone maces, obsidian daggers and points, as well as bone belt-hooks, whereas grave goods deposited with women consisted of items of jewellery, such as necklaces, rings, and bracelets, as well as obsidian mirrors and spatulae (interpreted as make-up applicators). We should keep in mind that not only are grave goods often very difficult to assign to specific skeletons, but more importantly, the skeletons were not sexed during the excavations, and there seems to be little real evidence on which Mellaart based himself (Hamilton 1996, 245). Further, no

²⁰⁶ For a close parallel of the association of the deceased with beds for the living see Gillespie (2000c, 146-51).

gender specific burial goods show up in the new excavations at Çatalhöyük (Hamilton 2005, 302-4), and these number over a hundred (Andrews *et al.* 2005, 261).

Third, an issue of some importance with regard to the burials of Çatalhöyük is the treatment of the dead prior to burial. Based on the fact that many of the skeletons were incomplete, Mellaart argued that they were secondary burials (1962, 52). Furthermore, in his reports an enigmatic painting from the north wall of VI.1 (Mellaart 1963, pl. 26-a) is interpreted as a depiction of charnel houses, in which the bodies of the deceased were excarnated (1963, 97-8), a process that is supposedly depicted in the ‘vulture scenes’ (§6.4.10; Mellaart 1964, 93; 1967, 166, 204).

The burials excavated by the ÇRP are generating important new insights into the Çatalhöyük burial practices. It has become clear that excarnation was not the normal practice at the site. The analyses performed by the physical anthropologists have demonstrated clearly that the large majority of the skeletons were put in place in primary burials, and have failed to find any kind of evidence pointing towards excarnation, although there are a few cases of secondary burials (Andrews *et al.* 2005, 274-5). While those who want to read the ‘vulture scenes’ literally (as depicting events that took place in real life) could argue that excarnation might have been practiced on people not buried at the site, it seems more likely that the ‘vulture scene’ depicts some mythical event rather than something that happened on a regular basis at the site.²⁰⁷

There are a variety of sources that inform us about the burials excavated at Çatalhöyük in the 1960s. First, there are Mellaart’s preliminary reports and his monograph. In these publications we can find numerous descriptive references to burials and grave goods, as well as some statements of a more interpretive kind. However, a systematic presentation of the burials, listing how many skeletons were found and in which buildings, and what type of grave goods were associated with them, is not available. In the course of his excavations Mellaart discovered an estimated 480 skeletons at the site (Mellaart 1964, 93; 1966, 183).

Second, the skeletal material from the 1960s has been studied by two physical anthropologists consecutively: first by Angel (from the Smithsonian Institute); and subsequently by Ferembach (based at the ‘Ecole Pratique des Hautes Etudes’ in Paris). Their work mainly involved characterising the biological and pathological characteristics of the burial assemblage (Angel 1971; Ferembach 1972; 1982). Angel published a short article on pathologies in the Çatalhöyük skeletal assemblage (1971), and Ferembach published a short report on the cranial characteristics of the people from Çatalhöyük (1972). Both articles are preliminary in nature and do not present identified skeletons and their characteristics. Instead the focus is on global features of the population expressed in summary tables. As a result of this focus, the articles published by Angel and Ferembach are not very helpful for localising the Çatalhöyük burials.

Third, the notes made by the two physical anthropologists were re-analysed by Hamilton (1996), who provides some data on the distribution of the burials over the settlement, but failed to provide a systematic database of the burials and the locations in which they were found.

In order to obtain a more accurate database of the burials excavated in the 1960s at Çatalhöyük I have made a study of the same set of notes and unpublished documents. The methodology used and the results of this study have been reported in a separate report (Düring 2003) and will not be repeated here. For the purposes of this chapter it will suffice to discuss the characteristics of the burial records and the problematic nature of the archives.

Comparing the documentation of the two physical anthropologists it became clear that Ferembach studied a larger assemblage of skeletons, and took more care to reassemble fragmented bones. Given these circumstances the data enumerated in Ferembach’s unpublished manuscript ‘Mesures et indices des squelettes humains Neolithiques de Çatal-Hüyük’ were used as the most

²⁰⁷ In the words of Last (1998a, 362): “Rather than depicting single events in specific locations, paintings like those of the vultures may have established links of meaning between a variety of practices, and served as a set of resources for thinking about the world.”

reliable source of documentation, augmented by the information that could be found in Mellaart's reports.

The data from Ferembach's manuscript are far from unproblematic. First of all, a considerable amount of confusion exists with regard to the derivation of skeletons, or groups of skeletons. It is often not clear in which buildings the burials were excavated. Some burials are supposed to derive from buildings that, as far as we know, do not exist, such as V.49 and XI.35. In other cases, Mellaart reports burials from buildings that are missing from the records of both Angel and Ferembach. In total, the burials from 18 buildings, that contained burials according to Mellaart's publications, are not present in Angel's and Ferembach's files.²⁰⁸ Second, both Angel and Ferembach list a considerable number of skeletons without labels, but Ferembach has many more 'no label' skeletons than Angel, amounting to 9% in Angel's records (27 individuals), and 18% in those of Ferembach (85 individuals). I have argued that the majority of these problems with the derivation of skeletons, both with regard to non-existing buildings and skeletons without labels, arise from errors occurring in the process of reading and rewriting labels (Düring 2003), rather than a loss of skeletons as was argued by Hamilton (1996, 244).

To these burials excavated in the 1960s we can add those that were found by the ÇRP. For the present study I have included those burials excavated in the period from 1995 to 1999 (Andrews *et al.* 2005; Molleson *et al.* 2005), the burials excavated in the BACH Area, and a group of burials in VII.9 / ÇRP.50, that were excavated by myself in 2004. Only a limited number of buildings were excavated by the ÇRP, but nonetheless a significant number of burials have been found. This is mainly the result of the remarkable number of 62 burials found in ÇRP.1, which constitutes the largest building sub-floor burial group at the site. What is of note in the burial population found by the ÇRP is that a much higher amount of juveniles, including neonates and children, was recovered than in the 1960s (Molleson *et al.*, 2005, 281, table 12.3). For example, in Building ÇRP.1 over half of the individuals are neonates, juveniles and adolescents, compared to ca. 24 % in the records of Ferembach. This difference is probably due to the more careful methods of excavation and recovery practiced by the excavators and the physical anthropologists involved in the current project.

The resolution of the data from the ÇRP and that of the 1960s differs dramatically, and is more pronounced than for any other set of data pertaining to fixed features at the site. For the 1960s the best that can be done on the basis of the extant archives is a reconstruction of the number of burials, classified by age and sex categories, per building. Considering the problematic nature of the documentation and the fast pace of excavation in the 1960s, these figures should be regarded as approximations rather than accurate data that document the burials that were present in the buildings excavated. Such poor resolution data can be used, however, to investigate patterns at a general level, for example to study whether buildings differ from one another with regard to the number of burials that they contained (Düring 2003).

What the 1960s data do not provide is the manner in which the burials relate to the developmental trajectory of the buildings in which they were placed, and issues of orientation and precedence. This type of detailed evidence is available for the ÇRP excavations, but only for a few buildings (Andrews *et al.* 2005; Molleson *et al.* 2005; Cessford in prep-c; Farid in prep). Thus, at present it is not possible to quantify the orientation of sub-floor burials at Çatalhöyük in a meaningful way, because our sample with reliable data is simply too small. Nonetheless, I believe it is useful to provide a brief overview of the more recent evidence.

²⁰⁸ Buildings A.II.1; III.1; III.4; IV.1; IV.9; IV.10; IV.A.1; V.4; V.10 (west); V.17; VI.A.25; VI.B/A.10; VI.B/A.31; VI.B.12; VI.B.15; VII.08; VII.12; VIII.1.

Burials were most common in building ÇRP.1, which contained 64 buried individuals.²⁰⁹ Six burials are associated with the initial construction phase 1.B of this building. These consist of four neonates and two adults, all placed in the main room of the building. Three of the neonates were buried in the southwest of this room, an atypical burial location, near to the later doorway to the storage rooms. Thirty-nine burials were associated with the later phase 2.B, which is the first major occupation phase of the building. These burials include ten adults, one adolescent, sixteen children, eleven infants, and one indeterminate person. These burials were predominantly placed in the northwest and north-central compartments, but some were placed in the east-central compartment. In the following occupation phase 2.C twelve more burials were placed in the main room, consisting of four adults, one adolescent, five children, and two infants, which were placed in the same compartments as in the previous phase. Finally, seven burials have been assigned to the late occupation phase 4, during which six people (five adults and one adolescent) were buried in space 110, in what had previously been the east-central compartment, and one child was buried in the north-west compartment. What can be noted from this brief overview of the ÇRP.1 burials is that despite the large number of individuals that were interred, they were all placed in a restricted area of the building, namely the compartments in the north-west, north-central and east-central locations, but not in other parts of the building or in the ante rooms. The only exceptions to this are the burials of neonates in the south-western part of the main room, and these have been interpreted as foundation burials (Cessford in prep-c).

The other buildings excavated by the ÇRP have fewer burials. The main room 'space 86' of ÇRP.3, in the BACH Area, had only eight burials, consisting of two adults, two adolescents, and four children.²¹⁰ ÇRP.2, the only other building that has been completely excavated so far, did not have any sub-floor burials (although its ante room, space 116, remains to be excavated). In the South Area as a whole, approximately 38 burials were excavated that are included in the present database, most of which derive from buildings IX.10 / ÇRP.17 (4), VIII.10 / ÇRP.6 (10), and VII.9 / ÇRP.50 (16). In IX.10 / ÇRP.17 a single skull of a female was found in the post packing (placed prior to insertion of the post), and three people were buried in occupation phase D, consisting of an adult female and two infants placed in the south and east of the main room. Building VIII.10 / ÇRP.6 contained one burial in its ante room, an infant placed near the access to the main room, and three adults, four infants and two neonates in the main room. One of the adult burials, *Feature F.492*, was of an adult male without a skull. The absence of this skull has given rise to the idea that the skull may have been curated to be incorporated into the successor building (Hodder and Cessford 2004, 35).²¹¹ These burials were placed in various parts of the room, and no clear clustering is apparent.

The same is true for the sixteen burials that were found below the floors of VII.9 / ÇRP.50, which consisted of seven adults, four children, two infants, two neonates and one sheep! The case of the lamb that was co-buried with an adult male in the north compartment is, so far, unique at Çatalhöyük and its implications are discussed in a separate publication (Russell and Düring in prep). What I would tentatively suggest from this overview of burials in the South and BACH Areas is that the location that was appropriate for interring people in buildings with a few sub-floor inhumations was much less circumscribed than in ÇRP.1. Future research will have to clarify whether this relation between burial density and a more circumscribed clustering and orientation of these burials also holds true in other buildings with many inhumations. A second pattern that seems to emerge, although this too should be regarded as tentative, is that in buildings with few sub-floor burials relatively more neonates and infants are found.

²⁰⁹ Note that in the human remains report a total of 62 burials is mentioned for ÇRP.1 (Andrews *et al.* 2005, 261; Molleson *et al.* 2005, 279), but when the burials mentioned by Cessford (in prep-c) in his excavation report of that building are compiled the grand total is 64.

²¹⁰ At least eight burials are located in the adjacent space 87, but this probably belongs to another building.

²¹¹ The treatment of skulls at Çatalhöyük will be further discussed later in this section.

Having discussed the burials from the ÇRP excavations, I would like to shift the focus to the more general questions that can be asked on the basis of the 1960s data. The total of burials in my database at present is 685, of which 580 can be assigned to a specific building (see table 6.4). According to these records about 50 % are adult skeletons, 3 % belong to adolescents, and 25 % to juveniles, while the remainder of approximately 22 % cannot be aged. Further, regarding the adults, approximately 50 % of the skeletons are female, 39 % male, and the remaining 11 % could not be securely sexed.

	Angel		Ferembach		With ÇRP data	
Total	299 (100 %)		462 (100 %)		685 (100 %)	
Adults	216 (72 %)		275 (60 %)		344 (50 %)	
Adults specified	Males	75 (35 %)	Males	115 (42 %)	Males	133 (39 %)
	Females	127 (59 %)	Females	148 (54 %)	Females	173 (50 %)
	indet	14 (6 %)	indet	12 (4 %)	indet	38 (11 %)
adolescents	23 (8 %)		12 (3 %)		20 (3 %)	
Juveniles	60 (20 %)		99 (21 %)		174 (25 %)	
age indeterminate	0 (0 %)		76 (16 %)		147 (22 %)	

Table 6.4: Minimum total number of skeletons excavated in the 1960s according to Angel's and Ferembach's notes and with the Çatalhöyük Research Project data.

Given that approximately 685 burials were found in a total of 437 rooms, the average number of people buried per room would be about 1.6. However, the burials are not evenly spread across the rooms. The 580 burials that we can locate to a total of 76 rooms are predominantly located in 63 living rooms (83 %), while burials were also found in four ante rooms and 9 rooms that could not be classified.

The average number of burials per living room is 3.8.²¹² The question that I want to pose at this point is whether everybody was buried on site. In an earlier section (§6.2.6), it has been argued that the average use-life of a Çatalhöyük building was approximately 60 years. Assuming that at least four people would have been associated with each living room (see §6.5.2), this would imply some 240 man-years spend in these buildings. If only about four people got buried in such a building this would mean an average life expectancy of approximately 60 years.²¹³ Such a life expectancy does not seem realistic at Çatalhöyük, given that only 50 % of the buried individuals are adults. Thus, it appears that not everybody who lived at Çatalhöyük was buried beneath the building floors (Hamilton 1998, 8).²¹⁴

On the basis of the demographic data outlined above it seems that there is no clear criterion operating behind the selection of people buried on site. This point has previously been argued in other studies (Mellaart 1967, 206; Todd 1976, 67, 72; Düring 2003). Both adults and juveniles are present, and both sexes seem to be represented in more or less equal measures. Thus, neither age nor sex seems to have been the determining factor for deciding who was buried on-site beneath building floors.

Another issue that I want to address here is the relation of the sub-floor burials to the building in which they occurred. By contrast to the mouldings and paintings the sub-floor burials were associated by Mellaart with the domestic sphere of life, with each household burying their

²¹² In total 517 burials have been found in living rooms, and there are 137 living rooms. $3.8 = 517 / 137$. However, it has already been shown that only 63 of the 137 living rooms actually contained burials, so this average is not very relevant statistically.

²¹³ Note that this life expectancy would be even more substantial if the average group of people associated with a living room is set at a higher number.

²¹⁴ Tentatively I would estimate the on-site burials to constitute about 50 % of the living population, assuming a life expectancy of about 30 years.

deceased beneath their floors during the occupation of a building (Mellaart 1964, 92-3; 1967, 205). He is unable to explain the maximum of 32 buried individuals he found in VI.10 in this manner, however, and notes that it is not possible to link the length of the occupation of a building directly with the number of burials beneath their floors (*ibid.*).

Other buildings with a large number of burials beneath their floor include VI.7 (29 buried individuals), VI.1 (32), F.V.1 (33), VIB.34 (43) VII.31-east (49) and ÇRP.1 (64). Clearly, these burial populations are much too substantial to encompass only the deceased of a single household. It would appear that non-resident people were also buried in these buildings. This interpretation can be further corroborated by the fact that many buildings contained no sub-floor burials at all. The majority of the living rooms, 74 out of 137 (or 54 %) did not have any sub-floor burials. It is probable that the number of buildings containing burials may in reality have been somewhat higher, because in many buildings excavated in the 1960s, excavations did not proceed to the sub-floor deposits, and in consequence the burials in these deposits were not investigated. Nonetheless, we can be confident that many buildings were devoid of burials on the basis of evidence of the level VIB.

To further elucidate the variability in burial density amongst the Çatalhöyük buildings level VIB in the South Area is particularly appropriate for two reasons. First, a large exposure has been dug for this level, enabling us to plot the evidence across a neighbourhood, rather than a few buildings. Second, across the entire area of the level VIB exposure in the South Area, the excavations proceeded to the earlier level VII buildings at a lower level.²¹⁵ This circumstance is of considerable importance because only in those cases where the Mellaart excavation proceeded to lower building levels were the sub-floor burials excavated. As an example I can mention building VII.9 / ÇRP.50, that was excavated to the floor horizon and published by Mellaart. Recent excavations of the remnants of this building and the sub-floor deposits revealed that no less than 15 people and one complete sheep were buried beneath the floor during the occupation of this building (Düring 2005b; Farid in prep).

In light of these considerations, level VIB in the South Area is one of the best windows into burial practices at Çatalhöyük. The total numbers of burials per building are represented in figure 6.24. The number of buried persons in this figure could under-represent the burial populations that may have been present in the level VI buildings. Given that the excavations proceeded at a rapid pace in the 1960s it seems plausible that some skeletons may have been overlooked. However, my interest at this point is mainly with the proportional differences between the sub-floor burial populations of buildings, and we can be confident that for this purpose the data presented serve their purpose.

If we plot the distribution of burials for level VIB the picture that emerges is as follows. Burials are mainly found within four rooms that seem to have been particularly suitable for placing the deceased. In addition there are some buildings with only a limited number of burials below their floors, indicated by dots of a smaller size. Finally, there are many rooms that contained no sub-floor burial at all. Most of the sub-floor burials were located in living rooms, but in some cases burials were found in ante rooms. Usually when this is the case, the ante room is part of a building where the main room also contains sub-floor burials.²¹⁶

²¹⁵ A group of level VI buildings excavated in the final season, and designated VI.70 – VI.80 were not taken down to the next building level (Mellaart 1966), and are here excluded from the discussion.

²¹⁶ For instance ante room VIB.11, that was connected to building VIB.10, and ante room VIB.8b, that was part of building VIB.8.



Figure 6.24: Burial populations of level VIB buildings in the South Area at Çatalhöyük, rooms with over 25 burials identified with building number (n burials=258).

In total only 21 of the 118 rooms of level VIB rooms represented in figure 6.24 contained sub-floor burials, which is about 18 %. If we focus exclusively on the living rooms, 42 % have sub-floor burials.²¹⁷ Many of these living rooms have only a few burials, however. Moving from the spatial representation of the burials across the excavated area to figure 6.25, which represents the burial populations of level VIB in another manner, it is clear that only four rooms (the main rooms of buildings 1, 7, 10, and 34) with over 25 burials each, together contained the majority of the level VIB burials in this part of the settlement. These burials amount to about 53 % of all the burials under consideration (136 out of a total of 258 buried persons).

²¹⁷ 14 living rooms out of a total of 33 living rooms in Mellaart's Areas E and A contain sub-floor burials.

From these data we can conclude that the distribution of burials over the buildings at Çatalhöyük is uneven and varies dramatically between buildings. The idea that the intramural burials represent the deceased inhabitants of a building (Mellaart 1964, 92-3; 1967, 205) can be discounted since the majority of buildings seem to have contained no burials at all. I have also discussed examples of buildings in which more burials were found than could possibly be accounted for by the death toll amongst a single household, and it appears that non-resident people were also buried in these buildings.

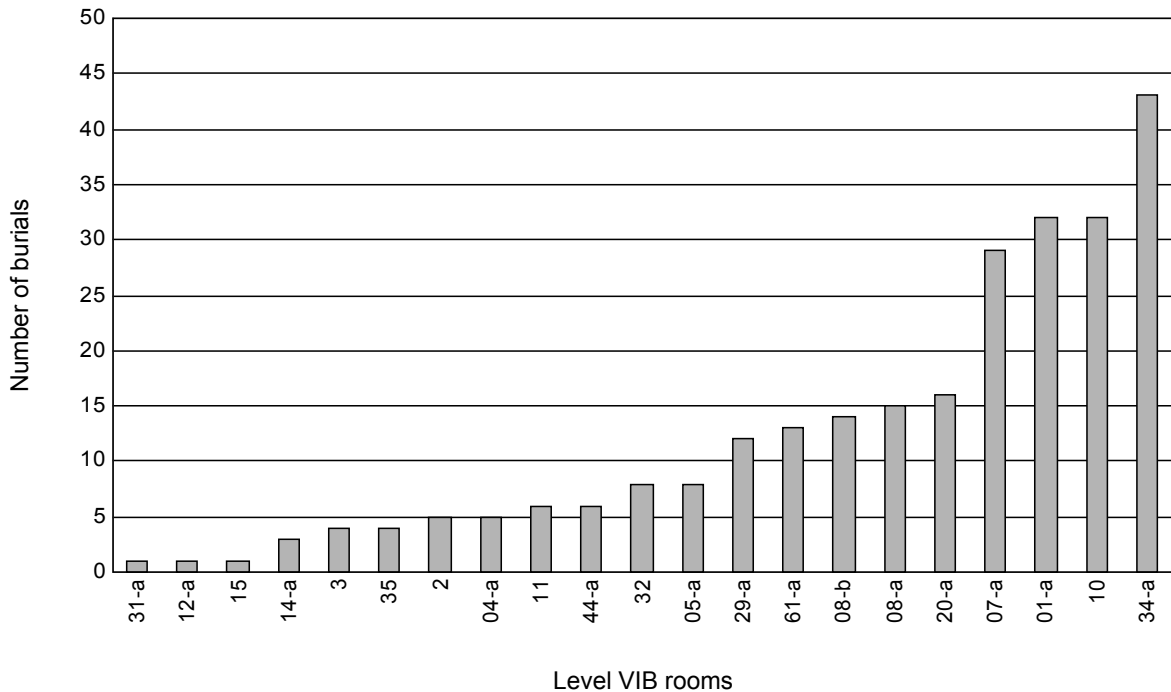


Figure 6.25: Çatalhöyük level VIB rooms containing burials (n rooms= 21, n burials= 258).

Why were specific buildings more appropriate than others for placing the dead, to the degree that people resident elsewhere could be buried in these buildings rather than the one they had lived in? I would argue that there was a differentiation of buildings, and that buildings with many burials constituted a special class of building. This hypothesis will be further explored later in this chapter (§6.6.1).

It remains to address the most basic question concerning the sub-floor burials at Çatalhöyük: in what manner do they relate to the buildings that they were found in, and to the other people buried in the same structure? Two interpretations can be put forward to make sense of the burial groups clustered in particular buildings.

A first hypothesis that has been proposed is that we are dealing with some form of ancestor group. For instance, Macqueen (1978) and Wunn (2001) interpret the Çatalhöyük burial practice of multiple interments in the same location as a belief in an ancestor community.

Recently, a lot of attention has been devoted to: first, the occasional secondary removal of the skull from burials; and, second, the occurrence of isolated, and in one case plastered, skulls, as examples of practices in which the remains of ancestors were curated and incorporated into later buildings (Hodder and Cessford 2004, 35; Cessford in prep-c). There is now a substantial amount of evidence for the isolation and curation of human skulls. One adult burial of which the skull was later removed, *Feature F.492* found in building VIII.10 / ÇRP.6, has already been mentioned. On

the atlas vertebrae cut marks were present, suggesting that the skull was cut loose from the rest of the body (Andrews *et al.* 2005, 270-2). In ÇRP.1 a similar burial (*Feature F.29*, unit 1466) was found of an adult male lying on his back with the skull removed. In the 2004 season a headless skeleton was found in ÇRP.50 (*Feature F.1711*, skeleton 10814) of which the skull was placed in a nearby post-retrieval pit (*Feature F.1705*, skull 10834, Düring 2005b). In the same season a plastered human skull was found in building ÇRP.42 (*Feature F.1517*, skull 11330, Boz and Hager 2005). Mellaart mentions a similar example of a skull coated in red ochre with eye sockets reconstructed as being inlaid with cowry shells that was found in building VII.10 (Mellaart 1966, 183, pl. 50-b). Finally, a number of untreated skulls found in isolation can be mentioned. These include a skull found in a post-retrieval-pit in IX.10 / ÇRP.17 (Farid in prep), two skulls without jaws that were found in ÇRP.3 (BACH Area), in what seems to be the building fill (Stevanovic and Tringham 1999), and four additional skulls were reported to have been found on the floor of building VII.21 (Mellaart 1964, 64, figs. 21 and 22; 1967, 84).

These examples of skull removal and curation constitute an exceptional rather than a common practice at Çatalhöyük, in contrast to the PPNB in the Levantine region, where the removal of skulls from graves and the plastering of skulls were more wide spread (Bienert 1991; Kuijt 2000; Talalay 2004).²¹⁸ The large majority of the burials at Çatalhöyük were primary burials, although some were disturbed in the course of later burial activities (Andrews *et al.* 2005, 274-5). It seems plausible that for this limited group of burials ancestor cults may have played a role, but this should not be extended to the Çatalhöyük burial practices at large. The intramural burials at the site include a large proportion of neonates and children, and these are unlikely objects of ancestor veneration (Morris 1991; Helms 1998, 35-6; Bonogofsky 2004).

An alternative model for fact that some of the Çatalhöyük buildings contain many burials is to regard them as a burial site used by a larger kin group, such as, for instance, a lineage. Communal tombs for collective burials of lineage members are well documented in anthropology (Metcalf and Huntington 1991; Waterson 1995; Chesson 2001), and the Çatalhöyük buildings may have functioned in a similar way. There are some examples of societies where houses serve as a burial site in which people related to a kin group, not all of whom are necessarily resident in that specific house, may be interred (Waterson 1990, 221; Hugh-Jones 1995, 228; Kirch 2000; Gillespie 2000c; Joyce 2001). Particularly appropriate as a parallel for the case at Çatalhöyük seems the practice in pre-colonial Roti society, in Indonesia, described thus by Waterson (1990, 221):

“Identification of the living and the dead with the house is particularly marked in Roti. Here the dead were buried under the house floor, while their spirits took up residence in the loft”, and: “One is not necessarily buried in the house one has lived in, but in a clan house already designated as an *uma nitu* or ‘spiral house’, that is, one in which other burials have already taken place and which has therefore accumulated ritual power and is regarded as a sort of temple.”

There is much in this example of the Roti that seems relevant for understanding the practices at Çatalhöyük. I will argue in this chapter that the buildings with large groups of sub-floor burials at the site are also central to social collectivities larger than the individual households and that the people buried in these buildings are all members of a kin group centred on these buildings.

In this discussion I have bypassed archaeological interpretations that have contrasted intramural burial practices with burials placed in cemeteries. In the context of the Near Eastern Neolithic, intramural burial practices seem to occur only in the Neolithic, after which burials are generally placed in cemeteries (Hole 1989; Bacvarov 2003). Hodder (1990, 33) has argued that the practice of burying people within the house may have been an effort to bring death under cultural

²¹⁸ Plastered skulls have also been found at the Middle Chalcolithic site of Köşk Höyük. In total 12 plastered skulls were found there that have been plastered with clay, and one skull may have had the eye sockets inlaid with shells (Silistreli 1988, 62; Öztan 2002, 57; Bonogofsky 2004). The skulls belonged predominantly to adults but included one child (Bonogofsky 2004).

control. While this hypothesis does provide a solution for the fact that people were only buried within the house during the Neolithic, as part of a process whereby the wild and dangerous was brought under cultural control, it is problematic, because many people at Çatalhöyük and at other sites were not buried in the settlement (Yakar 1991, 327-9; Perlès 2001, 281; Bacvarov 2003).

Others have argued that intramural burial practices were linked to the emergence of the family as the central nexus of society, and that the later cemeteries can be linked to an increased importance of the larger community (Hole 1989, 177; Chapman 2000, 147-9; Balossi Restelli 2001, 35-7). On the basis of the clustering of burials in specific buildings at Çatalhöyük I would disagree with this model, because these burials do not seem to refer to the household group, but to a larger social collectivity.

Chapman (2000, 147, 181) has further argued that intramural burials show less age and gender differentiation than those in cemeteries, and this hypothesis seems to fit for Çatalhöyük where this type of differentiation is remarkably absent (Hamilton 1996; 2005). Future research is required, however, to determine whether gender and age differentiation in the Çatalhöyük burials is truly absent, or whether our sample of reliable evidence is simply not large enough to perceive such patterning.

6.5.1 INTERPRETING ÇATALHÖYÜK BUILDINGS

It is apparent from the preceding sections that at Çatalhöyük houses are locales in which a variety of phenomena came together that related to a series of distinct practices involving various social collectivities and occurring with different frequencies. It would be erroneous to think of Çatalhöyük buildings only as domestic entities serving purposes related to a set of daily chores such as food processing, resting, and the socialisation of children. At specific moments the buildings could be used by other groups for different types of activities. For instance, the group of people participating in a burial ceremony could have included people not normally resident in the house.

The fact that the uses to which houses are put at Çatalhöyük include much more than domestic activities, and were not separated from other spheres of activities such as the economic, ritual and political, should not come as a surprise given that the emergence of the domestic sphere as a separate domain has been argued to be a relatively recent phenomenon (Bott 1957, 98-101; Brück 1999, 61; Spencer-Wood 1999; Bradley 2005, 41-80). Further, even in our own society houses can serve many purposes apart from domestic ones. Consider for instance, the manner in which a feast temporarily transforms the house.

In the following sections I will discuss a number of aspects of the buildings at Çatalhöyük. On the basis of the rich evidence presented in the previous sections a range of issues can be explored in relation to these buildings. A first element to be investigated concerns the form and size of household groups and how they might have related to the buildings that they inhabited. Second, the spatial organisation of the Çatalhöyük buildings will be evaluated, and the factors that might have structured that configuration of elements. Third, the distribution of 'non-domestic' features such as wall paintings, moulded features and installations, and sub-floor burials will be investigated, to explore to what degree buildings can be classified into distinct categories.

6.5.2 DEFINING DOMESTIC UNITS

Earlier in this chapter I have shown that the rooms at Çatalhöyük can be classified into three groups of a different signature (§6.3.1). First, there are 'living rooms' that were first distinguished on the basis of the presence of both compartments and hearths/ovens. These living rooms were shown to be significantly larger than the other rooms, with an average size of 20.9 m². In later sections it was demonstrated that compartments, benches, hearths, ovens, wall paintings, moulded features, installations, and sub-floor burials all predominantly occur in the living rooms, while storage features, such as bins, silos and basins, may occur both in living rooms and elsewhere.

Second, a class of rooms was distinguished that were designated ‘ante rooms’, on the basis of the fact that they were part of the same building as a living room, but did not contain a combination of compartments and hearths/ovens. These rooms were no larger than 12 m², but their average size is closer to 5 m². They are mostly of a width not exceeding 1½ metres and are in most cases accessible from a living room via an internal door or porthole. These rooms often contain storage features, and occasionally had a bench, oven, or burial.

Third, a limited number of rooms could not be assigned to either of the two above categories, and were classed as indefinite. Most of these rooms seem to have been ante rooms, and some of the larger examples were probably living rooms that have been poorly preserved, so that compartments and hearths/ovens could no longer be discerned.

The rooms at Çatalhöyük can be grouped into building units on the basis of the articulation of the exterior walls (§6.3.2). On this basis building units can be readily distinguished at Çatalhöyük, and in general the buildings differentiated in this manner are remarkably modular and are of a similar size range of about 12-38 m², with an average at about 26.6 m². Apart from these normal buildings, there are a few examples of buildings with multiple living rooms at Çatalhöyük, some of which are well documented (§6.3.2), but these provide similar sized living rooms as the other buildings at the site.

If we apply the same cross-cultural estimates for roofed space per person that were earlier used for Aşıklı Höyük (§4.5.1) and Canhasan III (§5.5.1) to the single living room buildings at Çatalhöyük it appears that these buildings were probably large enough to have housed a nuclear family, and some could potentially have housed larger, extended families (table 6.5).²¹⁹ Clearly such a proposition on the basis of a cross-cultural estimate is problematic, and requires to be confronted with contextual evidence. Çatalhöyük provides an excellent opportunity to do this.

Single living room units	Size	Naroll 1962	Cook and Heizer 1968	Casselberry 1974
Smallest	12 m ²	1.2 persons	5.2 persons	2.0 persons
Average	26.6 m ²	2.7 person	7.3 persons	4.4 persons
Largest	63 m ²	6.3 persons	10.9 persons	10.5 persons

Table 6.5: Population estimates of Çatalhöyük single living room units using three formulae that relate roofed floor area to the number of inhabitants.

Did the Çatalhöyük single living room units, which were by far the most common type of building, function as discrete household residences? The fact that these were modular buildings each containing a living room with a suite of domestic features including hearths, ovens, compartments, and storage features, and sometimes additional ante rooms, seems to suggest that they might indeed have functioned as such in some respects. Both in terms of residence and in terms of the compartmentalisation of storage, production and consumption of subsistence goods, households at Çatalhöyük seem to have been more or less autonomous entities (§2.4.3; §6.4.2-7). It follows that each house functioned as the principal and discrete focus of the economic and social needs of a family group.

Apart from using the interior sizes of buildings, the average household size can be modelled on the basis of the number of compartments found within them. Mellaart estimates that the sleeping compartments facilitated a maximum of eight residents but that the normal size of the group inhabiting buildings was more in the range of three to four (Mellaart 1967, 60). I have suggested that in the average living room there would have been place for between four and six people on the clean compartments in the north and east of the building (§6.4.5; Düring 2001, 5). Finally,

²¹⁹ Cessford (2005) arrives at an estimate of four to nine individuals applying these formulas to a postulated averaged size building of 40 m², but this building size is too high (§6.3.2).

Matthews (1996, 86) has estimated the average household size at four residents. While all of these numbers rely on guesswork, there is some consistency in them. As a hypothesis an average of 4 to 6 inhabitants to a building seems plausible, and in this chapter I will use 5 people as an estimate for the modal household size.



Figure 6.26: Plan of level VIB in the South Area.

The single living room buildings at Çatalhöyük vary considerably in their size, however (see figure 6.26). On the one hand there are moderate sized buildings, such as VI.1, and VI.8. On the other hand there are smaller single room buildings, such as VI.2, and VI.3, that nonetheless seem to possess the whole suite of domestic features that define a living room. Given this variability it is plausible that the latter were used either by smaller household groups, or by less privileged households.

The multiple living room units, only six examples of which have been documented, would have encompassed two or more of such household groups, which were in close contact with one another, and in many cases these groups could maintain contact via internal doors and may have shared the use of storage features in ante rooms (see VI.7/14 in fig. 6.26). The relation between these groups might have been diffuse and they may not have thought of themselves as distinct households. Nonetheless, separate living rooms were constructed. An interesting testimony to the 'close but separate' status of these multiple living room buildings is provided by buildings IX.1 / ÇRP.22 and IX.8 / ÇRP.16, that was constructed with one batch of loam slabs, but with distinct mortar that interlensed in the interior party wall separating the two (Farid in prep). The most plausible interpretation of these multiple living room units, to my mind, is that they were used by close kin, for instance the families of two siblings. Closing an interior door in the Çatalhöyük buildings was simple and did not require much effort (§3.4.1), and in this respect the decision to maintain such a door must have been socially significant.

From the considerations so far we can conclude that most people would have been living in relatively self-contained single living room buildings with or without ante rooms. These buildings vary somewhat in size, which suggests that the households living in them may not have been equivalent in size and or status. In addition, we find a limited number of multiple living room buildings in which households were more closely associated with one another.

The relation of the people to the building that they inhabited remains to be clarified in the following sections. Three issues that need to be addressed are: first, what the temporal dynamics of these buildings were; second, why certain buildings contain more burials and are more elaborate in other respects than others; and third, why buildings are clustered into neighbourhoods rather than being placed separately. It will be shown that all these issues are interlinked. First, however, it is necessary to evaluate the internal configuration of buildings at Çatalhöyük.

6.5.3 THE INTERIOR CONFIGURATION OF LIVING ROOMS

The living rooms at Çatalhöyük are characterised by a clear configuration of elements and a more or less standardised orientation of features. Low plastered ridges divide the living rooms into a number of compartments (§6.4.2) that can be differentiated from each other in terms of: first, the frequency and quality of floor plaster applied to these compartments; second, the presence of micro-debris and chemical residues related to food processing and craft activities; third, the presence of features, some of which occur predominantly in the south compartments, and, others that occur more often in the north and east of the living rooms.

In general the southern part of the room is associated with the entrance into the room from above: where evidence for ladders is available they are located predominantly in this area (§6.4.2; Mellaart 1963, pl. 16-b; 1967, pl. 4; Cessford in prep-c; Farid in prep).²²⁰ In the same area of the buildings most of the hearths and ovens were located, with hearths often occupying a central position, and ovens often built adjacent to or into the south, east or west walls (§6.4.6). Storage features also tend to cluster in the south of the living rooms, although they may also occur in ante rooms (§6.4.7).

The southern part of the room, which was used for food processing and craft activities, can be contrasted with the eastern and northern part of the room, where compartments are located that are more regularly plastered with better quality plaster, have less micro debris or chemical residues indicative of activities, and that were most likely used, amongst other matters, for resting and sleeping (§6.4.3; §6.4.5). It is here that most of the wall paintings were located (§6.4.10) and that moulded features and installations are most often found (§6.4.11), although these features also occur in other locations. Finally the sub-floor burials seem to occur most frequently in the north

²²⁰ The discussion of the distribution and orientation of ladders in the Çatalhöyük settlement has not been undertaken in this chapter because good evidence is restricted to a few cases only.

and east of the living rooms, although too little evidence is available to substantiate this point at present (§6.4.12).

From this survey of the compartmentalisation of the Çatalhöyük living rooms and the distribution and orientation of features in these buildings, it is apparent that a pervasive spatial code existed determining a configuration of space that is recurring in a pattern far too regular and standardised across the settlement to be coincidental. In this section I will evaluate the possible explanations for this standardised internal configuration of buildings.

One possible explanation has been put forward by Mellaart, who argued that the organisation of elements in the living rooms was influenced by the system of illumination, that was related to the topology of the mound and the way in which buildings were constructed in a series of terraces rising from west to east (given that he excavated on the south-western slope of the mound). In the reconstruction of Mellaart (1963, 56):

“Each house has its own walls and this becomes understandable for only in this way could adequate lighting be ensured. The rooms rose in tiers, and so did the roofs (and floors), each rising just enough over its lower neighbours to allow for windows in the west and south wall. The light so provided would mainly illuminate the east and north walls of each room and it is here that the working, sitting, and sleeping platforms are placed to take full advantage of the light.”

This suggestion put forward by Mellaart seems plausible enough, although no positive evidence for the windows in the west and south walls exists. However, if this model were accurate one would expect that buildings in other parts of the mound would have other orientations, given that their illumination would derive from a different direction. The spatial organisation of the buildings excavated in the North, Bach and 4040 Areas by the ÇRP, that are located either on the mound summit or on the eastern slope, is exactly the same as in the area excavated by Mellaart on the west slope, however.

To my mind, the standardised internal spatial configuration of the buildings at Çatalhöyük cannot be explained by functional considerations alone. Rather, these buildings seem similar to the cases described by ethnographers where the house embodies a micro-cosmos, and is a medium through which cognitive schemes are inculcated and reproduced (§2.4.8). In many societies parts of the house may take on a range of social and symbolic meanings, and the configuration of elements may take on a great significance that is of key importance to the creation and reproduction of the social order (Bourdieu 1973; Richards 1996).

Hodder (1987; 1990) has argued that the house at Çatalhöyük, and those in the Neolithic of Europe, did function in this way, and embodied a set of structuring oppositions, such as nature and culture, wild and domestic, and female and male, that were of key importance for the conception, articulation, and transmission of the Neolithic way of life. This symbolic quality of Neolithic buildings was captured by Hodder in the term ‘domus’.

The domus model can and has been critiqued in many ways (§2.4.8), but here two points will be noted. First, Çatalhöyük is not an early Neolithic site. Both agriculture and animal husbandry had been practiced for many centuries, and it is perhaps erroneous to perceive the opposition between wild and domestic as one that was problematic to people at Çatalhöyük, and had to be in the fore of their symbolic concerns (*cf.* Van de Velde 1992, 246; Ingold 1996, 22). Second, and more importantly in the context of this study, is the exclusive focus on the individual houses as arenas of social and symbolic reproduction, a model reminiscent of modern society in which the family acts as the most important vehicle for the socialisation of individuals (Allison 1999, 8; Brück and Goodman 1999, 3-4). People at Çatalhöyük were living in a large community and too little account is taken of this in the domus model (Düring and Marciniak 2005).

Despite these critiques there is much in the domus concept that I agree with. Given the standardised configuration and orientation of elements in the living rooms at Çatalhöyük it seems very plausible to me that these buildings acted as a kind of micro-cosmos, embodying a set of symbolic principles central to society at Çatalhöyük. Personally, however, I would hesitate to try to

reconstruct the symbolic structures embedded in these buildings, for two reasons. First, the most evocative elements found at the site, the wall paintings, moulded features and installations, have been shown to be temporally restricted motifs, rather than manifestations of a pervading symbolic code (§6.4.10; §6.4.11). Second, the ordering of elements and meanings attached to elements in ethnographically documented houses of the ‘micro-cosmos’ type is much more blurred and ambiguous than is usually apparent from structuralist interpretations (Ellen 1986, 25; Last 1998a, 362).

6.5.4 BUILDING CLASSIFICATIONS

Confronted with the spectacular moulded and painted imagery that he found in the buildings at Çatalhöyük, Mellaart argued that many of the buildings he excavated should be interpreted as shrines rather than houses (Mellaart 1967, 77-8). According to Mellaart these shrines could be recognised by the presence of a number of features such as “wall paintings of an elaborate nature, plaster reliefs, horns of cattle set into benches, rows of horn-pillars, the presence of cult statuettes, and human skulls set on the floors” (Mellaart 1967, 78). However, he also indicates that in practice the distinction between houses and shrines is often difficult to draw (*ibid.*).

In his publications Mellaart differentiates between houses and shrines, the latter are indicated as such in his writings and on the plans published, usually by adding a prefix ‘S’ to his building designations (for example S.VIB.8). In some levels the shrines distinguished by Mellaart constitute up to half of the buildings excavated in the 1960s (Mellaart 1967, 70). Faced with the logical dilemma that such a proportion of shrines seems unlikely, he formulated the hypothesis that he had excavated the ‘priestly quarter’ of the site, specialised in cultic activities. This hypothesis has become less plausible after the ÇRP excavations on the northern summit, where the ÇRP.1, ÇRP.3, and ÇRP.5 buildings have yielded considerable evidence for ritual activities (Hodder 1998b; Cessford in prep-c).

The distinction between shrines and houses drawn by Mellaart was found wanting by a number of scholars. Heinrich and Seidl argued that Mellaart did not rigorously apply his own criteria for distinguishing between the two, and that in many cases his interpretations were impressionistic rather than systematic (1969, 116). Similar critiques were put forward by members of the ÇRP. Hamilton (1996, 226) pointed to the fact that some buildings with a substantial number of figurines were not counted as shrines, whereas others with fewer figurines were. Ritchey made a systematic survey of all the buildings excavated by Mellaart, in order to explore the variability amongst them. A large range of architectural features was tabulated to measure the ‘complexity scale’ of the buildings excavated in the 1960s. From this survey it was concluded that: “the demarcation between ‘shrine’ and ‘non-shrine’ as proposed by Mellaart cannot be substantiated” (Ritchey 1996, 7). By contrast, it was argued that the buildings from Çatalhöyük should be interpreted primarily as houses with a ritual dimension, and that the buildings are all more or less equivalent in that respect (Hodder 1996a, 6).

Although the points raised by these authors are certainly valid, their critiques conflate a number of issues that should be dealt with separately. First, there is the issue of whether a clear distinction between houses and shrines can be drawn. Here it is essential to define a set of criteria and systematically process the evidence using those parameters. For instance, it is unfair to criticise Mellaart’s categorisation while using a completely different set of criteria, such as specifically focusing on figurines, or including all kinds of domestic features. In the case of Ritchey’s analysis it seems particularly strange to include a series of domestic features in the evaluation of the ritual dimensions of buildings. Furthermore, the conclusion that distinctions are blurry and difficult to draw does not in itself discredit Mellaart’s hypothesis that some buildings were specialised ritual loci. For instance, the sex of excavated skeletons is often difficult to establish, but nobody concludes on that basis that the male/female distinction was not valid in Prehistory.

An essential element in the evaluation of the house – shrine dichotomy at Çatalhöyük is a systematic re-analysis of the distribution of the features that led Mellaart to draw this distinction,

which were primarily the more elaborate wall paintings, moulded features, and installations. To date, this has only been attempted in my own research (Düring 2001; 2002), which is further expanded in the present study.

One of the issues that became clear in the course of this chapter is that it is necessary to study each type of feature distribution in isolation, in order to clarify its specific pattern of distribution. For instance, it has been suggested that wall paintings might have been present in most buildings at Çatalhöyük (§6.4.10), whereas moulded features and installations, and sub-floor burials seem to occur in a more restricted group of buildings, that can be estimated at approximately 20 % of the houses (§6.4.11; §6.4.12; Düring 2001; 2003).

From the study of the distribution of these features two conclusions can be drawn. First, different types of features may relate to different spheres of activities that come together in houses. For instance, wall paintings may have been part of the household domain and could probably be applied to the walls of any building. These were relatively ephemeral features that quickly got plastered over in the later occupation of these buildings. In terms of their distribution and ubiquity the wall paintings can be compared to features such as hearths, ovens and bins.

By contrast, the more durable moulded features and installations often show evidence for a more long lasting presence in houses, with multiple replastering and repainting episodes, and seem to have been concentrated in a minority of the buildings at Çatalhöyük. Finally, the sub-floor burials, that would not normally have been visible to the occupants and visitors of buildings, are also concentrated in a minority of the buildings.

These results indicate that some form of status differentiation did exist amongst the Çatalhöyük buildings, determining that some buildings were more appropriate for placing the dead and constructing moulded features and installations than others. This implies that buildings were not equivalent and homologous entities at the site, in which the same symbolic structures were played out in each building, as posited by the *domus* model, but that some forms of ritual behaviour did cluster in specific buildings. Consequently, Mellaart's idea that buildings can be classified into those that had a special ritual significance and those that did not, does seem to have an empirical basis. However, this differentiation was drawn by Mellaart on a somewhat impressionistic basis. Further, Mellaart ignored some of the features that most clearly differentiate such 'ritually elaborate buildings', in particular the sub-floor burials, while other features that seem less indicative for differentiation between buildings, such as the wall paintings, were included in his shrine criteria.

A second point that should be taken into consideration when discussing the house – shrine dichotomy concerns the concepts employed. 'Shrine' denotes a space exclusively used for religious purposes, yet the evidence from Çatalhöyük clearly suggests that all of the buildings were primarily domestic in nature. Certainly, there is no distinctive form of building or internal organisation of space peculiar to shrines. In this respect these buildings do not parallel the monumental complexes found at Aşıklı Höyük (§4.9.1), that diverge in size, building materials, and construction techniques from the domestic structures at that site. Thus, no distinction between sacred and profane buildings types exists at Çatalhöyük. Further, all buildings possess features such as hearths and ovens, which clearly define them as domestic locales. The investigations of the Çatalhöyük Research Project have demonstrated that the more elaborate buildings were used for domestic activities on the same regular basis as other buildings, including the frequency of replastering, which was related to the accretion of soot on the walls, which in turn resulted from the use of hearths and ovens (Matthews 2005; Farid in prep). In short, the idea that some buildings were primarily used for cultic purposes rather than for living in, as implied by the word shrine does not seem to be supported by the data.

The challenge posed by the Çatalhöyük evidence is to find an explanation that accommodates the existence of the differential distribution of features such as sub-floor burials and moulded features and installations, on the one hand, and the shrine-house continuum that is also apparent from the data, on the other. The major point in discussing the ritual differentiation of buildings at Çatalhöyük is that it makes no sense to classify them as either house or shrine. The

opposition between domestic and sacred, which does not allow for a combination of ritual and domestic elements, is essentially our opposition. Imposing this opposition on the buildings of the Central Anatolian Neolithic hampers a genuine understanding of that period. In this study it will be argued that we need to move away from the dichotomy in which ritual practices are spatially segregated from everyday activities, and come up with a model that addresses the continuum from 'plain buildings' to 'ritually elaborate buildings' that we find in the evidence.

The problem of why specific buildings seem to contain relatively large clusters of sub-floor burials or seem to be more appropriate for the construction of moulded features and installations, seems difficult to answer on the basis of a static perspective, in which buildings are classified and subsequently juxtaposed as distinctive groups. In the following section I will present the diachronic evidence from Çatalhöyük and argue that if we take a diachronic perspective many of the buildings at Çatalhöyük can be demonstrated to develop out of more or less ordinary structures into buildings with many ritual features over time (Düring 2005a; in prep).

6.6.1 BUILDINGS IN DIACHRONIC PERSPECTIVE

At Çatalhöyük we can combine the large-scale exposures of level VII to IV with diachronic evidence that allow us to study the development of individual buildings and neighbourhoods over a long developmental sequence. The following account of the diachronic development of a number of Çatalhöyük buildings focuses on the central part of the South Area, where a number of buildings can be traced from level V down to level VIII, and in some cases even further, to level X (see fig. 6.27).

We are dealing with a substantial depth here, both figuratively, in terms of time, and literally, in terms of deposits. If we take 60 years as an estimate of the average use-life of the buildings at Çatalhöyük (§6.2.6), the seven building levels represented in figure 6.27 represent a period of approximately 420 years! The vertical displacement of floors that occurred over the course of these seven building levels is 6.60 metres for building X.8 / ÇRP.18 and its successor V.6, and 7.57 metres for building IX.10 / ÇRP.17 and its successor V.3.²²¹ This is an impressive testimony to the building continuity of these structures.

This pronounced building continuity is similar to that documented in the deep sounding at Aşıklı Höyük (§4.6.1), and seems to be a characteristic element of the Central Anatolian Neolithic building traditions. It has sometimes been suggested that this building continuity was simply the result of a foundation practices, in which the walls of pre-existing structures were used as a foundation. To this it was added that the congested nature of the buildings would have made it more difficult to redevelop an existing configuration of the built environment (Mellaart 1967, 67). While these factors were certainly of importance for the form and location of buildings at Çatalhöyük, I have argued elsewhere (Düring 2005a) that the building continuity at this site cannot be reduced to functional parameters.

Here I will discuss three aspects of building continuity at Çatalhöyük that indicate that this practice was significant for Prehistoric people. The first issue deals with the variability in building continuity of the different structures in the South Area. Second, I will discuss continuities in the internal layout and embellishment of buildings that cannot be explained by functional parameters. Third, I will present the manner in which some buildings were transformed over time from normal buildings to highly elaborate structures. Before I commence this discussion I should add that this part of the discussion is mainly concerned with the early levels X to VI at Çatalhöyük, and that from level V to I, building practices at Çatalhöyük changed significantly, and these will be discussed later in this study.

The building continuity is not similar for all structures in the South Area. Some buildings can be traced over a number of building levels, but there are others that were more short-lived,

²²¹ Elevation differences for two other buildings are as follows: VIII.29→V.8: 5.31 m; building VIII.14→V.5: 5.31 m.

existing for one or two building levels, only to be abandoned afterwards. On this basis buildings can be classified into continuous and non-continuous structures.

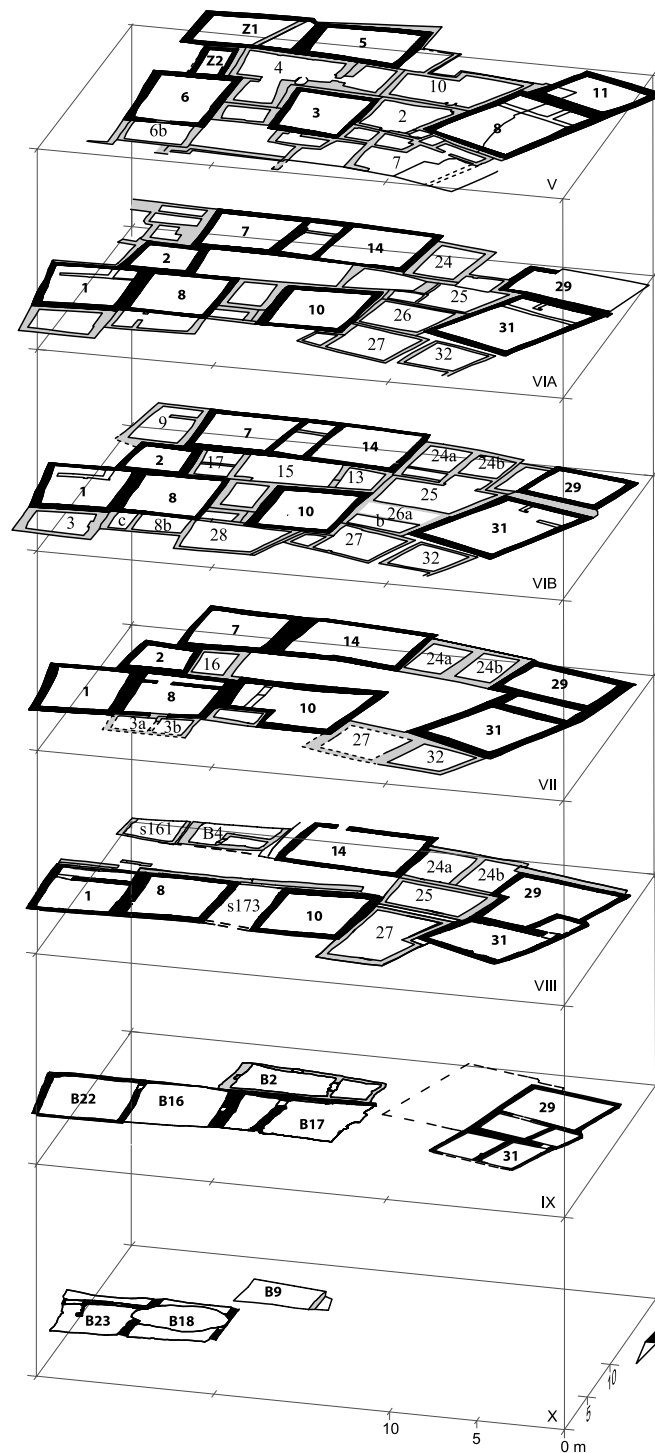


Figure 6.27: Diachronic view of the building sequence in the central part of the South Area from level X to V, continuous buildings marked with black walls, discontinuous buildings in grey.

Most of the non-continuous structures in the South Area neighbourhood are associated with the central midden area, and these are indicated in grey on figure 6.27. Onto the central midden, a range of buildings was inserted over time. These include: ÇRP.9 in level X; ÇRP.2 in level IX; building 25 in level VIII, ÇRP.2 in level VII; and a whole series of rooms in levels VIB, VIA, and V, when most of the previous midden area was built up. These buildings are often of unusual proportions and shape due to the fact that they had to be fitted into a pre-existing void in the texture of the settlement. What is interesting to note is that most of the non-continuous buildings were in use for a relatively short duration, and in many cases the locale of these buildings was reused as a midden in the subsequent building horizon.

The best-documented example of such a building is, without doubt, building ÇRP.2 of level IX, which has been excavated in recent years (Farid in prep). After its initial use as a domestic structure, as is evident from a variety of features including floors, ovens, bins, and compartments, this building ended up as an animal pen, and was used as such over a considerable period of time (Farid in prep). No burials were found within this building,²²² and it did not include any moulded features or installations.²²³ However, two geometric wall paintings were found in this structure on the east and north walls respectively. Both the facts that this building ended up as an animal pen and the absence of sub-floor burials seem to fit with the interpretation that it was a low status building.

The other non-continuous spaces likewise have few burials below their floors.²²⁴ In conclusion, it seems that the central midden area was considered an inauspicious site for constructing a building, which was used only as a last resort and was the first to be abandoned. The non-continuous buildings constructed in this location were probably low status buildings in comparison to those to the south and north.

The continuous buildings at Çatalhöyük, indicated in black on figure 6.27, can be contrasted in several respects with these discontinuous structures. Good examples of continuous buildings are 1, 8, 10, 29, and 31, that are present in all building levels, except where they have not been excavated at the lower end of the sequence, or where they were not preserved due to erosion at the upper end of the sequence. A first and obvious characteristic of these buildings is that they remain true to their location and dimensions over several phases of rebuilding, and over the course of the centuries.

A second characteristic in which these buildings differ from non-continuous buildings is that they were as a rule infilled with clean material upon abandonment, and that their sites were generally immediately redeveloped into new successor buildings (Farid in prep; Matthews in prep). In relation to the two mentioned characteristics it is possible to argue that many of these buildings were regarded not so much as novel structures, but rather as reincarnations of pre-existing buildings. Excavators talk about a seamless continuity from one building to the next, and how in many cases it is difficult to draw the separation (Regan 2004; Cessford in prep-c; Farid in prep). Whether or not this is the case, it is clear that the degree of building continuity at Çatalhöyük is exceptional when regarded in a cross-cultural context (Düring 2005a).

Some elements of the internal configuration of buildings and the embellishment of buildings at Çatalhöyük show continuities that cannot be related to foundation practices or other functional requirements. In general, buildings at Çatalhöyük seem to be continually redeveloped during their occupation in the course of which the compartmentalisation of space may alter, or features may shift from one location to the next (§6.2.5; Cessford in prep-c; Farid in prep). Buildings at

²²² The eastern ante room of this building, space 116, has yet to be excavated, and in theory there could be burials below the floor of that room.

²²³ Mention is made however of a 'wall defacement' on the west wall near to which an aurochs horn was found, and hypothetically this could have been a moulded feature (Farid in prep).

²²⁴ There are three burials below VIII.25; five below VIB.2; and one beneath VIB.17. There are three burials below VIII.25; five below VIB.2; and one beneath VIB.17.

Çatalhöyük do not have the fixed organisation of features that was discussed earlier for Aşıklı Höyük (§4.6.1). On the other hand, in most cases the organisation of space does not change radically in the course of the use-life of a building. Hearths will generally remain in the south, the clean compartments in the northeast, etc. Some of these elements show a remarkable consistency over time. For example, internal division walls tend to recur in the same location over many phases of the redevelopment of a building. The internal division walls of building 31 and 8 in figure 6.27 show this tendency to recur. Another building where this can be observed is building 9, which had a division wall in the north. During the 2004 excavation of this building, in which I participated (Düring 2005b), I observed that the level VIII and VII division walls were separated by packing deposits of some 50 centimetres, but were nonetheless placed in the same location. Thus the level VII wall was not put in this location because of foundation requirements. Such continuities in the placement of internal division walls and the compartmentalisation of space can be observed in most buildings at the site (Farid in prep). While it could be argued that these spatial configurations were simply the outcome of cultural preferences (for instance a preference to have a storage room to the north), what is remarkable is that walls and compartments tend to recur in exactly, rather than approximately, the same location.

While there is room for scepticism in relation to this argument there are more specific continuities at Çatalhöyük that seem to corroborate this argument. In the previous sections I have shown that both painted and moulded motifs tend to recur in the same buildings in different levels (§6.4.10; §6.4.11). To recapitulate: first, buildings VII.8 and VI.8 both contained stylised hands and honeycomb motifs; second, buildings VII.1 and VI.1 both had ‘kilim’ type paintings; third, buildings VIII.8 and VII.8 both had ‘vulture scene’ paintings; fourth, buildings VII.44 and VI.44 both had juxtaposed leopard moulding on their north walls; and fifth, two large animals in deep relief occur on the north wall of buildings VII.8 and VI.8, with a painted precursor in building IX.8.

From these examples it appears that at least in some cases people seem to have been reconstructing houses not only in the same location, on the same scale, and with the same internal configuration and orientation of elements, but that they were recreating specific types of imagery that had been associated with a predecessor structure. From this it would appear that buildings might have some form of identity that was appreciated and reproduced. I would not argue, however, that specific buildings owned particular motifs, given that most motifs occur in various buildings dispersed across the neighbourhood, and were in fashion only for a short period before they were replaced by others (§6.4.10; §6.4.11). Thus the distribution of imagery is more temporal than building related. Nonetheless it seems that some buildings were associated more with such imagery than others, while the content of that imagery changed over time. One such building where we have particularly good evidence for such a situation is building 8, and I will discuss this building in more detail. In doing so I will follow Mellaart’s description but will indicate where positive evidence is lacking (npe).

Building 8 was first constructed in level X upon an area earlier used as a midden. In building X.8 / ÇRP.18 a geometric wall painting was found by Mellaart (npe). In the ÇRP excavations of this building a neonate burial was found, a series of six ovens, and evidence for bead production and obsidian knapping. In the excavation report it is described as being ‘relatively plain’ and ‘lacking symbolic and architectural elaboration’ (Farid in prep).

In the successor building IX.8/ÇRP.16 another geometric painting was found (npe), as well as a black animal painted in profile on the north wall and often interpreted as a bull (Mellaart 1964, pl. 14-b). No burials related to this building were found either by Mellaart or in the new excavations.

Burials were similarly lacking in the subsequent level VIII building, in which a geometric painting was found (npe) beneath a superimposed ‘vulture scene’ showing two juxtaposed large birds flanking two possible human figures depicted on a much smaller scale (Mellaart 1964, pl. 14-a; npe).

It is in levels VII and VIB/A that building 8 became a truly elaborate building. The level VII building contained a moderate amount of 6 interred individuals, and a scar in the compartment ledge that suggests a horned pillar was placed in this building (npe). On the walls of the building a variety of painted and moulded features were found. The earliest feature was a very large painting in the ‘vulture’ category, showing a number of large birds seemingly attacking small headless humanoid figures. Subsequently a geometric painting was painted on the walls, which consists of rows of abstract hands and honeycomb motives. At a later point in time a large animal figure in profile, possibly a bovid, was cut through the plaster layers of the north wall, partially destroying the earlier vulture painting in the process. This was then painted black.

Many of the motifs of the level VII building reoccur in the subsequent level VIB/A building, which is undoubtedly one of the most elaborate buildings excavated at Çatalhöyük. In this building no less than 29 individuals were interred. In the room itself there seem to have been a number of horned pillars (npe). On the west wall a moulded headless ‘splayed figure’ was found along with two features that might have been moulded animal heads (Mellaart 1967, pl. 26). On the north wall a red painted animal in deep relief, possibly a bovid, was found, that closely resembles the one found in level VII. On the east wall three large and one small moulded animal heads had been applied (npe). These heads bore traces of multiple painting episodes during which geometric patterns were applied. Below the large animal heads a series of superimposed geometric paintings of abstracted rows of hands in combination with geometric honeycomb motifs were found. Over these paintings a series of plaster protrusions containing animal skeletal elements were found.

Finally, the level V building that succeeded this elaborate level VI building did not have any wall painting, moulded feature or installation, nor sub-floor burials associated with it.

From the above description three conclusions can be drawn. First of all, it is clear that in multiple instances the same motifs resurface in building 8 through its various phases of existence. Moreover, in many instances these motifs were applied to the same walls as in the previous buildings. Thus it would appear that people were referring back to earlier buildings by the usage of particular motifs and their placement on a particular wall. Building continuity, it seems, was more than only a practice of foundation, and was meaningful to people associated with these buildings (Düring 2005a; Matthews in prep). This idea can be given additional support if we accept a recently proposed link between lineages and buildings at the site. It has been argued that the houses at Çatalhöyük acted as sites in which social memories were constructed, and that skulls of particular individuals buried below house floors were removed and possibly incorporated into the successor building (§6.4.12; Hodder and Cessford 2004, 35; Hodder in prep).

A second conclusion that can be drawn from the development of building 8 from level X to V is that it developed from an inconspicuous domestic structure described as ‘lacking symbolic and architectural elaboration’ to one that was extremely elaborate in a gradual manner.

motif	X	IX	VIII	VII	VI	V
‘geometric’	N/E				E	
‘bovid’		N		N	N	
‘vulture’			E	E/N		
‘hands and honeycomb’				N/W	E	
Horn pillar				1?	4?	
Animal heads					W&E?	
Clay protrusions					E	
‘splayed figure’					W	

Table 6.6: Occurrence of painted and moulded motifs and installations in building 8 from level X to V, orientations indicated.

Third, given this development, it is all the more remarkable that after level VIB/A the building was no longer an elaborate building (see table 6.6). The level VIB/A building was carefully sealed: all the walls were given a final plaster coating, a group of objects was placed on the floor, and the building was filled with clean material (Mellaart 1963, 61). On this foundation a non-elaborate level V structure (V.6) that lacked paintings, mouldings and burials was built. I will discuss a possible explanation for this break in place-making activities below.

The development of building 8 from an inconspicuous building to an elaborate one is not exceptional. There are many buildings in the South Area that follow similar trajectories of development, and I will proceed to discuss the relations between building status and 'building pedigree' on a more general level. The interesting pattern that we can observe at Çatalhöyük for continuous buildings is an increase of their ritual elaborateness over time.

Put simply we can follow buildings that started out as more or less average domestic units, and see how they gradually became invested with symbolism. This can be done by tabulating the occurrence and frequency of mouldings, wall paintings and burials, features that were probably connected to ritual activities (see fig. 6.28). In this manner we can note a clear increase in ritual features both within specific categories of features and with regard to the range of features present. For instance, most buildings have either no or only a few burials in level VIII, but these numbers rise dramatically in later levels for most buildings. Second, we can see that the diversity of ritual features present in buildings becomes greater over time. In level VIII many buildings contained only a single type of ritual feature, but by levels VII and VI most of them contained the full set of features (Düring 2005a).

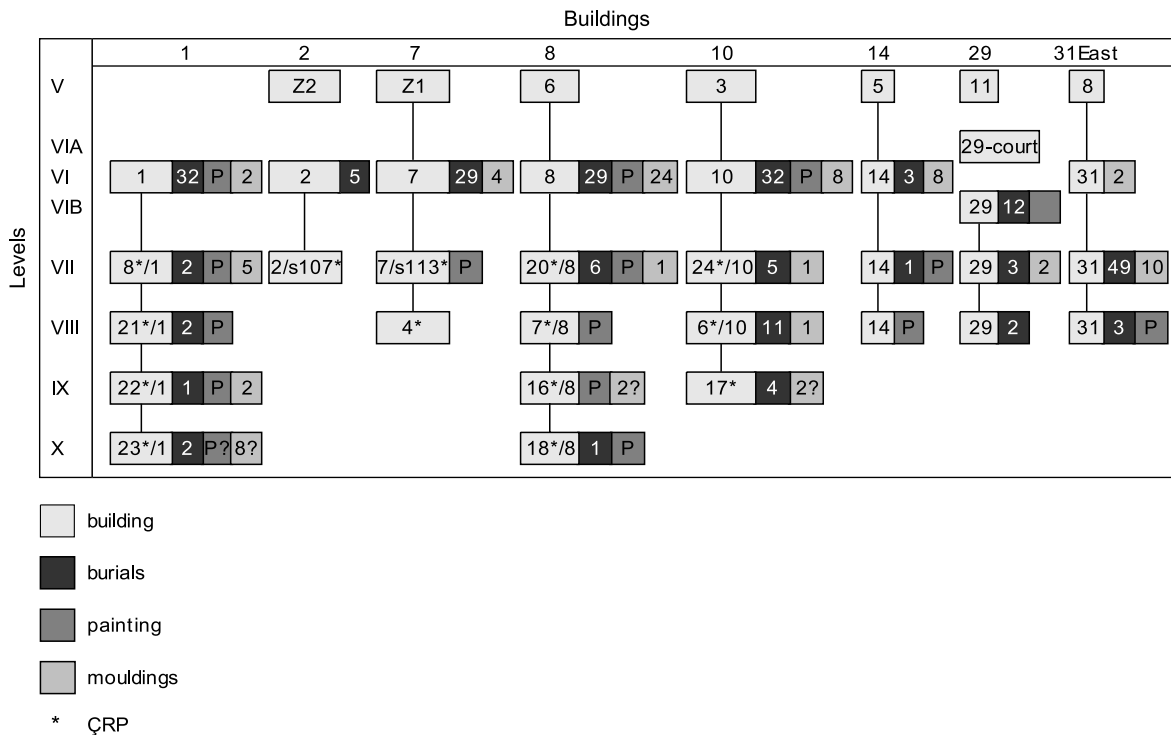


Figure 6.28: Overview of the development of continuous Çatalhöyük buildings in the South Area and the number of burials, mouldings, and wall paintings they contain, Çatalhöyük Research Project building designations are distinguished with an asterisk.

Comparing the non-continuous buildings with the continuous buildings it is clear that these buildings generally contained fewer burials and mouldings then the continuous ones. Thus the differential distribution of burials, moulded features and installations noted earlier (§6.5.4), that has been interpreted as a differentiation in building statuses, could be a function of building pedigrees, that is, the circumstances of the houses' origins (the mythical identity of the founders of the house, and the relation to pre-existing houses), and their trajectory of development.

This argument has two weak points. First, it could be argued that the number of wall paintings and mouldings are too limited for us to base much upon their distribution. Their distribution could be partially related to matters of preservation. For instance, continuous buildings are immediately filled upon abandonment and rebuilt (§6.2.3), and this practise would have helped to better preserve wall paintings, moulded features and installations in these buildings. Moreover, in some buildings, such as those of level V, most of the walls are lost due to erosion. Second, figure 6.28 conflates a number of different features, and it has been argued earlier that these may relate to different sets of activities (§6.4.9).

To overcome these problems I will focus exclusively on the sub-floor burials to assess the manner in which building status is related to building pedigree. Burials are much more common than the imagery, and are much less affected by differential preservation resulting from erosion or practices of building abandonment.

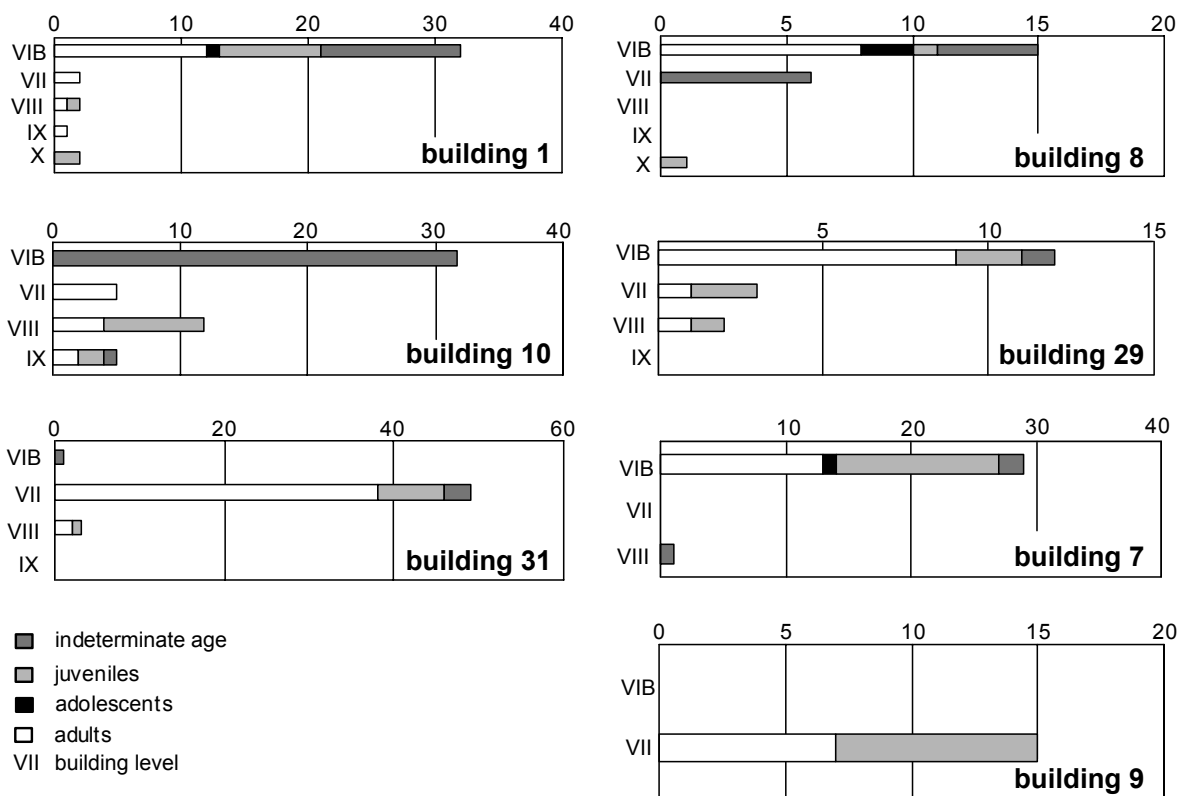


Figure 6.29: Sub-floor burials in continuous Çatalhöyük buildings by level.

In figure 6.29 I have represented a number of continuous buildings that we can trace over longer periods of time at Çatalhöyük. What we can note with regard to the burials found beneath the floors of these buildings is that there is a clear relationship between building pedigree on the one hand, that is whether they are buildings of good standing as reflected in proper dimensions, location, and a long occupation sequence, and the number of burials that were interred beneath

their floors on the other. The pattern that we see in figure 6.29 is remarkably consistent, with initially limited numbers of burials in these buildings, often predominantly young juveniles, and over time an increase in burial populations, which come to incorporate all age categories.²²⁵

It is important to emphasise that the increase in building status argued here is not a mechanical process, but is influenced by a range of factors, only one of which is constituted by the building pedigree. First, the people allied to individual buildings were not all equally successful in promoting the status of the building with which they were associated. There is a substantial difference between buildings such as 1, 10, 29 and 31, with over 25 burials in their 'prime', and other buildings such as 29, with no more than 12 burials per level. To heighten this contrast I can mention two buildings, 24 and 27, that existed through levels VIII – VIB, and must be counted amongst the continuous buildings, yet did not contain a single burial in any phase of their existence.

Second, I would like to point to the cases of buildings 9 and 31 (see fig. 6.29). Both of these buildings contained a substantial amount of burials in level VII (15 and 49 respectively, the burial population of VII.31 is the highest of the buildings excavated in the 1960s) but their level VIB successors were almost completely devoid of burials. The reasons why these buildings were no longer appropriate locales for burial practices is beyond us, but these examples serve to demonstrate that it was the interplay between building pedigree and the social strategies of people associated with buildings that was important.

The configuration of buildings at Çatalhöyük, in which there is a certain amount of status differentiation between buildings, and in which members of low status houses may ally themselves with high status houses and form house groups, is difficult to comprehend on a synchronic scale, and it is from a diachronic perspective that these buildings start to make sense.

In earlier articles I have argued that the trajectories of development of continuous buildings over time at Çatalhöyük, in which they were transformed from inconspicuous buildings to buildings with a great ritual significance, can be best understood in the context of the house concept proposed by Lévi-Strauss (§2.4.4; Düring 2005a; Düring in prep). The situation described by Lévi-Strauss (1983; 1984; 1991) is one in which people define themselves in relation to specific high status houses to which they can claim membership, to which I will refer as 'lineage houses'. These houses are named entities that legitimate their domination of other lesser status houses by a claim of precedence and continuity. One aspect often ignored when those houses are discussed is that houses tend to form hierarchical systems in which wealth, status and prestige are concentrated in a few high status houses. These lineage houses serve as a focal point to a group of people beyond the household group normally residing in them. Many of the rituals relating to this larger group of people will be centred on the lineage houses and may leave a material residue that could inform us on these practices.

It is important to emphasise that inter-house relations and building statuses are not fixed constellations but may change as a result of social strategies and contingencies (Waterson 2000, 179). It is essential to monitor the temporal dimension of these relations and study the changes in relations between houses over time. In many ethnographies a relation can be demonstrated between the 'pedigree' of a building on the one hand, and the status of a building, as an expression of the role of that building in social events, on the other (Waterson 1990, 142; Gillespie 2000b, 9-11; Kirch 2000; Waterson 2003). On the basis of these studies it is clear that a building can increase in status only over the course of time.

The processes whereby this transformation takes place should not be construed as a type of historical determinism: the trajectories of individual buildings are shaped to a large degree by contingent factors and the strategies pursued by people associated with houses. Nonetheless, the

²²⁵ The zero values at the bottom of the individual graphs in figure 4 might be deceptive in that in some cases sub-floor deposits may not have been excavated. However, in my view the overall pattern would survive even if these initial values would be modified somewhat.

pedigree of a building is an essential component in a system where building status and ancestry are intertwined, creating a situation in which a shared awareness of building histories may allow for a certain amount of manipulation of the past, but in which the past cannot be rewritten at will. The house as Lévi-Strauss envisaged it, is the arena in which the social competition of groups of people centred on houses is played out. This process occurs within the constraints of the existing configuration of relations between houses. House members will try to attach new members to their house and will try to enhance the status of their lineage house, and one essential ingredient in this process is the pedigree of the house. This temporal dimension to the articulation of houses is of great importance for archaeological analysis because we are in a unique position to study this kind of diachronic transformation.

These characteristics of lineage houses, that are based on a range of case studies around the globe, and which are well attested in the literature (Lévi-Strauss 1983; 1984; Waterson 1990; Carsten and Hugh-Jones eds 1995; Joyce and Gillespie eds 2000; Sparkes and Howell 2003; Beck ed. in prep), seem to fit with the evidence at Çatalhöyük.²²⁶ On the basis of these parallels it is possible to understand the more elaborate buildings at Çatalhöyük that contain many sub-floor burials as lineage houses: buildings that were important for a supra-household social collectivity encompassing a number of households.

This perspective explains in what manner common houses were transformed into high status lineage houses over time. Furthermore, the house concept makes it possible to consider the processes that lie underneath this transformation, namely the social strategies of individuals and social groups working toward their own advancement with varying degrees of success. The importance of these strategies is reflected, for instance, in the fact that not every building follows an ideal 'career' and ends up as a lineage house, and also by the circumstance in which in some cases houses decrease in importance, as was the case with building VII.31. It is with regard to understanding how houses came to be, and how they are affected by factors related to agency and contingency, that a diachronic view is of key importance. Thus the interplay between agency and structure (Bourdieu 1977; Giddens 1984) is of key importance for understanding the building practices at Çatalhöyük. In this light the fact that a clear-cut distinction between buildings of different status cannot be drawn, should be seen rather as an important clue as to how the status differentiation of buildings was negotiated in a complex and changing configuration of building relations, than as a problem of classification.

A third conclusion that can be drawn from the development of building 8 and the other buildings in the South Area, is the complete absence of ritual features in level V (see fig. 6.28). This can be interpreted as a reconfiguration of traditions in the place-making activities at Çatalhöyük in which building biographies were no longer considered relevant for ritual activities (Düring 2001). The absence of ritual elaboration in the level V successors of the buildings under consideration cannot simply be explained by referring to the eroded conditions of the level V architecture, because the erosion would have left the sub-floor burials unaffected. Burials are, however, completely absent from all the continuous buildings under consideration in level V. While such reversals of building status happened in earlier levels for some isolated buildings, the cases of buildings 9 and 31 have been mentioned, the wholesale absence of burials in the level V successors to continuous buildings marks a more pronounced development.

A major shift seems to have occurred at Çatalhöyük in the transition from level VI to V at the site, although the break may not be as sharp as initially suggested (Düring 2001; 2002). These changes are occurring in lithic industries (Conolly 1999b), figurine typology and gender (Hamilton 1996, 225; Voigt 2000, 287), and ceramic traditions (Mellaart 1966, 170; Last 1996, 118). Earlier in this chapter I have shown that the wall paintings motifs of the upper levels V-I of Çatalhöyük diverge from those of levels X-VI (§6.4.10; Mellaart 1967, table 13; Voigt 2000, 287), that

²²⁶ By contrast the concept does not suit the data from Aşıklı Höyük, as has been argued earlier (§4.6.1; Düring 2005a).

moulded features and installations do not seem to occur after level VI, with the possible exception of horned pillars that may persist into level V (§6.4.11; Todd 1976, 50), and that posts are increasingly replaced by buttresses after level VI (§6.4.8).



Figure 6.30: An overlay of levels VI and V in Area E.

The most prominent shift seems to occur in building practices at the site, however. Whereas until level V the majority of buildings were constructed in the same place, orientation and scale as their predecessor, this marked building continuity was abandoned from level V onwards (Düring 2001). There is no doubt that remains of previous level VI buildings were present and visible at that time, as implied by the partial use of some walls for the foundation of level V buildings, but as a

rule buildings are no longer replicated after abandonment, and consequently there must have been a series of conscious decisions not to adhere to the older traditions of building continuity and to build houses in a less precedented fashion.²²⁷ Many buildings disregarded the orientation and scale of earlier structures (see fig. 6.30). It seems as if the buildings, and the continuity with the past that they represented, were not important anymore in the way they had been before. After level V, building continuity remains relatively unimportant, compared to the earlier levels (Düring 2001).

This abandonment of building continuity as meaningful practice, as opposed to a foundation strategy, can be related to the loss of that continuity as a factor determining which buildings were most appropriate as burial locales. After level VI burials continued to be clustered in a selection of buildings, but these were not necessarily those with the most pronounced building pedigree. For instance, in level V, that has a total of 55 rooms, 5 rooms contained burials. These were V.4 (1 burial), V.17 (1 burial), V.75 (2 burials), V.10w (9 burials), and F.V.1 (33 burials). As far as these buildings can be traced diachronically many seem to belong to the class of transient buildings associated with the former central court area (see fig. 6.27), rather than being the successor of the continuous buildings.

Simultaneously the upper levels V-I are marked by the abandonment of the clustered neighbourhoods that had been so characteristic for levels X-VI at Çatalhöyük, and the earlier sites Aşıklı Höyük and Canhasan III. From level IV onwards, doors to exterior spaces appear at Çatalhöyük, and streets and alleys also appear (Düring 2001). These configurational changes will be discussed more extensively later in this chapter (§6.9.1).

A final issue that I want to discuss in relation to the marked building continuity of the early levels is what this can tell us about the relations of residents to the buildings that they inhabited. I would argue that the relation between buildings and people was probably not established at the household level. If that were the case we would expect dynamic cycles of waxing and waning of each individual building along with the prosperity and decline of the household group inhabiting it. Instead buildings remain almost the same over the course of several centuries. Given these characteristics the buildings of the Central Anatolian Neolithic may have been used in other ways.

One model that could be more useful is one in which several houses were owned by a social collectivity encompassing a number of households, and to which I will refer as 'lineages', that distribute houses to their members according to the changing needs and statuses. One case study of such a system has already been mentioned for the Dogon (§2.4.3; Lane 1994). To recapitulate that particular example, some of the buildings are inhabited by several young men, others by families or widowed women with their children. If the status of a Dogon changes, he or she will generally move to another building owned by the lineage. The essential point here is not that different types of households were connected to specific buildings, but that people were periodically relocated across buildings by the lineage in accordance with their changing needs and statuses. Similar principles could have operated in the distribution of houses amongst neighbourhood residents at Çatalhöyük.

If such an arrangement of the distribution of houses existed at Çatalhöyük this might explain how it is possible that buildings retain their characteristics over the centuries. In such a system there is no need to modify or change individual buildings. Instead, the specific uses of buildings may have been tied up with their form and inventories and may have reinforced the identity of their inhabitants (§4.6.1; Matthews in prep). The prime mode of competition amongst members of the

²²⁷ With regard to this break in continuity it is important to scrutinise the stratigraphical data concerning the level VIA – V transition. Mellaart mentions that a part of the level VIA was destroyed by a 'great conflagration' (Mellaart 1963, 44, 54, 59; 1964, 85-6). It seems that after the end of level VIA the area did not remain unoccupied for a long period. When comparing levels VIA and V it is clear that despite the small overall building continuity a number of buildings are built directly on top of the remains of older buildings (for instance level V buildings 2, 3, 8, and 12). In conclusion, at the time level that V buildings were constructed, those of level VIA must have been physically present.

lineages may have been related to obtaining and exploiting a building of proper pedigree, rather than in modifying an existing structure.

The shift in building practices in the upper levels V-I at Çatalhöyük would then imply that a shift took place from a situation in which households were constituent elements of the neighbourhood community to one in which households were the primary basis of society. No longer would buildings have been owned by a collective group, but now they became linked to the fortunes of the individual households inhabiting, and probably owning, these houses. This does not imply that other scales of social life were no longer important. In this respect, I have already mentioned the differential distribution of burials in level V houses. The relation of households to their houses changed, however. The appropriate houses for placing the dead in the upper levels were no longer buildings of proper pedigree, but may simply have been the residence of the most important member of the lineage. Thus, houses and house pedigrees were no longer important in the way they had been before, and the meaning attached formerly to houses may have been transferred to people.

6.7.1 NEIGHBOURHOODS

Estimating the size and constitution of the clustered neighbourhoods at Çatalhöyük is a problematic exercise. This is the result of the research methods that have been applied to Çatalhöyük but it is also related in part to the nature of the archaeological deposits. Mellaart excavated large areas, but was not interested in defining the extent of the neighbourhoods he was investigating. Thus his exposures were largely determined by expediency factors: in what areas he could most easily expose buildings, rather than by questions directed at the spatial layout of the settlement. The surface scrape performed by the ÇRP on the summit and the east slope of the northern mound exposes a much larger area, but here the problem is that the temporal resolution of the plan is very poor.

Nonetheless, the existing data will be evaluated in order to estimate the possible size and constitution of the Çatalhöyük neighbourhoods because such an assessment is crucial for our understanding of the site. It is emphasised that such an estimate is tentative. The figures of Çatalhöyük neighbourhoods that are common in the literature encompass between 20 and 30 buildings (Düring 2001, 16; Matthews in prep).

The most complete exposure in the South Area is that of level VIB.²²⁸ Given the problematic nature of stratigraphies in loam-built settlements (§3.5.1) it is likely that the level VIB plan may not represent a situation that occurred in actual history, in that it is difficult to ascertain whether all of these buildings were in use contemporaneously. However, the plan seems coherent and does seem to be representative of what the settlement could have looked like. Furthermore, considering the fact that buildings at Çatalhöyük tend to replicate each other in the early levels, it does not matter so much for the overall plan if particular buildings are out of phase (§4.7.1).

Although the level VIB exposure is extremely large by the standards of Near Eastern archaeology, it does not include a complete bounded neighbourhood (see fig. 6.31). What does seem to be apparent is that buildings in former Area A, with buildings VIB.61, VIB.63 and VIB.65, are separated from the main Area E by an open space. It seems likely at present that the buildings in Area A might have been part of a different neighbourhood than those in Area E, but this hypothesis is in need of further investigation.

To the north and south the Area E buildings of level VIB are bounded by large open areas and these could potentially have constituted the edges of the neighbourhood. However, it is equally possible that these open spaces were internal to the clustered neighbourhood, in which case the

²²⁸ I have already discussed the problematic nature of the level VIB/VIA division, and I have some reservations about the VIA plan, which does not seem to constitute a stratigraphically coherent unit (§6.1.8).

neighbourhood would have been much larger.²²⁹ To the east the extent of excavation was determined by the increasing body of the overlying mound, due to which level VIB was not excavated in this area. To the west the extent of the excavation was determined by the erosion of the mound, which has removed parts of building VIB.35, VIB.36, and VIB.25-west. Thus, the level VIB neighbourhood cannot be delineated with any certainty in any direction.



Figure 6.31: Plan of level VIB in the South Area with bold lines indicating possible neighbourhood boundaries, and the topographical setting of the level VIB exposure indicated.

²²⁹ In his reconstruction of level VIB, Mellaart (1966, fig. 5) represent the southern open area as an internal one included in the neighbourhood, but his reconstruction of building VIB.37/38/39 must be considered as somewhat hypothetical.

Nonetheless, we can estimate a minimum size of the neighbourhood represented in Area E of figure 6.31. This includes a total of some 93 rooms, which can be assigned to approximately 36 building units. Thirty living rooms are present in Area E. If we take these living rooms as indexes for household groups, this would mean that this particular neighbourhood at Çatalhöyük would have encompassed at least thirty households. Earlier in this chapter the size of these households has been estimated at about five people (§6.5.2), and this would put the neighbourhood population at minimally 150 people.

We do not need to conceive of the Çatalhöyük neighbourhoods as necessarily comprising a standardised entity, with a circumscribed group of people living in a circumscribed number of buildings. The sizes of the neighbourhoods may have varied considerably, but it is likely that there was an upper limit to their size. It is plausible that neighbourhoods depended heavily on personal contacts between members, and this can only be achieved if group sizes do not become larger than about 250 people (§9.3.3). Further, the 150 plus population of the level VIB Area E neighbourhood seems to fit well with the estimate made earlier for the Aşıklı Höyük neighbourhoods as ranging between 108 and 180 people (§4.7.1).

The households that were part of these neighbourhoods probably had a dual allegiance. On the one hand, they were part of the larger neighbourhood community, and it is argued that the physical organisation of the settlement, the regular contact through activities and locomotion across the roofscape, and the restricted sizes of neighbourhood groups would have ensured, that the neighbourhood was a real phenomenon for people living in them.

On the other hand, and in this respect the neighbourhood at Çatalhöyük differ from those at Aşıklı Höyük, houses within the neighbourhood were differentiated in status. It is argued that the lineage houses were the central focus of a community encompassing numerous households, but smaller than the neighbourhood community as a whole. In the level VI Area E neighbourhood that has been discussed, there are four rooms with over 25 sub-floor burials. Each of these spaces would probably have been of central importance to a group of households, and these groups need not have been mutually exclusive. Nonetheless, it can be argued that the households would have associated themselves with a high status lineage houses, forming house groups of about seven households. This number fits well with ethnographic studies that suggest that it is advantageous for farmers to form household groups for economic cooperation of approximately this size (Plog 1990, 190; Halstead 1999; Kuijt 2000). From the evidence we have it would appear that at Çatalhöyük each neighbourhood would have harboured no more than five to six house groups, and this would have enabled the neighbourhood to take decisions on the basis of consensus (Johnson 1982, 392-3).

The relations between the house groups and the neighbourhood community are difficult to model. It cannot be determined, for instance, whether houses in the neighbourhood would have been owned by the neighbourhood community as a whole, or by the individual house groups. Nonetheless, the continued predominance of the clustered neighbourhood throughout the early part of the Çatalhöyük sequence suggests that the neighbourhood community was of key significance to the functioning of society at Çatalhöyük.

It could be argued that the concept of the clustered neighbourhoods of 30+ households cannot be really substantiated in the South Area at Çatalhöyük, where we cannot outline clearly bounded neighbourhoods in any of the building levels. Thus, there could be scope for an argument in which the settlement was not divided into neighbourhoods, albeit buildings in some areas would have formed denser clusters than elsewhere. To approach this issue we will now turn to the northern eminence of Çatalhöyük, where a scrape survey performed from 1993 to 1995, and a more recent one undertaken in 2004, can be combined into a large plan (see fig. 6.32).

The problematic nature of the information obtained in these surface scrape campaigns has already been indicated (§6.1.10), and it is clear that the plan represents a palimpsest situation, and is generally unintelligible on the sloping parts of the mound (see eastern section fig. 6.32).

Nonetheless, the scrape plan does provide an important source of information on the organisation of space at the level of the neighbourhood. What is evident from figure 6.32 is that this part of the settlement was divided by ongoing open spaces into a number of neighbourhoods, which would suggest that the Çatalhöyük settlement was indeed divided into clustered neighbourhoods.

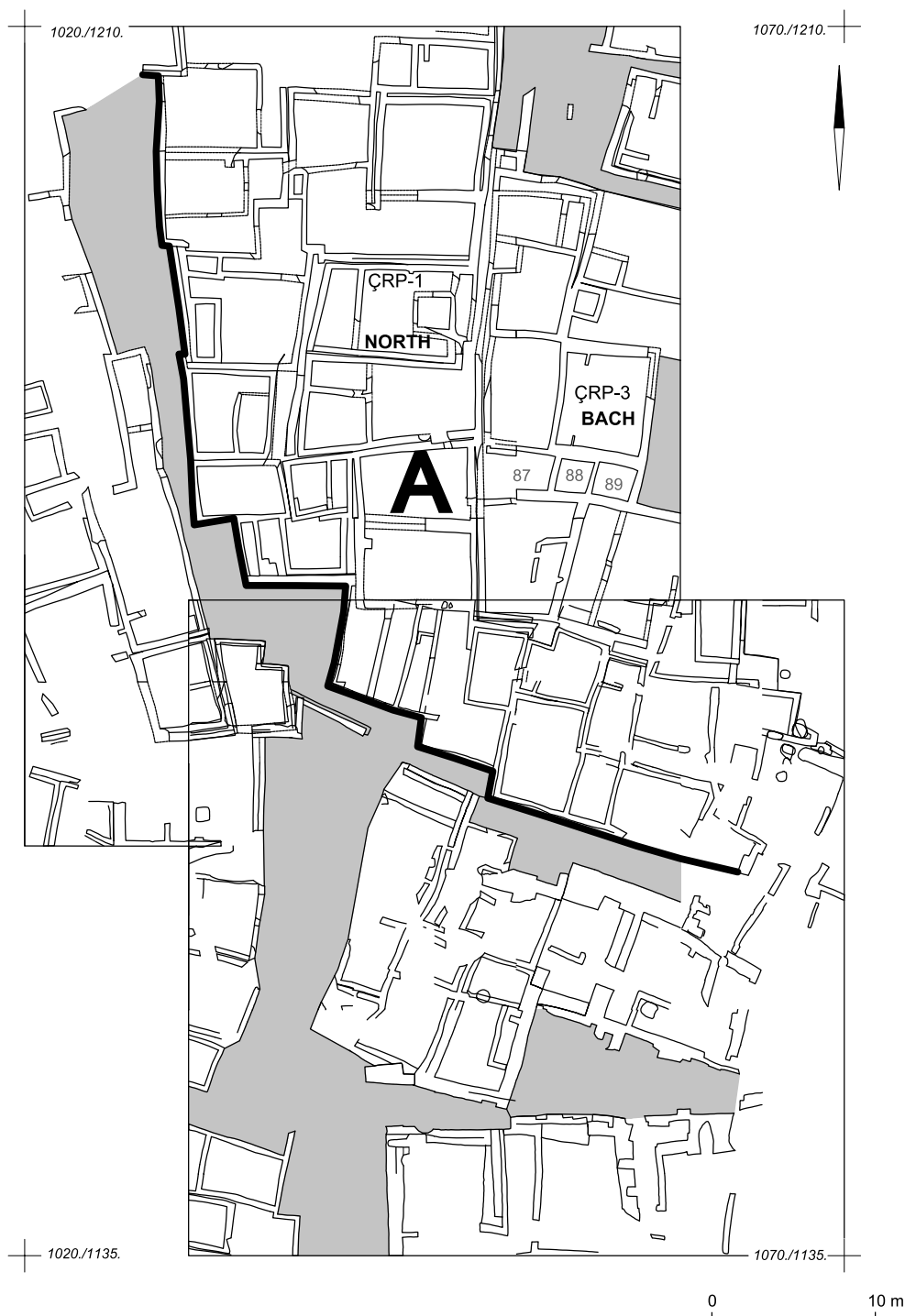


Figure 6.32: Plan of the Neolithic buildings on the northern eminence at Çatalhöyük found with surface scraping, and including the North, BACH and 4040 Areas. Open spaces indicated in grey, and a possible neighbourhood boundary with a bold line.

Especially clear in this regard is a linear open space running from the northwest to the southeast, and separating off 'neighbourhood A' to the northeast. The building remains in other parts of the plan are more ambiguous and clear neighbourhoods cannot be determined in those areas. The northwest of the plan does seem to represent a coherent group of buildings that could represent a Neolithic cluster of buildings, although undoubtedly excavation would modify the plan considerably and reveal that the buildings represented date to different levels. However, assuming for the moment that the plan does represent a situation that could have occurred in the Neolithic, neighbourhood A seems to have encompassed at least 80 rooms and 20 building units, and this could point to a neighbourhood similar in scale to the VIB neighbourhood discussed above.

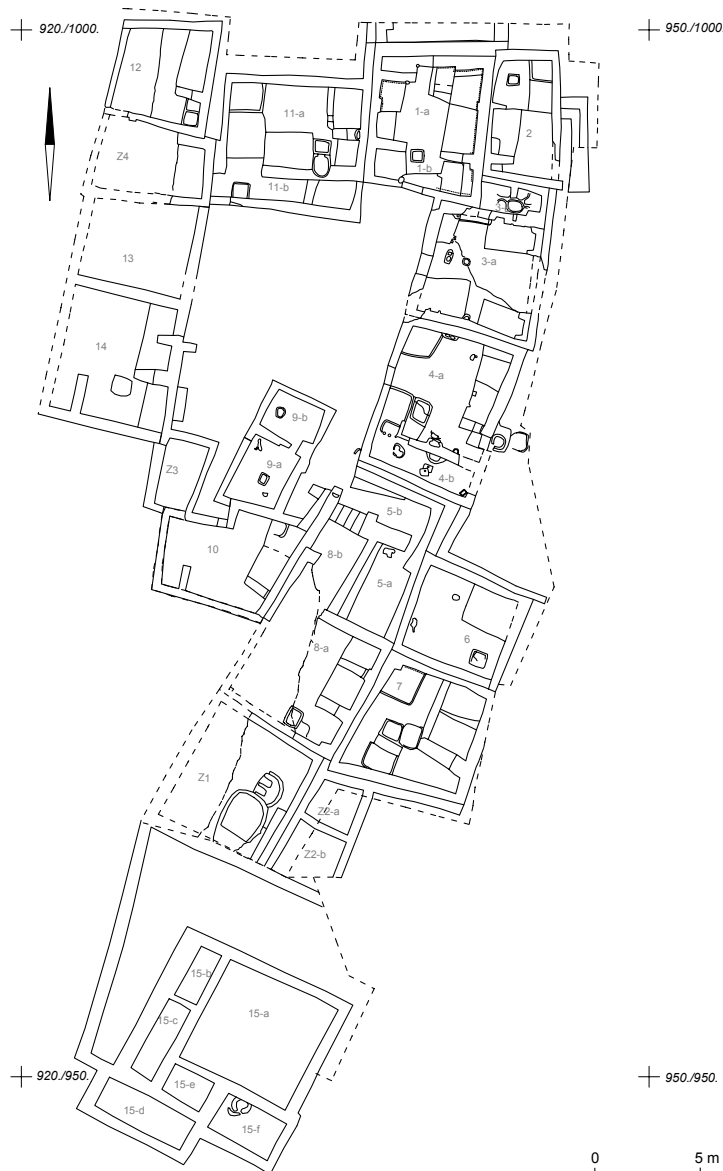


Figure 6.33: Plan of level IV in the South Area at Çatalhöyük.

Most efforts to date this part of the scrape area, on the basis of ceramic and flint typology and radiocarbon dates, have pointed to a level VI date for this north-eastern part of the scrape area (§6.1.8). By contrast, the buildings in the southwestern part of the surface scrape, in the 4040 Area,

represent a much more confusing palimpsest situation, with buildings dating to between level VI and III (Farid in prep).

In the upper levels V-I in the South Area the manner in which neighbourhoods were constituted may have changed. The fact that the building continuity that had been characteristic in the earlier periods was abandoned (§6.6.1), and buildings were not constructed in reference to earlier structures any longer, probably means that residence and group membership were no longer as tightly interwoven as they had been before. Furthermore, open spaces seem to take on a more prominent role in the upper levels at Çatalhöyük, in which houses often seem to be grouped around large open areas, and buildings can be more easily reached via open areas, and in some cases doors. This pattern is especially clear in level IV and V, in which buildings were grouped around a central courtyard (see fig. 6.33).

It is impossible to determine at present whether the settlement at Çatalhöyük in the upper levels was also subdivided into a number of neighbourhoods by elongated open spaces of the type encountered in the scrape area, or whether buildings were simply grouped around communal open spaces. This issue can only be resolved through future investigations.

6.8.1 ESTIMATING THE POPULATION OF ÇATALHÖYÜK

Various estimates have been made for the population of Çatalhöyük. Mellaart (1965b, 202) initially suggested a population of between eight and ten thousand people, but later modified this to a 'conservative estimate' of five to six thousand people (1975, 99). Cohen (1970, 122-3) has argued that the population numbered over 5000; and Angel (1971, 82-3) has estimated that between five and six thousand people lived at the site. These estimates were mostly based on the building density in the South Area, the proportion of the site that was excavated, and a hypothetical household size. Likewise, Matthews (1996, 86) has used the building density of the North Area to calculate how many buildings could have been present on site. Arguing that households would have numbered about 4 persons, and that between 30 and 50 % of the site would not have been occupied, he suggests that the total population of Çatalhöyük might have numbered between 5060 and 6748 people in its prime (levels VII and VI). Hodder and Cessford (2004, 21; Cessford 2005) suggest a maximum population of between 3500 and 8000 people.

Because my data are more accurate than any of the figures at the basis of the above estimates,²³⁰ I will present yet another estimate on the basis of the level VIB exposure, but excluding the unpublished buildings of level VI in Area F. The most common size given for Çatalhöyük in recent reports is 13 ha (Hodder and Cessford 2004, 17), or 130,000 m². The level VIB exposure in the South Area measures approximately 2000 m², which is about 1.54 % of the total surface. In the VIB exposure 33 living rooms were documented (including Area A). Assuming that the average household group using these living rooms was about five persons (§6.5.2), this would mean that approximately 165 people would have lived here. Extrapolating this to the site as a whole we would arrive at 10,725 people. However, we should consider the fact that even at the time that the site was most densely populated between 25 and 50 % of the site would probably have been uninhabited. Thus the real maximum population (probably during level VI or VII) would probably have been between 5362 and 8044 people, whereas in other periods the population may have been much smaller.

What is remarkable about all the estimates mentioned so far is that they converge for the most part between about five and eight thousand people for the maximum population of Çatalhöyük. This figure thus might have some substance. On the basis of this estimated maximum population of the site we can estimate the number of neighbourhoods that could have existed during the prime of the settlement. Assuming a neighbourhood population of between 150 and 200

²³⁰ None of the authors possessed measured plans from which the surface of the VIB exposure could be calculated, nor have they determined exactly how many household units had been excavated in level VIB. The same critique can also be applied to my own earlier estimate (Düring 2001, 2, note 3).

people, there could have been between 27²³¹ and 53²³² neighbourhoods (compare the 10 to 15 for Aşıklı Höyük in §4.8.1)!

Despite this high number of neighbourhoods at Çatalhöyük and the large overall maximum population of the site, there are no indications for large monumental buildings of the type found at Aşıklı Höyük that are often interpreted as serving to integrate the community as a whole (§2.4.5; §4.9.1). While we cannot exclude the possibility that future excavation may yet reveal such structures, or that they might have been located in an off-site area, I would suggest that the configuration of elements at Çatalhöyük is a fundamentally different one. At Çatalhöyük houses are heavily invested with symbolism in a manner not paralleled at Aşıklı Höyük. It would appear that the type of supra-household collective rituals that probably occurred in the monumental complexes at Aşıklı Höyük was transposed to lineage houses at Çatalhöyük. A similar development has been suggested for the Fertile Crescent, where we find large communal buildings in the Early and Middle PPNB, but where these disappear towards the end of the PPNB, and are completely absent in the following Ceramic Neolithic period. Verhoeven (2002b, 8) has suggested that this relates to a shift from a focus on the community as a whole to one centred on single households. In the context of the Fertile Crescent this shift can be related to the disappearance of the large settlements that had characterised the later part of PPNB and the following shift to smaller local communities (Verhoeven 2002b, 11). In Central Anatolia this is obviously not the case: Çatalhöyük is at least twice the size of Aşıklı Höyük. Nonetheless we see a similar shift in symbolism from communal buildings to particular houses. The question then is: why were the communal activities that had previously been associated with the monumental buildings at Aşıklı Höyük no longer important to people at Çatalhöyük? This issue will be further explored in chapter 9.

6.9.1 THE SPATIAL CONFIGURATION OF THE ÇATALHÖYÜK SETTLEMENT

In this section the spatial configuration of the Çatalhöyük settlement will be investigated. In an earlier publication (Düring 2001) I have already suggested that the settlement configuration in the later levels V-I differs markedly from that in the early levels X-VI at Çatalhöyük, that can be linked to the shift in place-making activities discussed earlier in this chapter (§6.6.1). In particular, I argued that in the later levels at the site: first of all, a much greater part of the settlement was taken up by open spaces and the occupation was much less dense (Düring 2001, 12; see also Mellaart 1966, 172); second, that in the early levels at Çatalhöyük, buildings in which moulded features and sub-floor burials are clustered are most often located in the centre of the neighbourhoods, but in the later levels they tend to be placed in more accessible locations adjacent to large open areas (Düring 2001, 12-3); and third, that in the early levels at Çatalhöyük the neighbourhoods were organised as concentric entities, in which many buildings could only be accessed via the roofs of others, whereas from level V onwards most buildings could be accessed directly from an open space.

In relation to the setting of the individual buildings at Çatalhöyük two issues seem to change from level V onwards. First, the relation of buildings to other buildings is altered. Whereas in the levels X-VI the buildings cluster in a way that suggests that their inhabitants formed some form of collectivity, a point that can be corroborated by the differential distribution of sub-floor burials (§6.4.12) and the fact that buildings do not change significantly in dimensions over the centuries (which suggest that these buildings were owned collectively rather than by individual households (§6.6.1)), this pattern of close association is altered in levels V-I, in which buildings are less clustered. I am not suggesting that in the upper levels residence and kinship became separate entities. In such a large settlement as Çatalhöyük it is unlikely that people did not use residence to reinforce collective identities. However, people in a specific building would no longer have been directly linked to the other buildings of a neighbourhood physically and conceptually, rather, they would have felt connected with the people living in other buildings.

²³¹ A population of 5362 divided by 200.

²³² A population of 8044 divided by 150.

Second, the relation of buildings to open spaces changed in the level V-I at Çatalhöyük. I have already discussed the uses to which enclosed open areas were put in the early levels of the site (§6.2.1): these include various activities such as dumping refuse, animal penning, and the keeping of dogs, but not the processing of goods or craft activities. Thus these open areas seem to have been primarily negative spaces in the settlement, which were not used for locomotion or activities. This can be contrasted to the earlier situation at Aşıklı Höyük, where open areas were used for food processing and craft activities, as well as dumping refuse (Esin and Harmankaya 1999, 125). By contrast, in the upper levels at Çatalhöyük there is good documentation of alleys that lead to large open areas adjacent to which most of the buildings are located. It stands to reason that in this configuration of the settlement the open spaces were no longer only negative elements, but that they were used for transport, and perhaps for a range of other activities as well. While little can be said at present about the usage of open areas in levels V-I at Çatalhöyük (§6.2.1), it is of interest to note that Mellaart initially reconstructed many exterior doors in the upper levels at the site (see for example Mellaart 1962, fig. 4), but later reconstructed all buildings as having been accessed from the roof (1967, 56). While the issue whether or not exterior doors were common in the upper levels at Çatalhöyük can only be resolved through more investigations, I think it is plausible that they were part of a wider shift in place-making activities and settlement configuration that has been addressed in this chapter.

The changes in the configuration of space that have been outlined here would have had profound effects on the daily lives of people at Çatalhöyük. In the following sections I will explore these changes from two complementary perspectives: first, I will use access analysis to bring out the different configurational characteristics of the early and late levels at Çatalhöyük more clearly. Second, contextual evidence on the use of space will be discussed. Finally, I will try to reconstruct the experience of moving through the Çatalhöyük settlement, insofar as can such an exercise can be grounded in the extant data.

6.9.2 ACCESS PATTERNS AT ÇATALHÖYÜK

In the following I will present two access plans of levels VIB and V in the South Area. These two level plans were selected because they constitute the largest reliable exposures at Çatalhöyük (unlike the scrape plan on the northern summit of the mound), and are good representatives of the settlement configuration of the early levels X-VI (VIB) on the one hand, and the late levels V-I (V) on the other.

The methodology that is followed is a very simple one. Each bounded space, whether an open space or a room, is considered as a separate node, and unbounded open spaces are broken up into streets and courts where sharp breaks in direction or shape occur. The connections between the different spaces were then drawn, and differentiated according to their nature. For instance, a connection between two roof spaces was differentiated from a connection to an open space, or one in which a door facilitates ground level access.

This is not a classic access analysis that aims to represent the actual use of space (§2.3.2; §4.10.2.), but it is simply a methodological tool that can be used to bring to the fore more clearly the particularities of spatial configurations of Çatalhöyük, and to facilitate a general understanding of those configurations.

The problems that accompany the spatial analysis of Çatalhöyük neighbourhoods are of three kinds. First, the stratigraphy of Çatalhöyük is problematic, and thus we cannot be certain that the buildings represented on a plan are contemporary (§6.1.8. This is less of a problem than it may seem, given that buildings at Çatalhöyük generally replicate their predecessors, the fact that a building may be out of phase does not significantly affect the overall configuration of the settlement (§4.10.2; §6.6.1). Second, the roof surface at Çatalhöyük is fragmented: adjacent buildings have highly divergent floor levels (see next section). Given that we lack a sound stratigraphy for the neighbourhoods in the South Area, and that there is no way of determining whether these divergent floor levels also translated into divergent roof levels (alternatively the

roofs of some buildings could have been raised more than those of others in order to create level surfaces on the roof level), these roof level differences cannot be accounted for in this analysis. Third, we do not have sufficient data to determine where ladders would have been stationed in the Çatalhöyük settlement, and we should consider the possibility that ladder positions might have been in part dynamic rather than static during the occupation of the site.

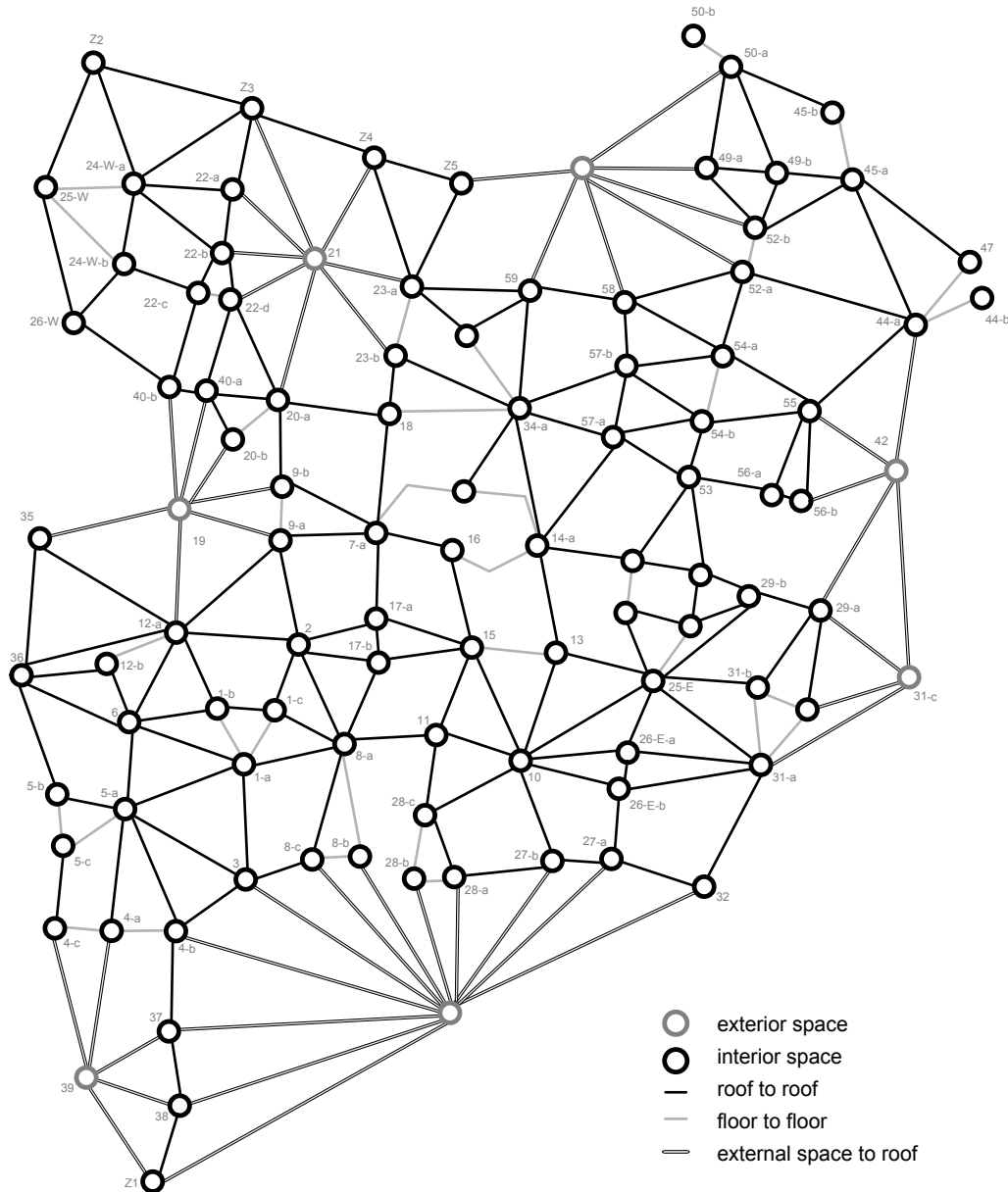


Figure 6.34: Access plan of level VIB in the South Area at Çatalhöyük, possible neighbourhood boundaries indicated with bold lines.

In light of these problems it will be apparent the access plans presented here are based on a set of very questionable premises, such as that a ladder would have facilitated every possible connection. Given this nature of the access methodology applied here, the use of calculations is

avoided and the access plans are meant simply to bring out the configurational characteristics of the Çatalhöyük settlements, while they do not tell us anything about the actual use of space.²³³

A clear difference can be noted in the spatial configuration of the levels X-VI at Çatalhöyük on the one hand, and V-I, on the other. The level VIB access plan (see fig. 6.34) can be characterised as follows. Most of the spaces can only be reached via the roofs of adjacent spaces. Those open areas located in the middle of the clustered neighbourhood often border on a large number of spaces, but seem to have played a small role in the overall configuration of the neighbourhood.

It would appear from figure 6.34 that this neighbourhood was approached from some larger exterior open space or elongated ‘street-like’ space of the type that has been documented in the scrape survey (§6.7.1). From such a space that bounded the neighbourhood one would have breached the roof level by way of a ladder. From there one could approach the specific spaces of destination on the roof level, which would in some cases have involved climbing or descending additional ladders placed on roofs to overcome differences in the roof elevation. The specific trajectories that people took, where the neighbourhood could be ascended, and where the most used footpaths on the roofs would have been, can no longer be determined, but this does not really affect our overall understanding of the spatial configuration of the neighbourhoods in the early levels X-VI at Çatalhöyük.

That configuration of the early levels at Çatalhöyük can be contrasted to that of level V (see fig. 6.35). In the level V configuration of space it is apparent that most spaces are located directly adjacent to large open areas. These open areas can be reached via alleys or streets, some of which are only 80 centimetres in width and thus too narrow for placing ladders (such as the northern alley on fig. 6.35), and it seems plausible that the roofs of the buildings in level V at Çatalhöyük were accessed from the central open areas. This configuration is similar to that discussed earlier for the site of Canhasan III (§5.8.1). However, at Canhasan III narrow alleys separated individual neighbourhood blocks from one another (as at Aşıklı Höyük), but for the upper levels at Çatalhöyük similar dividing alleys remain to be documented. What is of interest with regard to the delineation of the level V neighbourhood is a wall that defines the western boundary of the southern open area, which may have been put in place to increase control over the access to that southern part of the level V neighbourhood.²³⁴ Another issue I would like to stress is that by far the most elaborate building of level V, F.V.1, with 33 sub-floor burials, and a wall painting of a ‘hunting scene’ covering all walls, was situated in a highly accessible location, surrounded on four sides by open spaces rather than in the centre of a neighbourhood.

The level V neighbourhood would have been approached from an alley that provided access to a large court, from where the one ascended to the roof level of the adjacent houses (and in some cases in levels IV-II possibly entered those houses directly via doors). It is likely that these large open areas would have served a range of activities and would have been a place where people from different houses could meet on ‘common’ ground (§5.8.3). What is of great importance in relation to the configuration of space, is that moving through the level V settlement open areas and alleys would probably have been both less rule bound and less easily controlled than the movement across roofs in the earlier levels at Çatalhöyük, because these spaces were less closely associated with specific buildings than those roofs and movement through these spaces would have been less easy

²³³ In this respect, the criticism of my earlier work (Düring 2001) by Cutting (2003, 6-7), where she argues that my access analysis rests upon too many assumptions and is therefore flawed, is unwarranted. I have clearly indicated that I use access analysis only as a methodological tool for representing configurations, not as a description of actual spatial relations. The critique of Cutting is also unbalanced given that she herself, in her example of how access analysis should be used, engages in analysing hypothetical upper storeys of buildings (2003, 15).

²³⁴ On the level VIA plan Mellaart reconstructs a similar wall that served to separate of an open area in the north of Area E (Mellaart 1967, fig. 8).

to monitor. These differences suggest that the spatial configurations structured the behaviour of residents at Çatalhöyük differently, but this is only part of the story. People would have adapted these configurations to changing demands and have used these configurations according to their own preferences. It is to these aspects of the use of settlement space that we now turn.

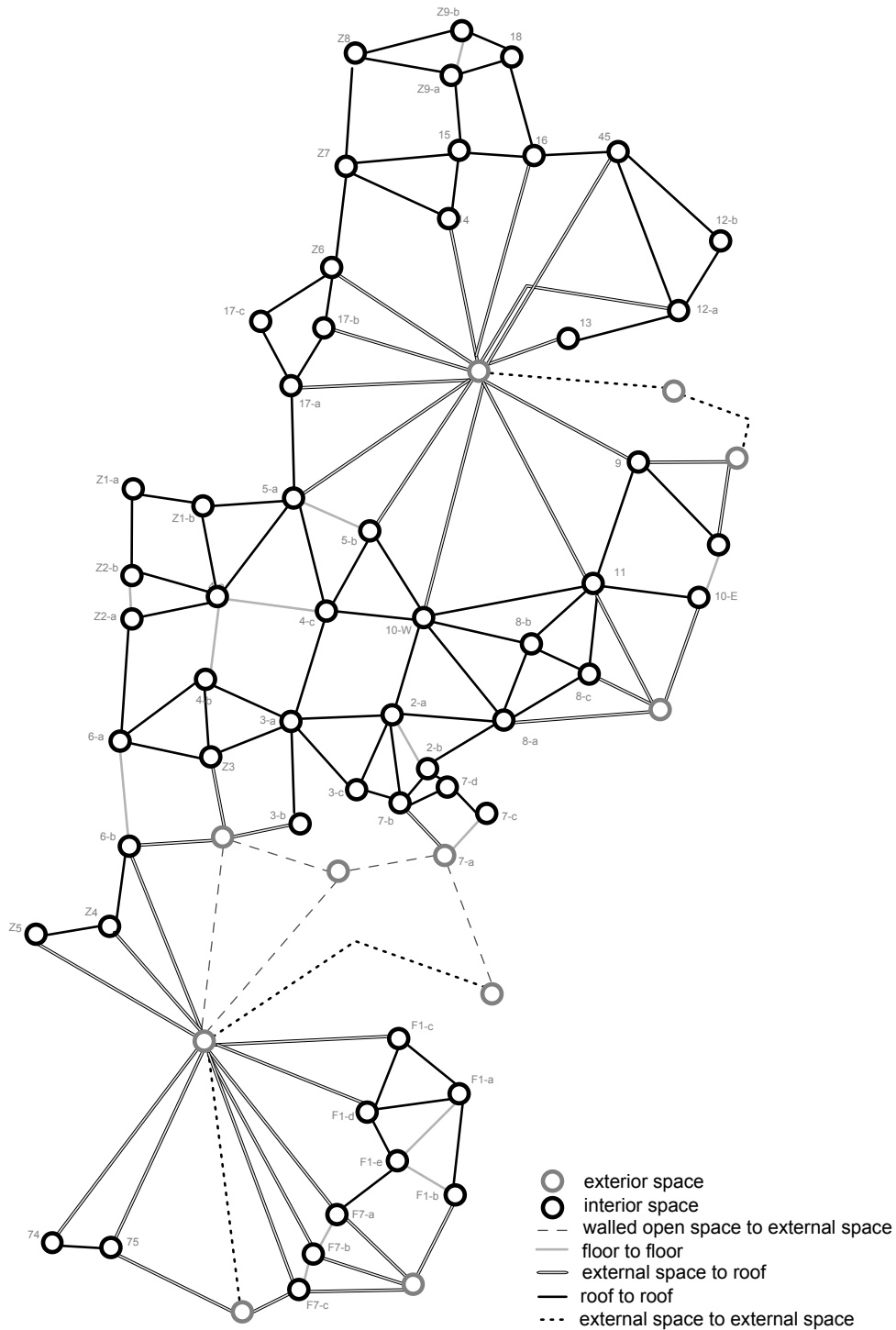


Figure 6.35: Access plan of level V in the South Area at Çatalhöyük.

6.9.3 EXTERIOR SPACES OF THE ÇATALHÖYÜK SETTLEMENT

In this section I will draw together the contextual information that can be assembled to assess the use of exterior space at Çatalhöyük. I should state at the outset that relatively little is known about the uses to which exterior spaces were put, and this is mainly the result of two factors: first, both in the 1960s excavation and in the ÇRP the focus has been mainly on the buildings and their inventories; and, second, a large part of the exterior space was located on the roof level, which is usually not well preserved. In the following I will distinguish: first, enclosed open spaces; second, those that are connected to a network of open spaces; and third, the roofscape, that is, the surface constituted by the combined roofs in a part of the settlement. Where appropriate I will distinguish between evidence from the early level X-VI and that from the late levels V-I.

Enclosed open spaces have mostly been found in the lower levels at Çatalhöyük, but there are some open spaces surrounded by walls in the upper levels as well. In some cases these may have been old buildings that had fallen into disuse, but of which the walls had not been razed, and other open areas may have been deliberately walled. One model that comes to mind for interpreting these bounded open areas is provided by ÇRP.2, a building dated to level VII in the South Area, which ended up as an animal pen. Other reasons for separating of a specific area could be related to keeping dogs. Further, some of the enclosed open areas in the upper levels contained features that were interpreted as communal bread ovens or kilns (Mellaart 1962, fig. 4; 1967, 216, figs. 6 and 7).²³⁵ These examples are of considerable interest, because they show that in the upper levels at Çatalhöyük these bounded open spaces may have been used for a range of activities.

By contrast, the enclosed open spaces of the early levels, which are for the most part surrounded by buildings, seem to have been used for dumping refuse, as animal pens, and for keeping dogs, but seemingly not as locales in which people descended regularly to process materials or to engage in craft activities (§6.2.1).

An exceptional enclosed open area in the early levels is located in the north of the level VIA exposure (Mellaart 1967, fig. 8). This open area might have served a different set of purposes than the others, given its large size. It is delineated to the north by a hatched wall that was not present in the original VIA plan (Mellaart 1964, fig. 1), and both factors indicate that this northern wall was ambiguous and difficult to interpret.

Concerning the open areas that are connected to a larger network of exterior spaces, much less is known. Such spaces have been documented for the upper levels in the South Area, and in the surface scrape on the northern summit (§6.7.1). In the 4040 Area excavations of 2004 one possible alley (spaces 232 and 240) was investigated to see whether this area had evidence for trampling, but it seems that such was not the case, although more research is necessary to settle this matter (Matthews *et al.* 2004). In the upper levels in the South Area it is clear that the large open areas in level V were accessible through alleys, and interconnected alleys have also been documented for level III. These spaces probably served as communication routes, and this is possibly corroborated by the fact that Mellaart initially reconstructed exterior doors in the upper levels at the site. Finally, in the level V reconstruction Mellaart (1966, fig. 9) reconstructs a kind of podium in the centre of the northern court. If this reconstruction is accurate this podium must have served some kind of purpose related to the use of the open area, suggesting that this area was more than a passage.

The reconstruction of the roofscape at Çatalhöyük is perhaps the most difficult of the exterior spaces. The following discussion will focus on the evidence from the early levels, but the roofs of the upper levels may have been similar in many ways, apart from the fact that the roofs were less used for communication in the spatial configuration of the later levels. It is probable that ladders were still providing access to the roofs, and that the roofs continued to be used for a range of activities in the upper levels. Ladders bridging the differential elevation of adjacent roofs might have become less common because most buildings could have been accessed from an unbounded open space directly.

²³⁵ Ovens of a similarly large size also occur earlier in level VIII-VI within buildings (§6.4.6).

What did the ‘roofscape’ at Çatalhöyük look like? There are a number of interrelated issues in connection to this question. First, there is the suggestion put forward by Cutting (in prep) that many buildings may have had partial second storeys. Second, there is some evidence for activities that were performed on the roofs. Third, the problem of drainage and the seasonality of the use of the roofs will be considered. Fourth, the fragmentation of the roofscape at Çatalhöyük will be discussed.

In most reconstructions of Çatalhöyük the buildings are envisaged as consisting of a single storey. However, it has been posited by some authors that the buildings at the site may have had partial upper storeys. In his Çatalhöyük monograph Mellaart wrote:

“Two stout main beams and many small beams supported the heavy roofs. There is no direct evidence for the existence of a second storey of light materials or a partial second storey with columns, extending over part of the building, but some houses may have been provided with them.” (1967, 56).

This conjecture of a possible structure on the roofs was later modified to a more definite statement: “Each house had a partial upper storey built of wood and plaster” (Mellaart 1978, 17, see also fig. on page 13). More recently a similar suggestion was made by Cutting, focusing particularly on the presence of posts in the Çatalhöyük buildings:

“it is difficult to see what purpose wooden structures would have served if not to support substantial overhead weights. Certainly the well-constructed walls, aided by large wooden posts and frames or pillars would have been strong enough to support an upper storey.” (Cutting in prep).

She then proceeds to reconstruct very substantial upper storeys on the basis of this argument. I have already shown that the idea that the Çatalhöyük buildings could easily have supported upper storeys and that the posts were related to those is seriously mistaken (§6.3.1; §6.4.8). Her judgement of the load bearing capacity of the Çatalhöyük buildings is not in any way substantiated, and serious doubts can be raised concerning the feasibility of upper storeys. In the section on room sizes (§6.3.1) it has been pointed out that the width of the Çatalhöyük rooms is often much larger than is usually attained with the building technology of loam walls and flat loam roofs (§3.3.7). The normal maximum width of buildings of this type is about 3 ½ metres, but at Çatalhöyük room widths from 4 to 6 metres are quite common (see fig. 6.10). Given these considerations the manner in which the Çatalhöyük roofs could be supported by the outer walls and the girder beams presents something of an enigma.²³⁶ Further, in chapter 9 I will show that the introduction of upper storeys only became possible in conjunction with a series of architectural innovations that increased the load bearing potential of walls. In conclusion, there are no reasons to assume that the buildings at Çatalhöyük could have supported substantial upper storeys.

Another argument against the existence of substantial upper storeys at Çatalhöyük is: why has nothing been found of those structures? At Canhasan I, where the excavated exposures were of a much more limited size than at Çatalhöyük, numerous unequivocal remains of upper storeys were found (§8.2.2). Given the fact that large areas were excavated at Çatalhöyük one would expect some evidence pointing in that direction. So far the only evidence for a possible upper storey is from ÇRP.3, in which a series of floor plasters were found on a collapsed roof (Matthews 1998). However, from the same collapsed roof came a series of deposits that show exposures to water and the elements (*ibid.*), and it is commonly thought that there may have been a small shelter over the ladder entrance rather than a substantial second storey on this building (meeting on building technologies in the Çatalhöyük 2004 campaign).

²³⁶ One suggestion that has been put forward is that juniper allowed for larger spans than the types of wood used at present. However, given that in traditional buildings at Konya the maximum span seems to have been about 3.5 metres (Berk 1951, 135) I am hesitant to accept this argument. Certainly the builders of Konya could have acquired juniper beams had they wished to.

Finally, it is not at all clear why the people at Çatalhöyük would have needed upper storeys in the first place. The living rooms at Çatalhöyük are spacious in comparison to those of the other sites in the Central Anatolian Neolithic and contain all the necessary features for domestic activities. The houses of Çatalhöyük were well equipped and an upper storey would not have been required to meet the needs of the inhabitants.

On the other hand it is not unlikely that more ephemeral shelters and structures were placed on the roofs at Çatalhöyük. One location where this is especially likely is above the ladder entrance, where a shelter could have protected the entrance and the room below from unwanted dust or precipitation (for a parallel see Aurenche *et al.* 1997, fig. 4.4), and additional shelters could have been present that created a shade beneath which goods could be stored and activities could be performed.

A range of activities seems to have been performed on the roofs at Çatalhöyük. Although our data are presently restricted to a single roof, the collapsed roof of ÇRP.3, with some additional evidence from ÇRP.5 (Matthews 2005, 373), we do have evidence for a range of activities. A fire installation was found on top of this roof, and a 'clean' and a 'dirty' roof area was recognised, suggesting that food processing and craft activities similar to those in the southern parts of the living rooms took place on the roofs (Matthews 1998; Stevanovic and Tringham 1998). Thus it can be suggested that many of the activities normally taking place in the buildings would have taken place on the roof at times. This would probably have occurred in summer, when the climate and the heat conductive properties of loam buildings are such that many activities take place in the open (§3.2.1). The use of flat loam roofs in the summer for a range of activities is well attested in Near Eastern ethnographies (§3.4.5), and it is probable that at Çatalhöyük the roofs would have functioned as multi-purpose areas, given the fact that open spaces were rare in the settlement and mostly used as garbage dumps. In this respect, the Çatalhöyük roofs would have been more like a modern front garden than a roof, featuring the entrance to the building below, and with various goods and features present on the roofs, and with people performing a range of activities on them during the hotter part of the year.

Conditions would have been markedly different in winter, when people would have performed most of their activities inside the house to avoid the cold and moist conditions outside. One issue of importance in the reconstruction of the Çatalhöyük roofscape is that of drainage. It is surprising that this has received no attention so far, given the vulnerability of loam buildings to various types of moisture (§3.4.5). It is essential for loam buildings to minimise exposure to precipitation. In vernacular loam buildings of the Near East a series of measures are used to limit the detrimental effects of precipitation. These measures include frequent upkeep and re-plastering of the outer walls, squeezing moisture out of the roof with heavy cylindrical stones, the insertion of spouts that drain precipitation water at some distance from the outer walls, and rules that inhibit roof top activities during the wet part of the year.

In relation to the issue of drainage and moisture management there are two problems that need to be mentioned. First, how did the drainage system work at sites such as Çatalhöyük and Aşıklı Höyük? In a settlement with freestanding buildings water can be drained directly onto the surrounding open spaces, but at Çatalhöyük this is not possible, given the fact that open spaces are few and often far between. In this respect the apparent absence of spouts at the site is perhaps not surprising, although one could expect buildings directly adjacent to courts to have had spouts. A second issue regarding water management at Çatalhöyük is how accessible the roofs were during the wet season of the year. Matthews has argued that she has good evidence that the roof of building ÇRP.3 was not walked on during the rainy months in winter (Matthews in prep). Avoidance of loam roofs in the wet season is a common practice amongst people living in similar buildings today, because the roofs can be easily damaged in saturated conditions, due to which the roof is weakened and has increased in mass. Saturated abode roofs may collapse on their own account, and walking on them is not a safe exercise, especially when people are sitting below (Peters 1982, 231). At Çatalhöyük this raises an interesting problem, because the only way in and

out of the domestic units was over the roofs. We can only speculate at this point, but it is not impossible that some form of wooden gutter and or walkways existed at the site to solve these two related issues.

Finally the relief of the roofscape can be considered. In the part of the mound excavated by Mellaart the relief of the mound was pronounced, but in other parts of the settlement the roofscape may have been more even. The settlement in the South Area was constructed in a series of terraces running along the contours of the mound. Due to these characteristics the floors of two adjacent contemporary buildings may differ substantially in elevation. In extreme cases one floor may be located as much as 3 metres above that in the adjacent building (see VIB.36 and VIB.12 on fig. 2 Mellaart 1964). In most cases these horizontal offsets were less pronounced, but would still have required a ladder in daily traffic.

We can presume that most buildings had their roofs at a set distance above the floors, probably in the range of 2 – 2.5 metres above the floor, but in some cases the roofs of some buildings could have been raised more than those of others in order to create level surfaces on the roof level. Further, the problems with defining the stratigraphical relations between adjacent buildings have already been alluded to (§6.1.8). At Çatalhöyük we can note that many buildings occur on both the level VII and VIB plans, or on both level VIB and VIA plans, with identical ground plans and elevations. Given that an average building phase would have lasted about 60 years (§6.2.6) and considering the constant process of change occurring in the buildings excavated by the ÇRP (§6.2.5), it seems unlikely that no changes occurred during this period of occupation. Due to these problems it is not possible at present to reconstruct Çatalhöyük roofscapes with any degree of accuracy. In this respect all reconstruction drawings of the Çatalhöyük settlement should be treated with due caution. Nonetheless such reconstructions are informative on many aspects of the settlement and how it would have functioned.

6.9.4 MOVING THROUGH THE ÇATALHÖYÜK SETTLEMENT

From the preceding sections it will have become apparent that the conditions that accompanied movement through the settlement of Çatalhöyük would have differed for the early and the upper levels and in the hot and cold part of the year. I will briefly describe these four different sets of conditions (see table 6.7).

In the early levels X-VI in the summer the neighbourhood would have been approached through a network of unbounded open spaces in which the individual neighbourhoods were situated. Given that these unbounded open spaces were not associated with any particular neighbourhood these would have been places where people from different neighbourhoods would have met during the transport to and from their specific residential quarter, and these probably would have been places where these people could socialise with one another. The contrast between these unbounded open spaces and the clustered neighbourhoods would have been marked, because it is likely that only residents and invitees could ascend onto the neighbourhood roofscape, and it is probably that the point where the neighbourhood roofscapes could be accessed were closely monitored (see Booth 1999 for a description of such a system).

The neighbourhood roofscape would have been a radically different environment from the exterior open spaces. Residents would have been acquainted with people living in these buildings, and would have been aware of status differences between the buildings in a neighbourhood. On the roofs a range of activities would be taking place, and a number of people would have been present on the roofs performing tasks or simply relaxing. Social interaction on the roofscape was probably intensive. The occasional bounded open areas in the neighbourhood would probably not have been used by people, but in some case dogs or sheep would be present amongst the refuse that was regularly deposited in these places. Finally, descending into the houses would be a transition into a dark and quiet place that was unpleasantly hot in the late afternoon and early evening.

Conditions	Hot and dry seasons	Cold and wet seasons
Levels V-I	-buildings used for storage, and general living extensively	-buildings used for storage, food processing and craft activities and general living intensively
	-roofs used intensively for storage, food processing and craft activities and general living activities and for accessing buildings	-roofs used for accessing buildings
	-bounded open spaces used in part for activities, keeping animals and dumping refuse	-bounded open spaces used for keeping animals and dumping refuse
	-unbounded open spaces used for transport and socialising	-unbounded open spaces used for transport
Levels X-VI	-buildings used for storage, and general living extensively	-buildings used for storage, food processing and craft activities and general living intensively
	-roofs used intensively for for storage, food processing and craft activities and general living activities and for accessing buildings and transport and socialising	-roofs used for accessing buildings
	-bounded open spaces used for keeping animals and dumping refuse	-bounded open spaces used for keeping animals and dumping refuse
	-unbounded open spaces used for transport and socialising	-unbounded open spaces used for transport

Table 6.7: Overview of the different types of activities taking place in buildings, on roofs, in bounded open spaces, and in unbounded open spaces during the hot and cold parts of the year and in early and late levels at Çatalhöyük.

The same settlement in the winter would have afforded a radically different experience. The unbounded open spaces exterior to the neighbourhoods would have been used for transport, but given the adverse climate little socialisation would probably have occurred in this part of the year. The roofscape of the individual neighbourhoods was probably much less intensively used, with all goods and containers removed, and people no longer performing activities on the roof or spending time outside. People may have moved more carefully over the roof and restricted their communications, in order to avoid damage to these roofs. In the bounded open areas people were regularly depositing their refuse, and dogs and animals may have been present, some perhaps in shelters of some sort.

Descending into the houses probably meant moving through the smoke fumes of the hearth or oven below, into the warm and dry building that was full of people performing tasks or resting. Life in winter thus would have been much more introverted and household based than in the summer.

In levels V-I many of the experiences would have been similar to those in the earlier levels. The bounded spaces external to the neighbourhood would still have been meeting places for people from different quarters. A new type of exterior unbounded open space was introduced, however, consisting of open areas and alleys located inside the individual neighbourhoods. In some cases the large open areas of this sort could be accessed from a narrow alley, and walls were put in place to separate off these open areas (for instance in level V). This suggests that access to these internal open areas was bound to residence or invitation. The internal open areas would have acted as meeting places for neighbourhood members, but do not seem to have been in use for food

processing or craft activities, which were probably performed primarily on the roofs and in bounded open areas in this part of the year. Thus the communal open areas of the upper levels at Çatalhöyük do not really replace the roofscape in the early levels, because they are less private and more communal, and because fewer activities took place in them.

Finally, the roofs in the upper levels probably continued to be used for a range of activities, but were no longer meeting places where people residing in the neighbourhood were in direct contact. Almost every building could be accessed directly from an open area, whether through an exterior door or via the roof.

The settlement in the upper levels underwent a similar transformation in winter as was the case in levels X-VI: people would have minimised their presence outside; no longer performed food processing or craft activities in the open if they could help it; and little socialising would have occurred outside. Instead people would have spent most of their time indoors with the other members of their household. Finally, some of the elderly people at the site, who were not able to climb the ladders, might have resided in the houses permanently, and this has been linked with soot remains found on the ribs of a number of old individuals, that probably accumulated as a result of prolonged exposure to smoke from the in door hearths and ovens (Molleson *et al.* 2005, 298).

6.10.1 SOCIAL DIMENSIONS IN THE ÇATALHÖYÜK SETTLEMENT

A large number of issues have been raised in this chapter relating to the characteristics of buildings, the neighbourhood, and the settlements as a whole at Çatalhöyük. Here I would like to outline some implications concerning the social structure of the local community at Çatalhöyük.

In the early levels at Çatalhöyük people were living in clustered neighbourhood groups that would probably have encompassed between 150 and 200 people (§6.7.1). At the height of its occupation, during levels VII and VI the population of Çatalhöyük would probably have numbered between five and eight thousand people, and there would have been at least 27 neighbourhoods (§6.8.1). Thus is a huge agglomeration of people situated in a more or less empty landscape, in which no contemporary settlements have yet been located (§6.1.3).

The individual neighbourhoods were constituted by approximately 30 to 40 households, if we take the living rooms as an index. Most of these households were living in distinct buildings, set off by their own set of outer walls, and consisting of a living room and in some cases additional storage rooms (§6.5.2). The space available to these households was about 27 m² on average (§6.3.2). In a few cases household residences were configured differently, however. There are some clear examples of buildings in which multiple living rooms are present, and in some cases these living rooms are connected via interior doors. Thus, not all households at Çatalhöyük were conceived of as autonomous groups, but in some cases people chose to live in close cooperation with another household group.

The individual buildings at Çatalhöyük went through a complex series of modifications in their compartmentalisation and placement of features (§6.2.5), but these changes did generally not affect the overall organisation of space in these buildings. The living rooms at Çatalhöyük were configured in a remarkably standardised manner, with a specific compartmentalisation of space and a particular configuration and orientation of features with those rooms. This spatial format of the living rooms cannot be explained adequately by functional parameters alone, and it is likely that this spatial code acted as a kind of micro-cosmos, embodying a set of principles central to society at Çatalhöyük (§6.5.3). This spatial format in buildings probably served as an important channel for the transmission and reproduction of social life at the site, as was suggested by Hodder (1987; 1990). In this manner the standardised internal configuration of buildings probably acted as an important means for creating and reproducing a sense of community by establishing a set of shared categories and ways of viewing the world.

There is more to the symbolism in the Çatalhöyük buildings than that, however. Some buildings have many sub-floor burials beneath their floors, and others have none (§6.4.12), and the same seems to be the case for moulded features and installations (§6.4.11), although post-

occupational factors may have significantly skewed our evidence for these features. On the basis of the distribution of sub-floor burials we can demonstrate that there is a clear status differentiation of houses, with some buildings acting as burial sites for a group of people that included a number of houses. For instance in the level VIB neighbourhood, that encompassed at least 30 households, four houses with each over 25 sub-floor burials contained the large majority of burials. From that evidence it is apparent that the individual households were embedded in larger collectivities related to these high status lineage houses (§6.5.4). Tentatively, it has been argued that each neighbourhood at Çatalhöyük would have consisted of no more than five to six house groups, that were constituted by approximately seven households one of which would have been a high status lineage house.

The relation of people to buildings at Çatalhöyük acquires additional profile if they are understood in their diachronic context. In the South Area buildings can be traced over up to seven rebuildings, that lasted approximately 420 years and resulted in a horizontal displacement of up to 7.5 metres. Two main conclusions can be drawn from the analysis of the diachronic development of these buildings. First, building sizes and orientation show little change during levels X-VI, and this seems difficult to reconcile with the idea that households owned their residences. It is more plausible that buildings were distributed amongst the group of people residing in a neighbourhood that together formed a social collectivity. Second, in the continuous buildings in the South Area, we can see a gradual increase in their ritual elaborateness over time, with buildings that started out as normal domestic structures ending up as domestic buildings with many sub-floor burials and in some cases moulded features and installations (§6.6.1). This pattern, in which building status and building pedigree are interrelated, is one that has been documented in many ethnographic case studies, and that gives us an insight into how social groups were constituted at Çatalhöyük.

The clustered neighbourhoods of the early levels at Çatalhöyük were thus much more than a group of residential structures. They constitute a social collectivity that managed corporate interests, and may have owned the buildings in that neighbourhood and distributed the houses to members according to their changing needs and statuses. Some people would manage to achieve the stewardship of a high status house in which members of a house group were being buried, and in which other rituals, relating to, for instance, marriage, may have taken place that have left no archaeological residue. For the group of people living in neighbourhoods the houses symbolised their existence as a group, and an essential part of this identity was related to the pedigree of the continuous houses in the neighbourhood.

In this configuration the neighbourhood roofscape was a communal domain that could only be accessed by residents and invitees. In the centre of the neighbourhood the lineage houses were located that were of central importance to these people, and these were especially difficult to access for outsiders. In the summer people were performing a range of activities on their roofs, and the roofscape would have been a place in which the neighbourhood was constituted on a daily basis through close contact and mutual involvement of the residents. In winter, social interaction would have been much less intense because most activities took place in the house in the context of household life (§6.9.4).

In levels V-I the shape of the Çatalhöyük settlement and the manner in which society was constituted by the built environment was transformed, although a number of issues remained similar to before. The spatial code that the living rooms at Çatalhöyük adhere to was maintained in the upper levels. Likewise, the building status differentiation, in which some buildings were burial sites serving a group of households, continued to exist.

The overall population of Çatalhöyük seems to have reached its maximum in levels VII/VI (§6.1.8), and after this period the settlement seems to have shrunk in size and have become more open in character (Mellaart 1966, 172; Matthews 1996, 85; Düring 2001, 12), and this can perhaps be linked to the fact that many new sites were established in the Konya Plain during the Late Ceramic Neolithic and subsequent Early Chalcolithic periods (§6.1.3; Baird 2002; Düring 2002).

Simultaneously with this decrease in population size we can document a break in place-making traditions and a reconfiguration of settlement space at Çatalhöyük. Whereas in the early levels building pedigrees were of prime importance for determining the status of buildings at Çatalhöyük, from level V onwards buildings with high status occur that have no proper pedigree (§6.6.1). These buildings are often located in highly accessible locations rather than in the centre of the neighbourhood. It could be argued that the status of buildings became linked to that of people in this period: that high status houses were the residences of lineage elders rather than lineage elders moving into building of proper pedigree.

The abandonment of the clustered neighbourhoods from level V onwards, in favour of a system in which most buildings could be accessed directly from open spaces internal to the neighbourhood, was probably linked to a change in the ways in which people defined themselves and related to their houses. Buildings probably became privately owned in this period, and no longer were the property of a collective entity, in which houses were distributed amongst neighbourhood residents. Thus the people living in these houses no longer related to the other houses of the neighbourhood, but only to the people resident in those houses.

Furthermore, with the introduction of communal open spaces internal to the neighbourhood from which most houses could be directly accessed, either via a door or via the roof, the configuration of the interaction of neighbourhood members was changed. No longer did the roofscape act as a place in which the neighbourhood was constituted on a daily basis through close contact and mutual involvement of the residents. The roofscape was no longer the main means of transport, and most roofs would only have been accessed by the members of the individual households. The open spaces from which buildings were accessed would have been similar in some ways to the earlier roofscapes, in that people from the neighbourhood could meet and socialise in these places, but given that people were not engaged in activities in these places, this type of contact would have been both less structured and less frequent than that on the earlier roofscapes.

In conclusion we can document two divergent configurations of society and settlement at Çatalhöyük. In the early levels X-VI people lived in clustered neighbourhoods encompassing some thirty to forty households, and attached great value to the neighbourhood as an expression of their collective identity and their link with past. In particular some houses were of noted pedigree and were in use as burial sites for a larger group of households. Houses were probably distributed amongst residents according to their changing needs and status. The roofscapes of these neighbourhoods were used for a range of activities, as well as for transport, and the access to this roofscape would probably have been restricted to residents and invitees, and the roofscapes further acted as places where neighbourhoods were constituted in interaction on a daily basis.

By contrast, in the later levels, the membership of the larger neighbourhood seems to have been of lesser importance, and increasingly the focus was on the individual households, owning and adjusting their own specific buildings, and interacting with each other on a less frequent and less structured basis. Nonetheless, it is plausible that residence was still determined by corporate group membership and some building still acted as burial sites for a larger group of households. Thus the balance between the neighbourhood community and the individual household was readjusted, but the two components of social life were still interrelated.

CHAPTER 7: THE SETTLEMENT OF ERBABA

The site of Erbaba is of considerable culture historical importance for our understanding of the Neolithic of Central Anatolia for a number of reasons. First, apart from Çatalhöyük, it is one of the few sites that can be dated to the Ceramic Neolithic of Central Anatolia that has been investigated (§1.3.2; Harmankaya *et al.* 1997). In this respect Erbaba complements the data from Çatalhöyük and puts that site in a regional perspective. Second, relatively large exposures were excavated at Erbaba, which provide us with an insight into this Neolithic site at the settlement level. Third, the site differs in a number of important respects from the other Central Anatolian Neolithic sites, while in other respects clearly belonging to that cultural horizon. Most notably, the use of stone for construction purposes can be mentioned. Additionally, the landscape setting of Erbaba is very different from all of the other settlements that have been discussed. It is located on the fringe of Lake Beyşehir, and the marine component of the economy of Erbaba can be clearly documented. Finally, Erbaba is a small site in a landscape with other contemporary small sites located at a close distance.

Despite the potential of Erbaba as a key site in the Prehistory of Central Anatolia, and the fact that the excavations at the site lasted for six seasons, the site figures little within studies of the Central Anatolian Neolithic.²³⁷ There are two reasons why this is the case. First of all, an excavation methodology was used in which a series of irregular trenches were dug dispersed across the site, and this has been detrimental to our understanding of the site. Second, published information on the site is limited. All that has been published for the six seasons that took place at the site are a number of short preliminary reports (Bordaz 1969; 1973; Bordaz and Bordaz 1976; 1977a; 1977b; 1978a; 1978b; 1982).²³⁸ The absence of detailed reports and the lack of good plans constitute a major problem for the present analysis. Erbaba is included here mainly for the sake of completeness, and in consequence this chapter should be regarded as an ‘intermezzo’ in the context of this study, rather than a constituent element on the basis of which our understanding of the Central Anatolian Neolithic can be enhanced.

7.1.1 GEOGRAPHICAL SETTING

Erbaba is located on the eastern shores of Lake Beyşehir. This environment differs from that of the Konya Plain in a number of respects. Annual precipitation is higher at ca. 500 millimetres, which makes rain-fed agriculture feasible. Mountains and woodlands are present at some 12 kilometres from the site. The environment of Erbaba was probably rich and varied in Prehistory as it is today (Van Zeist and Buitenhuis 1983, 48; Van Zeist and Bottema 1991, 75-9). Thissen (2002b, 18) has pointed out that Erbaba is only one of a group of relatively small Ceramic Neolithic sites located on the shores of Lakes Beyşehir and Suğla, all situated in favourable locations that allowed their residents to tap resources from different ecological zones, and in these respects these sites can be contrasted to the large single site of Çatalhöyük located in the middle of a large alluvial plain.

Erbaba is a small site measuring about 80 metres in diameter, and has about 4 metres of archaeological deposits. It is located on a rocky outcrop not far from Lake Beyşehir. The deposits of the site can be dated exclusively to the Ceramic Neolithic period on the basis of the pottery and chipped stone assemblages and the radiocarbon dates obtained.

²³⁷ See for example the various articles in Gérard and Thissen (2002), in which the site is mentioned only in passing.

²³⁸ The botanical and faunal assemblages have been better published (Perkins and Daly 1968; Van Zeist and Buitenhuis 1983; Martin *et al.* 2002).

7.1.2 RESEARCH HISTORY

Erbaba was first recognised in a surface survey of the Beyşehir region by Solecki in 1963. The site subsequently suffered from illicit excavations, and in order to protect it from further damage, four excavation seasons were undertaken in 1969, 1971, 1974, and 1977 respectively. In those four seasons approximately 1100 m² were excavated, amounting to about 22 % of the mound. There were also two seasons in 1976 and 1978 that were devoted entirely to the analysis of the excavated assemblages. The investigations were under the joint supervision of Jacques Bordaz and Louise Alpers-Bordaz on behalf of the University of Montreal and Columbia University.

Initially the site was investigated with a large number of 2 m² trenches, which were distributed across the site (Bordaz 1969, fig.1).²³⁹ In most of these trenches stone walls were encountered at ca. 20 centimetres below the surface. In addition, 13 of these trenches were excavated to sterile soil.

Apart from the 2 m² test pits some larger areas were also opened up at Erbaba (see fig. 7.1). These areas were labelled capital A-I, but as the excavation proceeded some of these areas were joined together. As can be seen in fig. 7.1, the trenches were often of an irregular shape, and are dispersed across the site.

The use of irregular and dispersed trenches at Erbaba hampers the analysis of the settlement considerably. In many cases it is impossible to relate the buildings found in the individual excavation areas with those in other areas. For instance, the unexcavated blanks in between areas G and I, and A and D, make it impossible to connect the isolated building remains in those areas. The problem is exacerbated in the case of the outlying areas B, E and F, that cannot be even remotely linked to the buildings of the central area of the excavations (A, C, D, G, and I). Even in the centrally located areas it is far from clear that the buildings exposed belong to the same phase of occupation.

However, despite these problems the plan presented in the preliminary reports does seem to represent a coherent plan in many respects. One element that is clear is the fact that many of these buildings share a similar orientation. Further, the integrity of the individual buildings is respected: there are no examples of walls that are crosscutting. On the basis of such considerations we can tentatively study the Erbaba plan as a representation of this Neolithic settlement.

7.1.3 STRATIGRAPHY AND CHRONOLOGY

On the basis of the result in the 2 m² squares that were initially excavated at Erbaba a site stratigraphy was devised. Three layers (I-III, top to bottom) were distinguished in the excavations, beneath which sterile soil was reached. These strata are loam deposits with distinct textures (Bordaz 1969, 60). Layer I is described as a grey sandy loam, loose in texture and approximately 60-100 centimetres thick. Layer II is a grey sandy loam, compact and on average 80 centimetres deep. Finally, layer III is a brown sandy loam with many black (organic) lenses and burnt areas, about 100 to 150 centimetres thick. Each of these layers contained architecture, but only layer I has been explored on a large scale. Layers II and III were excavated only in a few soundings that can be estimated to total no more than 70 m² (Bordaz and Bordaz 1982, 89), located in areas G and C (see fig. 7.1).

This stratigraphy proposed by Bordaz is problematic at best. It was derived from the evidence in a number of small trenches scattered across the site. Moreover, it was based on the highly problematic proposition that there are a few clearly definable deposits that can be traced over the entire site. This is a naïve model for the stratigraphy of a tell settlement, which cannot be

²³⁹ This is a method of excavating that was only used during a relatively short time span in Near Eastern archaeology during the 1960s by American archaeologists. Other sites where a similar methodology was applied are Sürük Mevkii, and Suberde (Harmankaya *et al.* 1997). This method of excavation was propagated by the New Archaeology (Winter 1976), but in the end proved to be unsuitable for sites with a complex stratigraphy, most notably tells. As a result, this manner of excavation was soon abandoned in Near Eastern archaeology.

substantiated. In this study I deal with some instances in which the stratigraphy of large excavated exposures of tell sites proved highly problematic, for instance at Çatalhöyük (§6.1.8) and Canhasan I (§8.1.3), despite the existence of detailed excavation records (see French 1998). The processes that led to the formation of the archaeological record in tell sites such as Erbaba are of an infinite complexity (§3.5.1), which can only be understood using careful methods of excavation and the proper conceptual frameworks. In view of that complexity the stratigraphy presented by Bordaz is regarded as overly simplistic.

The older layers II and III of Erbaba have been excavated in the north of areas G, and in area C, but no plans were provided of the building remains found in these trenches, although some buildings are discussed in one of the reports (Bordaz and Bordaz 1982). By contrast the layer I settlement has been investigated over a considerable area (see fig. 7.1).

Four radiocarbon dates were obtained at Erbaba, but three of these have an error margin of more than a millennium in their calibrated range, which makes them too imprecise to be of much use. I-5151, the radiocarbon date taken from level III that is not affected by this problem has a range of 6690 – 6430 calibrated BC at the 66 % confidence level, which would put ‘layer III’ at the site at the transition from Early to Late Ceramic Neolithic (§1.3.2; Thissen 2002a, 326), approximately contemporary to levels VI and V at Çatalhöyük. However, a single radiocarbon date is difficult to rely on for dating purposes. The ceramics and chipped stone industries, mostly deriving from ‘layer I’, suggest a date that falls in the Late Ceramic Neolithic (see next section).

7.1.4 ARTEFACTS AND ECOFACTS

Two ceramic wares were identified at Erbaba. The first is ‘dark gritty ware’, which was the exclusive type of pottery in layer III, and constituted about one third of the pottery in layers II and I. This ware has a thin fabric, and the vessels have simple hole-mouth forms, in some cases with horizontal tubular lugs. Dark gritty ware is related to levels VIII–0 of Çatalhöyük by the excavators (Bordaz and Bordaz 1976, 41; *cf.* Duru 1999, 172; Thissen 2000, 86). The second ware has been named ‘gastropod’ ware due to its temper of ground shells of that species. The gastropod ware is closely related to the dark gritty ware, although ring and pedestal bases are more common, as are crescentic handles and vertical lugs. Some appliquéés are also found in the assemblage. This ware has been related to Hacilar layers IX–VI by the excavators (Bordaz and Bordaz 1976, 42).

More than 32,000 shards were found at Erbaba. Compared to the amount of shards found at Çatalhöyük that is a large body of shards in relation to the scale of the excavated exposure at Erbaba.²⁴⁰ The ubiquity of pottery at Erbaba may indicate that the site was occupied during the later stages of the Ceramic Neolithic period, when pottery gradually became more common. Furthermore, the almost complete absence of painted ceramics at Erbaba (Bordaz 1973, 284) suggests that the site was abandoned before the onset of the Early Chalcolithic.

The chipped stone industries are hardly commented upon in the preliminary reports. Half of the ‘specialised tools’ and three quarters of the ‘unspecialised tools’ are made from obsidian, the rest are flint. Projectile points are rare (3 %), more common are notched blades (20 %) and sickle blades (15 %). Other common categories are truncated blades, flake scrapers, backed blades and borers.

Other finds from Erbaba include two figurines, one male and one female, which remain to be published. The faunal spectrum was dominated by sheep and goat and, to a lesser degree, cattle (Martin *et al.* 2002, 202). Botanical remains included emmer and einkorn wheat, free-threshing wheat, naked barley, and pea and lentil, among others (Van Zeist and Buitenhuis 1983, 59).

²⁴⁰ For instance, only 1,876 shards from the 1960s excavations at Çatalhöyük are stored in the Konya Museum, only 312 of which have been found in the Early Ceramic Neolithic levels (Last 1996, table 9.1). In the surface scrape at that site 3,932 additional shards were found in an area measuring 3300 m² (Last 1996, 122, table 9.8).

7.2.1 THE ERBABA SETTLEMENT

The Erbaba settlement appears to be similar in many respects to the other settlements of the Central Anatolian Neolithic. It was a densely built-up configuration of buildings that were clustered in blocks. The excavated part of the mound seems to be almost completely occupied by buildings and there is little evidence for the existence of streets or alleys. Two components can be recognised in the Erbaba settlement, consisting of: first, interior spaces; and, second, open spaces. Due to limited and dispersed exposures at Erbaba, and the fact that not much has been published on the site, little can be said about the nature or extent of the open spaces. For this reason the following discussion will focus on the interior spaces at the site.

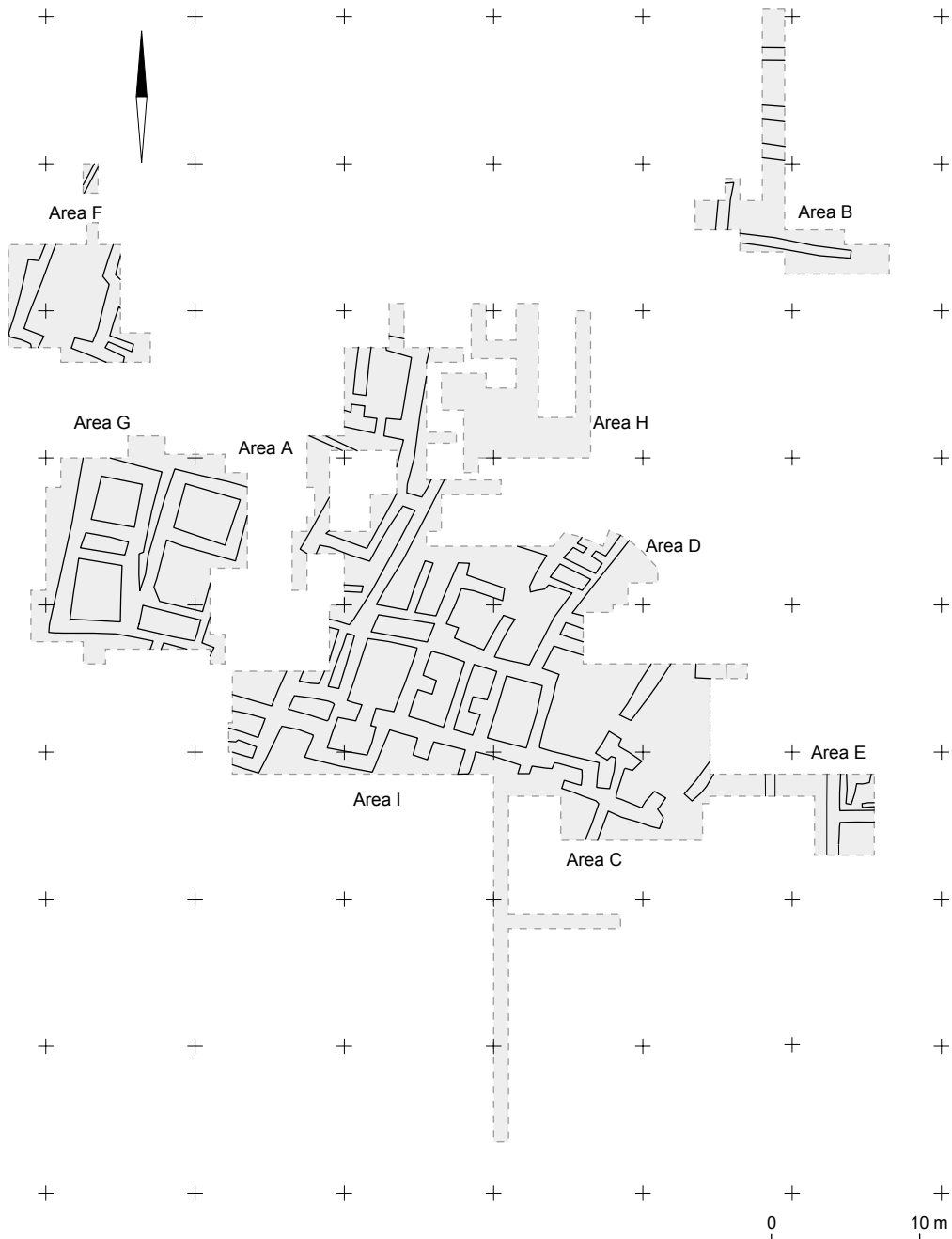


Figure 7.1: Plan of layer I at Erbaba with excavation areas, grid not original.

Most of the individual spaces seem to lack external doors, despite the fact that in some case building walls were preserved up to 1.57 metres in height (Bordaz and Bordaz 1982, 90). It would appear that at Erbaba, like at the other Central Anatolian Neolithic sites, the buildings were accessed from the roof, by means of a ladder (Bordaz and Bordaz 1976, 39). Internal doors, on the other hand, have been documented at the site.

In these two respects, the organisation of buildings in neighbourhood clusters and the absence of external doors, it is clear that we are dealing with a settlement that is part of the Central Anatolian Neolithic settlement format. Nonetheless the settlement of Erbaba differs from the other sites in the use of stone as a construction material.²⁴¹ As has been argued in chapter 3 (§3.2.1), the choice of stone as a construction material is far from obvious, and vernacular buildings of the villages in the Beyşehir region today are constructed of loam rather than stone. In this respect the preferred usage of stone at Erbaba calls for some form of explanation, which will be presented later in this chapter.

7.2.2 THE STONE BUILDINGS OF ERBABA.

The walls at Erbaba were constructed from stones that were bonded with a loam mortar. In some instances these walls were preserved up to 1.57 metres in height. In one building the rubble of collapsed walls was used to calculate that the walls of that particular building were originally at least 1.80 metres in height (Bordaz and Bordaz 1982, 89).

The limestone blocks used for wall construction seem to have been obtained from rock outcrops in the direct environments of the site. In some cases the walls seem to have been constructed on top of earlier walls in the same alignment (Bordaz 1969, 60), a practice that may be similar to that at Aşıklı Höyük (§4.6.1) and at Çatalhöyük (§6.6.1). The largest blocks, measuring up to 50 by 20 by 20 centimetres were placed at the bottom of the walls, and stones decreased in size in the higher reaches of the walls. The two outer wall faces were lined with the flat surfaces of stones, whereas the interior body of the wall was filled with smaller stones and mortar. In a number of cases walls were bonded to internal stone buttresses, although there are only a few unequivocal buttresses at the site.

Wall plaster is not reported in the Erbaba publications and may not have been part of the building technologies employed at the site (see fig. 3 in Bordaz 1969), but this could also be a matter of preservation. Most of the rooms at Erbaba were excavated to ca. 40 centimetres below the surface of the mound, and floors were only reached in a small number of rooms (Bordaz and Bordaz 1976, 39). This circumstance has as a consequence that little is known about the features located on the floors of these rooms, making it difficult to assess their nature and function. The floors were constructed of grey clay plaster, and are reported to be of poor quality. Up to ten successive floors were found in a single room (Bordaz 1969, 60).

The best documented floors have been reported from layers II and III. It is reported that clay benches, painted plaster architectural embellishments and ovens were found in area G (Bordaz and Bordaz 1978b, 21; 1982, 82). One of the ovens is described in more detail as a semi-oval structure measuring 1.15 by 0.62 metres, with a plaster floor, and an oven wall built of a combination of stones and clay (Bordaz and Bordaz 1982, 90). It is not entirely clear from the reports whether the layer I floors lacked similar features, or whether those floors were simply not exposed or preserved well enough.

²⁴¹ Domestic stone architecture has also been encountered at the site of Köşk Höyük, and possibly at Tepeçik-Çiftlik (Bıçakçı 2001), but these sites are probably to be dated to some centuries later than Erbaba, to the Middle Chalcolithic ca. 5500 – 4000 Cal. BC (§1.3.2; Öztan 2002, 56; Kuniholm and Newton 2002, *cf.* Thissen 2002a, 324).

Despite the use of stone as a building material the building practices at Erbaba seem to have been of a dynamic nature. For instance, mention is made of the insertion of walls within existing spaces in order to sub-divide them into smaller rooms, and the later creation of a door in a pre-existing wall (Bordaz 1969, 60; Bordaz and Bordaz 1982, 90).

Finally, the remnants of a fallen and burned roof were found in area C (Bordaz and Bordaz 1976, 40). These remains suggest that the buildings at Erbaba possessed flat roofs of loam on reeds similar to those found in the villages of Central Anatolia today (§3.4.5).

7.3.1 ROOMS OF STONE BUILDINGS

In this section the size distribution of the rooms, excluding the walls, at Erbaba will be discussed. If we plot these sizes (fig. 7.2) we can discern a bi-modal distribution of room dimensions: first, there is a group of small rooms, ranging between 2 and 6 m² in size; and, second, there are a number of larger rooms measuring between 6 and 16 m² in size. The rooms of the first group were probably used primarily for storage, given their limited size. Most of these rooms were no more than a metre wide and would have been unsuitable for most other purposes. The larger rooms could potentially have served domestic functions on the basis of their size range (§7.5.1), although they might equally well have served other purposes. For determining the nature and functions of rooms contextual data are indispensable. Unfortunately the contextual data from Erbaba are few (§7.4.1).

Comparing the interior room sizes of Erbaba with those from the other Central Anatolian Neolithic settlements, we can note that they are similar in mean size and distribution range to those of Aşıklı Höyük (§4.3.1), but smaller than those of Canhasan III (§5.3.1) and Çatalhöyük (§6.3.1). The limited size of the rooms at Erbaba is somewhat surprising given the fact that Erbaba is located close to sources of timber, and that the stone walls at the site must have good load bearing capacities.

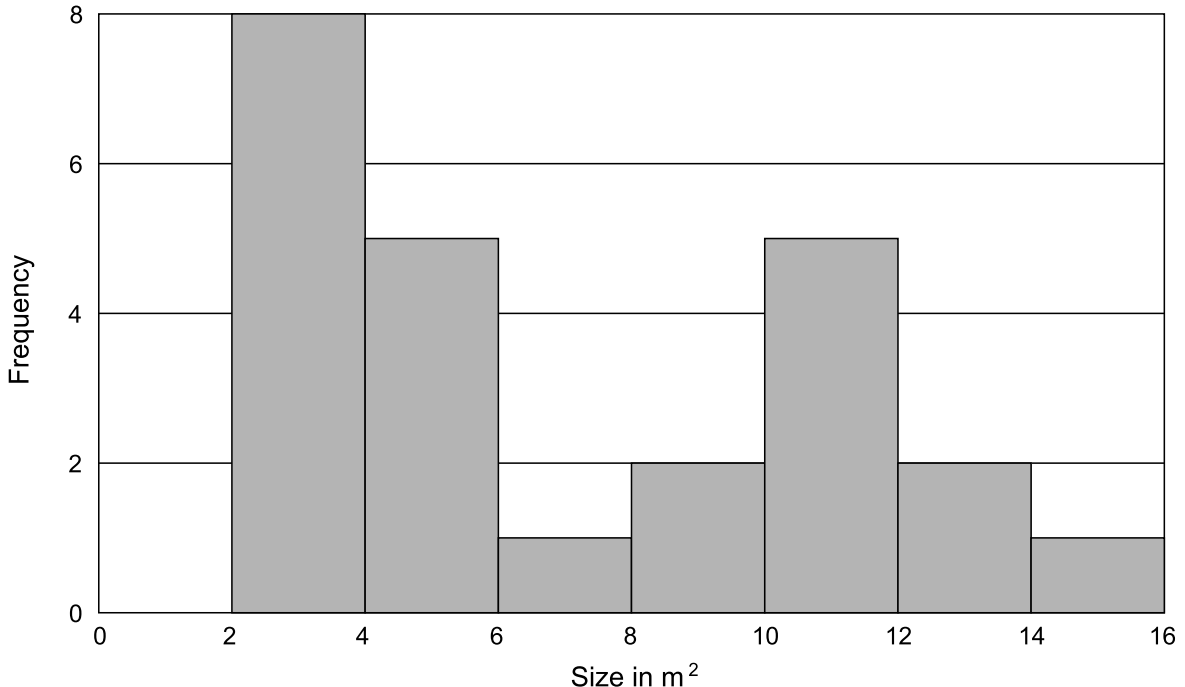


Figure 7.2: Interior sizes in m² of layer I rooms at Erbaba (n=24, mean=7.0).

One possible solution both for the fact that the room sizes are small and for the preference for stone as a building material at Erbaba could be that the buildings at the site had upper storeys. Although there is no positive evidence to support this, there is some circumstantial evidence, apart

from the constructional issues mentioned. It would explain the absence of floor features, the poor quality of floors noted by the excavators (Bordaz 1969, 60; Bordaz and Bordaz 1978a, 21; 1978b, 82), and the absence of wall plaster (§3.4.4). If this hypothesis is valid the plan of Erbaba would represent only the cellars of the settlement. Whether or not the Erbaba buildings had upper storeys can only be solved through future excavations, however.

7.3.2 DEFINING BUILDING UNITS AT ERBABA

Distinguishing building units at Erbaba is not a straightforward matter. In previous chapters on the Central Anatolian Neolithic settlements, such units were distinguished on the basis of two criteria: first, on the basis of the articulation of the outer walls, following the principle that each unit is surrounded by its own set of outer walls; and second, spaces were grouped together that were connected by doors or portholes. In addition to these two criteria, the formal and functional differentiation of spaces can sometimes be helpful in defining building units.

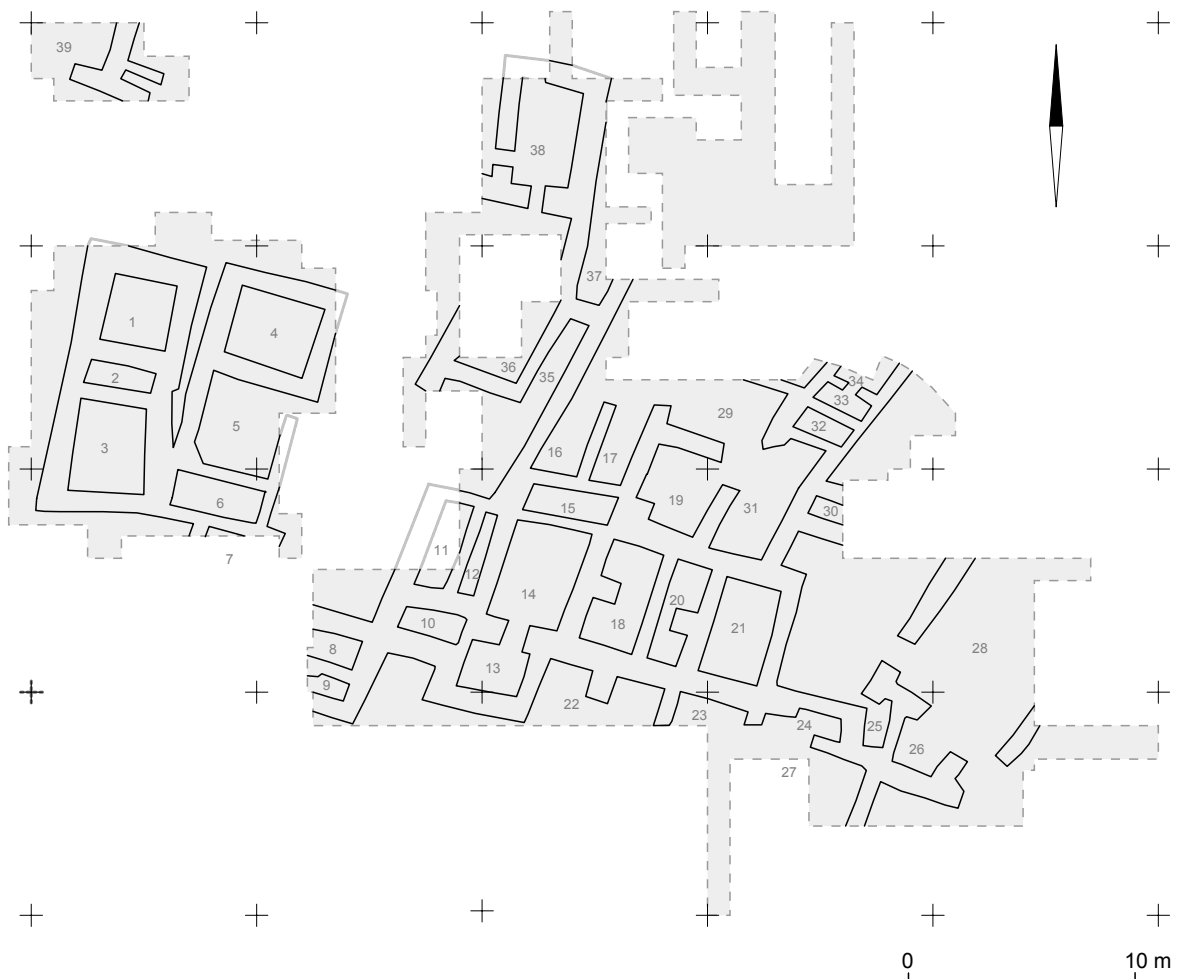


Figure 7.3: Plan of the central area of layer I at Erbaba, room numbers and grid are not original.

With the exception of two building units that will be discussed below, it is not possible at Erbaba to distinguish building units on the basis of the articulation of walls, since all of the plans published lack the resolution required for such an exercise. Many of the walls are more than a

metre in width, and it is plausible that some of these represent double walls. Such issues can only be solved on the basis of the primary documentation or by renewed excavations. It is presumably on the basis of such unpublished information that Bordaz and Bordaz (1976, 39; 1982, 87) distinguished 36 rooms belonging to 11 architectural units at Erbaba.²⁴²

On the basis of the extant evidence two building units with their own set of outer walls can be presently distinguished at Erbaba. One unit consists of rooms 1, 2 and 3, and another consists of rooms 4, 5 and 6 (see fig. 7.3). These two units are rather similar in size and composition. Their exterior sizes are approximately 62 m², whereas the total interior size of both units is 24 m² (unit 1/2/3), and 31 m² (unit 4/5/6) respectively. Both units have three rooms, one of which is rather small.

It is tempting to try to find building units of similar size ranges and composition in other parts of the settlement. For instance, rooms 18, 20, and 21 could have constituted a similar unit. However, such interpretations of the Erbaba plan impose a model on the data that cannot be substantiated on the basis of the documentation available.

Another way in which rooms may be connected is through interior doors or portholes. At Erbaba spaces 13 and 14 can be connected in such a manner, as well as spaces 33 and 34. The unit formed by 13 and 14 has an interior size of ca. 22 m² which is comparable to units 1/2/3 and 4/5/6. Doors are also visible in rooms 24, 25, 26, 28 and 38, but in all these cases the relation of these rooms to the surrounding spaces is unclear.

The sizes of the three most plausible building units at Erbaba (1/2/3; 4/5/6; 13/14) are in the range of 22 to 31 m², which is larger than those of Aşıklı Höyük (§4.3.3; §4.3.4), and Canhasan III (§5.3.2), but comparable to those of Çatalhöyük (§6.3.2), although individual rooms at Erbaba were smaller. If the buildings at Erbaba had upper storeys, as has been suggested in the previous section, the building unit sizes would have been even larger than those of Çatalhöyük.

7.4.1 SPATIAL DISTRIBUTIONS AT ERBABA.

The spatial distribution of features and objects over the settlement of Erbaba could potentially be used to recognise possible differences in the nature and uses of space. However, the data that are needed for such an analysis are not available. The fact that only a few well-preserved floors were found in layers II and III has already been mentioned. The fact that similar floor features have not been found in the larger layer I exposure could be related to: first, methods of excavation, Bordaz and Bordaz (1976, 39) note that in many cases excavations did not proceed to floor levels; second, to matters of preservation, although it is noted that in most cases floors were more than 40 centimetres below the mound surface (*ibid.*); and third, floors may not have contained many features because we are dealing with cellars. Of these three explanations the latter seems the most likely to me.

For the older layer II and III the existence of clay benches and ovens is reported, although further details of these features are not provided (Bordaz and Bordaz 1978a, 21; 1978b, 82). It is perhaps significant that one of the ovens was located in the south of the rooms, as was the custom in the contemporary buildings at Çatalhöyük (§6.4.6).

Apart from a few rather vague remarks on the existence of ovens and benches, it is not possible to discuss functional differentiation of the spaces at Erbaba. We can only conclude that in the older layers of the site there are some rooms that had features suggesting that they were used at least in part for domestic purposes. Further, there are painted plaster features that suggest that some buildings may have been elaborated in a manner similar to the buildings at Çatalhöyük.

²⁴² Several efforts to contact Louise Alpers-Bordaz in order to get access to these data have unfortunately failed to deliver.

7.5.1 DEFINING DOMESTIC UNITS

Given the absence of evidence on features in the buildings at Erbaba, a social interpretation of the building units at the site must proceed on the basis of the dimensions of these buildings alone. In the course of this study different types of spatial arrangements have been encountered. At Aşıklı Höyük, households seem to have used a group of fragmented spaces dispersed across the neighbourhood (§4.5.1). By contrast, at Çatalhöyük, households seem to have occupied distinct buildings (§6.5.2). At both these sites it was argued that buildings were owned collectively by the neighbourhood group, rather than by individual households, but in the upper levels V-I at Çatalhöyük houses seem to have become the property of individual households. From this summary, it is apparent that there was a considerable amount of variability in the ways households related to the spaces that they inhabited, and we cannot assume *a priori* that one model or another is the most appropriate for Erbaba.

If we apply the cross-cultural averages that relate roofed floor surface per person to the room dimension and the units at Erbaba (see table 7.1), we can note the following issues. Whereas the smaller room below 6 m² in size would probably have been too small to function as household residences, the larger rooms and the building units would probably have been large enough to house nuclear families of four to five people. If the Erbaba buildings had (partial) upper storeys, roofed space per person would have been even larger.

Room / unit	Size in m ²	Naroll 1962	Cook and Heizer 1968	Casselberry 1974
Smallest	6<	0.6	2.6	1
Average	11	1.1	4.8	1.8
Largest	16	1.6	7	2.7
1/2/3	24	2.4	7	4
4/5/6	31	3.1	7.7	5.2
13/14	22	2.2	7.4	3.7

Table 7.1: Population estimates for the larger Erbaba rooms, and of the three building units using three formulae that relate roofed floor area to the number of inhabitants.

These figures inform us simply on a cross-cultural estimate of how many people could have potentially been associated with buildings at Erbaba, but they do not inform us as to the actual uses to which these spaces were put. Although the comparable size ranges of units 1/2/3, 4/5/6 and 13/14 could suggest that the settlement of Erbaba was constituted by modular buildings in manner similar to Çatalhöyük, and this could indicate that these were residences of distinct households, nothing much can be reconstructed in the absence of more contextual evidence that could inform us on the spatial organisation of the storage, production, and consumption of subsistence goods.

7.6.1 ESTIMATING THE ERBABA POPULATION

This estimate is much more tentative than the estimates provided for the other settlements in this study (§4.8.1; §5.7.1; §6.8.1). The excavators of Erbaba have estimated the size of the site at 5,000 m² (Bordaz and Bordaz 1976, 39). The only excavation area that is reasonably clear is area G (fig. 7.1). Here, in an exposure of 168.75 m² we find two building units (1/2/3 and 4/5/6), which potentially could each have been used by a household of five people. Extrapolating this to the site at large would result in a maximum total population of 380 people.²⁴³ However, it is plausible that even during the densest occupation of the site between 25 and 50 % of the site would not have been

²⁴³ Area G measures 168.75 m², which is 2.63 % of the total site surface. If 10 people live on 2.63 %, 380 would have lived on the complete site.

occupied, thus the real maximum population would probably have been closer to 190 and 285 people.²⁴⁴

In the previous chapters it has been argued that the clustered neighbourhoods of the Central Anatolian Neolithic would typically have housed a group in the size range of 150 to 200 people (§4.7.1; §6.7.1). If the same is true for Erbaba this would mean that at this site, the complete population could potentially have lived in a single neighbourhood, or at most two of these. Thus the scale of the local community would have been radically different from sites such as Aşıklı Höyük, with 10 to 15 neighbourhoods, and Çatalhöyük, with 27 to 53 neighbourhoods. In relation to this difference it is of interest to note that Erbaba is one of many small settlements of its kind located in the Beyşehir region, whereas both Aşıklı Höyük and Çatalhöyük were singular, isolated settlements (§7.1.1; Mellaart 1961; Thissen 2002b, 18). This could imply a fundamentally different organisation of communities, which were concentrated in a single large settlement at Çatalhöyük, but dispersed across a number of smaller settlements in the Beyşehir region.

7.7.1 THE SPATIAL CONFIGURATION OF THE ERBABA SETTLEMENT

Given the limited size of the exposures and the dispersion of the trenches over the site, analysing the spatial configuration of the Erbaba settlement is a problematic exercise. At present we can distinguish interior spaces, exterior spaces, and a number of areas whose status is ambiguous due to the poor resolution of the published plans. What is lacking completely at present is a street or alley that defines the neighbourhood cluster in any direction. If the argument that the whole population of Erbaba could have lived in a single clustered neighbourhood (previous section) holds true, such streets and alleys might have not have existed at the site, and the whole settlement would have been one large cluster of buildings with interspersed enclosed open spaces. While this hypothesis cannot be tested without further research, it can be noted that all the buildings exposed at Erbaba share a similar orientation (Bordaz and Bordaz 1976, 39), which could imply that they were part of the same neighbourhood, although this need not have been the case (§6.5.3).

Nothing is known about the qualities of the roof interface at Erbaba, which would have constituted the main exterior component of settlement space. On the one hand we could imagine a situation similar to Çatalhöyük, with flat loam roofs that were also used for a variety of domestic and craft activities and would have been the main arena for social interaction during the hotter part of the year. On the other hand, many buildings at Erbaba might have had (partial) upper storeys (§7.3.1), and this would have changed the morphology of the roofscape, and the multifarious ways in which that was used, which we cannot reconstruct in the absence of evidence.

7.7.2 ACCESS PATTERNS AT ERBABA

Creating an access plan for Erbaba is much more problematic than for the other sites in this thesis, for reasons already mentioned in the previous section. Consequently the access plan presented in figure 7.4 should be considered an effort to describe the ambiguous data from Erbaba, rather than as a representation of the access patterns that shaped traffic during the Neolithic occupation of the site. Nonetheless, two conclusions can be drawn from such an exercise.

First, it is clear that there are a number of spaces at Erbaba that could only be reached via the roofs of adjacent built spaces. At Erbaba this can be demonstrated for rooms 12, 14, 15, 18, and 20. Second, the dense manner of building at Erbaba in combination with the small size of the rooms results in very integrated access pattern, in which most of the spaces can be reached from a large number of other spaces.

Although the plan of Erbaba does not allow us to study access patterns at the site at a more detailed level, the access plan appears to be similar in many ways to those of Aşıklı Höyük, Canhasan III, and Çatalhöyük, reinforcing the idea that Erbaba belongs to the same group of settlements, and was constructed on the basis of similar culturally defined preferences for living in

²⁴⁴ 50 and 75 % respectively of 380.

clustered neighbourhoods that would have structured daily interaction of residents in a profound manner.

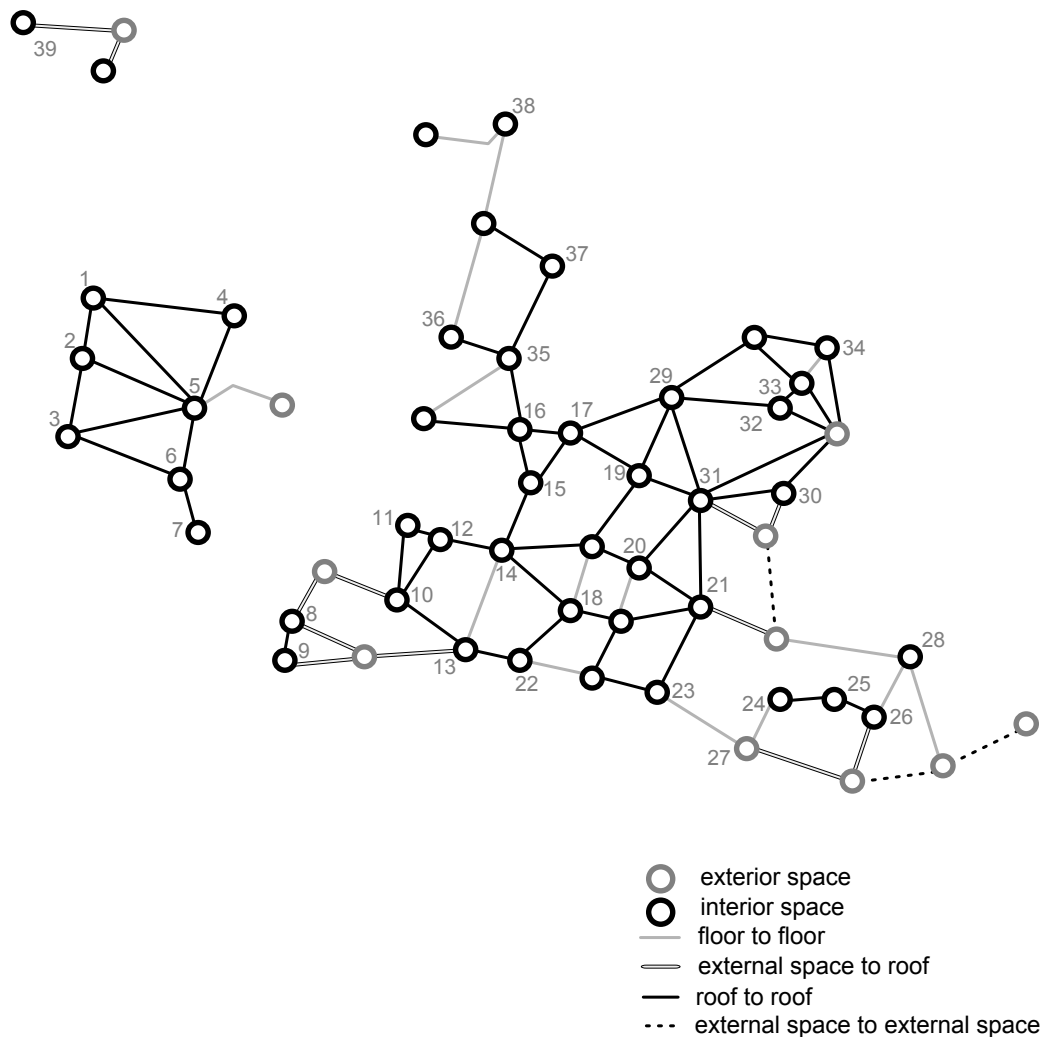


Figure 7.4: Access plan of layer I at Erbaba.

7.8.1 SOCIAL DIMENSIONS IN THE ERBABA SETTLEMENT

Although the evidence we have for the Erbaba settlement is far from ideal, a few conclusions may be drawn from the discussions in this chapter. First, the total population of Erbaba seems to have been much smaller than that of the other sites discussed so far. The maximum total population would have been in the range of 190 to 285 people. Given that the clustered neighbourhoods of the Central Anatolian Neolithic at other sites would typically have been inhabited by between 150 to 200 people, Erbaba could have been a settlement consisting of a single clustered neighbourhood, or perhaps two of these. This is a local community radically different in scale from those inhabiting the settlements of Aşıklı Höyük and Çatalhöyük, with between 10 to 15 and 27 to 53 neighbourhoods respectively. In this regard, it is to be noted that many more small sites contemporary to Erbaba have been located in the Beyşehir region, whereas both Aşıklı Höyük and Çatalhöyük seem to have been singular in their landscapes.

Second, a number of factors, including the fact that stone was used as a building material, the poor quality of floor plasters, the scarcity of *in situ* features except in the older layers II and III, the absence of wall plaster, and the small size of the rooms at Erbaba, all seem to indicate that many buildings might have had upper storeys. While this hypothesis must remain tentative in the absence of further research at the site, it fits with a similar development occurring at Canhasan I, which will be dealt with in chapter 8. If upper storeys were introduced at Erbaba, and living quarters were moved upstairs, this would have had major effects on the configuration of settlement space at the site, and our ability to study that archaeologically. Further, the fact that floors with *in situ* features were found in the earlier levels might indicate either the co-existence of single and two storey structures, or the development of the latter in the course of the occupation of the site. The limited description of these floors with *in situ* features suggest that the level II and III buildings may have been similar in many ways to those of Çatalhöyük.

Third, although only a few building units could be distinguished at Erbaba, their internal sizes, which range from 22 to 31 m², are larger than those of Aşıklı Höyük and Canhasan III, and similar to those of Çatalhöyük, although consisting of multiple smaller rooms. On the basis of cross-cultural estimates of roofed floor area per person these could potentially have served as household residences of some four to five people. Further, if these buildings had upper storeys, roofed floor areas per building would have been even larger. However, in the absence of contextual evidence such social interpretations of buildings at Erbaba must remain tentative.

In conclusion, the Erbaba settlement constitutes a clear example of the clustered neighbourhood settlements that are the focus on this study. Buildings are constructed in a close conglomerate, were accessed via the roofs by way of ladders, and lacked exterior doors. The people at Erbaba had culturally defined preferences for a particular type of settlement, which they shared with the people living at Aşıklı Höyük, Canhasan III, and Çatalhöyük, and which structured their daily lives in a profound manner. At the same time, the Erbaba settlement differed in some respects from those other settlements. First, the settlement seems to have been much smaller in size, and to have participated in a wider network of similar small settlements. Second, I have put forward some arguments for the existence of upper storeys at Erbaba, and if this reconstruction is correct this marked a departure from earlier building practices in the Central Anatolian Neolithic.

CHAPTER 8: THE CANHASAN I SETTLEMENT

The site of Canhasan I is the latest archaeologically investigated exemplar of the Central Anatolian Neolithic clustered neighbourhood settlements. The settlement of Canhasan I can be described as a hybrid that combines elements of the Central Anatolian Neolithic settlements, as documented at the sites of Aşıklı Höyük, Canhasan III and Çatalhöyük, with one in which two storey buildings become the norm. The Canhasan I data allow us to study one trajectory of the transformation of a clustered neighbourhood settlement.

8.1.1 GEOGRAPHICAL SETTING

The Canhasan I site is located in the Karaman plain, on the eastern bank of the former Selereki River, which disappeared in the recent past (Roberts 1983, 163-5), and opposite the Canhasan III site discussed in chapter 5. The landscape surrounding the site is a flat plain which receives about 300 mm of rainfall per year. The assumed natural vegetation for this region is an open steppe with some shrubs (Van Zeist and Bottema 1991, 24-5). Today the region is subjected to intensive irrigation agriculture, but for rain-fed agriculture this area is marginal, and in the recent past it was used mainly for pastoralism (Hütteroth 1968; Roberts 1990; French 1998, 2).

The Canhasan I site measures about 360 by 280 metres, is approximately 9 ha in size, and rises some 5 metres above the surrounding plain. Canhasan I is large for a Chalcolithic site. The site of Çatalhöyük West is very similar in size, measuring ca. 8 ha, but 14 other sites in the surrounding region are markedly smaller, averaging at 1.6 ha. It has been argued on that basis that Çatalhöyük West may have been a central place in the larger settlement system (Baird 2002, 150). Although much less is known about the occupation of the region around Canhasan I in the Chalcolithic it may have been a similar type of central settlement.

8.1.2 RESEARCH HISTORY

The site of Canhasan I first became known through a survey performed and published by Mellaart (1954), in which he presented a number of shards and assigned the site to the Early Chalcolithic period. The site was subsequently surveyed more intensively in 1958 by Mellaart, French and Hall, but the data obtained in that survey have not been published.

Excavations were undertaken at the site on a yearly basis from 1961 to 1967, totalling seven campaigns, under the direction of David French on behalf of the British Institute of Archaeology at Ankara. French published a series of preliminary reports in *Anatolian Studies* subsequent to each campaign (1962; 1963; 1964; 1965; 1966; 1967; 1968), in his characteristic terse style. Recently, two final publications on the site have appeared (French 1998; 2005), dealing with the stratigraphy and structures found at the site.²⁴⁵ In many ways the 1998 publication is no more than a sum of the preliminary reports, as acknowledged by French (1998, v), but nonetheless the book was of great value while working on this chapter.

During the seven excavation seasons an exposure of approximately 1080 m² was excavated at Canhasan I, and approximately 25 buildings were investigated in total.²⁴⁶ In comparison to the excavations carried out at Çatalhöyük by another British team during the 1960s, this exposure was rather limited in size (§6.1.4). This is related to a more careful method of excavation developed by

²⁴⁵ The most recent of these (French 2005) was not available in time to be included in this study.

²⁴⁶ The field team in the Canhasan I excavations consisted of 7 people in 1961 (10 day campaign), 9 people in 1962 (31 days), 7 people in 1963 (16 days), 12 people in 1964 (35 days), 8 people in 1965 (36 days), 10 people in 1966 (32 days), 11 people in 1967 (50 days). In total approximately £4,500 were spend on these excavations.

French in the course of his investigations at Canhasan I. The excavations started out with a methodology commonly used in Near Eastern archaeology, in which the digging was done by experienced workmen with large picks, and in which artefacts and ecofacts were hand picked. Gradually this manner of digging was replaced by the use of smaller picks, the dry sieving of all soil and a much more detailed supervision and documentation of deposits by trench supervisors (French 1998, 8-10). This method of excavation resulted in a much slower rate of progress, but the retrieval of artefacts and ecofacts, as well as the resolution and understanding of the deposits and stratigraphy was much enhanced. In the field of Near Eastern archaeology the methods developed by French have been of lasting importance for the further development of the discipline (*cf.* §5.1.2).

8.1.3 STRATIGRAPHY AND CHRONOLOGY

French uses a very precise terminology for his stratigraphical divisions (1998, 19). Eight Prehistoric layers were distinguished at Canhasan I. These layers stand for a general occupation horizon that can incorporate a number of building levels, designated levels. Levels consist of one or more contemporary structures, and can be further sub-divided into a number of phases that consist of minor alterations to a structure. The stratigraphy of Canhasan I is summarised in table 8.1.

layers	levels	culture history (French 1998)	culture history (Thissen 2000)
1	5	Late Chalcolithic	Middle Chalcolithic
2A	3	Middle Chalcolithic	Early Chalcolithic
2B	1	Transitional Early -Middle Chalcolithic	Early Chalcolithic
3	1	Early Chalcolithic	Early Chalcolithic
4	1	Late Ceramic Neolithic	Late Ceramic Neolithic
5	1	Late Ceramic Neolithic	Late Ceramic Neolithic
6	1	Late Ceramic Neolithic	Late Ceramic Neolithic
7	1	Late Ceramic Neolithic	Late Ceramic Neolithic

Table 8.1: The Canhasan I stratigraphy and chronology according to French (1998) and Thissen (2000).

The earliest remains of occupation excavated at Canhasan I, layers 7-4, have been assigned to the Late Ceramic Neolithic. Virgin soil was not reached in the excavations, and it is not clear how far back in time the occupation sequence at Canhasan I began (French 1998, 20). Subsequently, layer 3 has been assigned to the Early Chalcolithic period. Whereas layers 7-3 were excavated in limited exposures, measuring less than 100 m² in size, layer 2 was exposed over a larger area, measuring approximately 840 m².

The buildings exposed in layer 2 were initially interpreted as constituting one layer, but were later subdivided into layers 2B (older) and 2A, both of which have several levels. French assigned Layer 2B to the transition from Early Chalcolithic to Middle Chalcolithic, whereas he dates 2A to the Early Chalcolithic. After the 2A occupation the site seems to have been abandoned for some centuries. The layer 1 occupation was assigned by French to the Late Chalcolithic period. Finally, more ephemeral traces of later periods, including the Byzantine and Classical Ages were found, and designated Post-Chalcolithic 1-5.

Thissen (2000, 90-5) has argued that layers 2B and 2A both belong to the Early Chalcolithic, and that layer 1 should be dated to the Middle Chalcolithic. It is difficult to date layer 1 in the absence of radiocarbon samples taken from this level, and of good sequences for the Middle Chalcolithic periods in Central Anatolia (§1.3.2). Layer 1 will not be part of this analysis because the settlement remains of this layer are not of the clustered neighbourhood format. The radiocarbon dates from layers 2B and 2A do seem to confirm an Early Chalcolithic date for these layers (§8.1.4).

The Canhasan I stratigraphical sequence is in many ways problematic and difficult to conceptualise. Two interrelated factors contribute to these problems. The first factor concerns

changes in interpretations and perspectives that occurred in the course of the ongoing excavations and the subsequent process of analysis and publication. As a result many buildings were re-assigned to other layers (see table 8.2). Such re-assignments are common in Near Eastern archaeology and reflect the constant dialectic that takes place between the preliminary hypotheses of the archaeologists and the excavated deposits they work on. Invariably projects start out with fairly simple stratigraphies, which become more and more problematic as the excavated area increases in size (§3.5.1; §6.1.8). I have argued that such problems in stratigraphy in most cases demonstrate the quality of an excavation, rather than the reverse. The paradox of field archaeology is that detailed excavations tend to result in problematic and complex data sets, whereas less intensive and secure work produces smoother stratigraphies and contextual associations.

original assignation building	re-assignation building
Layer 3.structure in S24c	2B.10 (eastern part)
Layer 2B.structure in Q21d	2A.1
Layer 2B.8	2A.2
Layer 2B.structure in Q22d/Q23b	2A.3
Layer 2B.structure in Q23d	2A.4

Table 8.2: Stratigraphic re-assignments of buildings at Canhasan I.

A second factor causing problems in the Canhasan I sequence is related to the nature of the archaeological deposits at the site. This argument may seem peculiar, but it will be shown that the people of Canhasan I were engaged in practices that have complicated the nature of the archaeological record considerably. Here two such practices and problems that are related to them will be discussed. The first concerns the practice of ‘insertion’, the second terracing activities in which older buildings were removed.

From the outset of the excavations at Canhasan, French recognised a Middle Chalcolithic 2A layer with distinctive pottery that was found in a variety of deposits, including pits and deposits of debris and ash. Many of these deposits were found over and within buildings of the earlier layer 2B buildings. However, no substantial structures that could be associated with this layer 2A pottery were found, and in 1966 French noted: “The problem which still remains unsolved after five years of excavation over an area of more than 1100 square metres is: where was this settlement?” (1966, 115).

The problem was partly solved in the following season, when it was realised that some of the structures that had been assigned to layer 2B, could in fact be assigned to layer 2A. When it became clear that the building thus far designated 2B.8 was in fact a layer 2A building, this brought about the transfer of a whole series of structures located on the western edge of the plan to layer 2A on similar grounds. It appeared that all these layer 2A structures were superimposed on top of layer 2B buildings (French 1968, 169). In the final report on the stratigraphy and structures of the site French explains the rationale behind these re-assignments.

He argues that some of the layer 2A buildings were ‘inserted’ into existing layer 2B structures. This ‘insertion’ was achieved by constructing structures within extant older buildings, although in some cases this procedure involved removing some of the earlier walls and features.²⁴⁷ The inserted structures that were built in this way do not damage the surrounding buildings, and follow the alignment of the settlement in general. Apart from the practice of inserting buildings within older structures, French also found evidence for another practice in which buildings were fitted into a pre-existing settlement configuration. In some cases where buildings were located on

²⁴⁷ For a description of a similar well-documented case of (double) insertion in a different cultural context, at Nevalı Çori, in the PPNB of Upper Mesopotamia, see Hauptmann (1993).

the edge of terraces, they seem to have been completely removed, whereas the walls of neighbouring structures were left intact. Subsequently a new structure was built within the newly acquired open space. Both with the insertion procedure with the complete removal of buildings, the newly inserted structures were made to fit into the older settlement and are thus exceedingly hard to differentiate from older structures, which explains the re-assignments of these buildings in the course of the excavations.²⁴⁸

The prime issue that French does not solve in his final publication on the stratigraphy and structures of Canhasan I is the relation between the building remains of layers 2A and 2B. The issue is whether the 2B buildings that were not replaced by 2A insertions and/or terracing activities continued to be in use alongside those of layer 2A, or whether they were no longer inhabited. French opts for the latter position, stating that: “in the core or heart of layer 2B occupation (structures 1-6) there is no evidence for structural re-use, in layer 2A, of an area occupied in layer 2B” (French 1998, 65).²⁴⁹

This interpretation has one important problem. If it was indeed the case that the buildings of layer 2B were already in disuse and falling apart, why were the layer 2A buildings inserted carefully into the older settlement structure, respecting the walls of adjacent structures? It would make much more sense to level the 2B buildings, by cutting the upper part of the walls horizontally and filling up the space in between, in a manner similar to that documented for Çatalhöyük (§6.2.3), in order to create a platform upon which to build a new structure. A very similar procedure is noted at Canhasan I for the abandonment of the layer 3 structure, upon which 2B.7 was subsequently built: “the layer 3 house was filled in, the tops of walls cleanly sliced off, the area filled in and levelled” (French 1998, 26). Indeed this is the procedure that seems to have normally been used in the clustered neighbourhood settlements of the Central Anatolian Neolithic (§3.4.2).

However, the sort of insertion procedure described by French would make sense if the 2A structures replaced some of the older 2B structures, while coexisting with others. In such a view the division between the two layers is less rigid than envisaged by French. Rather than a wholesale reconfiguration of the settlement, as envisaged in many traditional stratigraphical phase plans of settlements, this would fit with the piecemeal fashion in which ethnographically documented loam built villages have been documented to change (§3.5.1; §6.1.8; Peters 1982, 226).

In the settlement of Canhasan I this would mean that some of the buildings were renovated by inserting a new set of walls in front of the existing walls of a building, possibly because a particular structure was no longer perceived as structurally sound or because there was a desire to modify a building in one way or another.²⁵⁰ In such a model most alterations to buildings would have been isolated events unconnected to those of the surrounding buildings.

These considerations enable a reinterpretation of the layer 2B – 2A transition. Rather than an exclusive shift from one phase of the settlement, in which 2B buildings were abandoned and some 2B buildings were reused for the insertion of 2A structures, as has been argued by French, we can see the two layers as evidence for two overlapping phases of the same settlement. From my perspective, the idea of 2A as a discreet layer is questioned, for it implies that all the insertion and deep terracing activities in the 2B buildings took place simultaneously. Instead, it seems more plausible that these operations took place over an extended period of time, in order to accommodate the changing demands of the people that lived in them, and in order to improve the condition of the structures that they inhabited.

This interpretation can be enhanced by the observation that even within the layers 2B and 2A, multiple phases are present. Some structures in the settlement are clearly fitted into existing spaces defined by the earlier buildings. For instance, the north-eastern corner of building 2B.4 was

²⁴⁸ A similar case for insertion has been argued for room VIB-11 / Space 160 at Çatalhöyük (Farid in prep).

²⁴⁹ Compare also French (1998, 50 – point 4).

²⁵⁰ At the site of Çatalhöyük the construction of walls in front of pre-existing walls is a common practice that is probably related to a desire to extend the use-life of a building that had become unsound (Farid in prep).

adjusted to the older structure 2B.6 (French 1998, 34), and similar adjustments are present in the western wall of 2B.1, the eastern wall of 2B.7 and the northern wall of 2B.10. Following these clues we can suggest a building sequence as presented in figure 8.1.

One major drawback of using wall adjustments for phasing purposes is that the walls may have been adjusted in previous layers, and these adjustments might have been subsequently reproduced in later layers, because the buildings of the Central Anatolian Neolithic tend to reproduce earlier predecessor structures (§4.6.1; §6.6.1). Thus it could be the case that the wall configurations of level 2B are not informative for the building sequence in layer 2B. The sole purpose of figure 8.1, however, is to demonstrate that building was a dynamic process at Canhasan I, rather than a sporadic renewal of a large area at any one time.

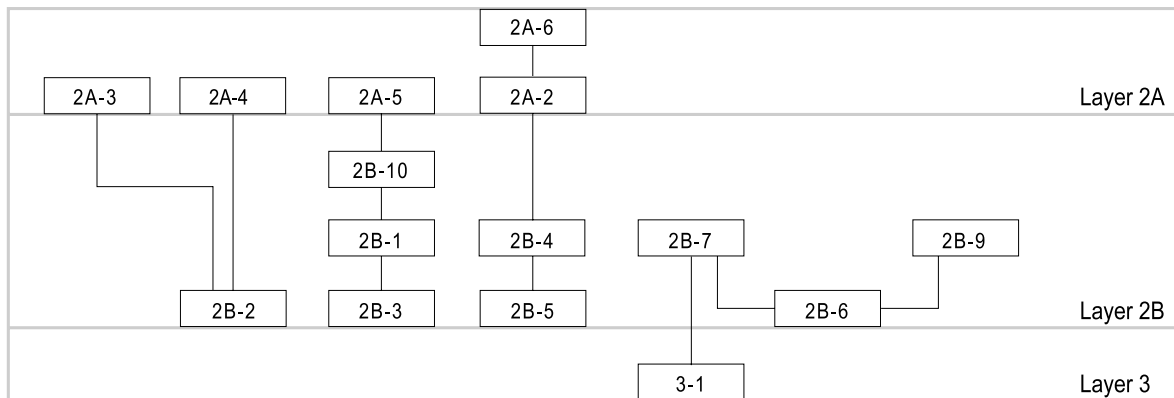


Figure 8.1: Schematic Harris matrix of the layers 3, 2B and 2A buildings of Canhasan I.

8.1.4 ABSOLUTE DATING AT CANHASAN I

To date, 9 radiocarbon dates have been published for Canhasan I. All of these dates stem from layers 2B and 2A, which means that both the earlier layers 7-3 and layer 1 can only be dated on the basis of comparative methods. Calibration of the 9 radiocarbon dates from layers 2B and 2A results in a cluster of 8 dates that have a range of ca. 6000-5600 and one outlying date of 5300-5100 Cal. BC, which seems to be unreliable (Thissen 2002a, 326-7). Given that layers 7-4 have monochrome pottery and that they precede the Early Chalcolithic layers 2B and 2A, they can be tentatively dated to the Late Ceramic Neolithic. Layer 3 has the first painted pottery, and can be considered to belong to the initial Early Chalcolithic. Layer 1 is more difficult to date at present, in the absence of absolute dates or artefacts that can be dated to a specific culture historical horizon.

8.1.5 ARTEFACTS AND ECOFACTS

The most important finds category at Canhasan I consists of pottery. The wares from layers 7-5 are described as burnished and dark brown to reddish in tone. Simple shapes, such as hole mouth jars, and open bowls predominate. Most vessels have out-turned rims and developed bases are common. On the basis of these characteristics French dates this assemblage to the final Ceramic Neolithic (1967, 176). The pottery from layer 3 is considered transitional, and contains both monochrome Neolithic ceramics and painted Chalcolithic pottery. The latter is of two kinds: first, red or brown paint on a buff clay; and, second, bright red paint on a white slip (French 1968, 48). The painted decorations are mostly chevrons applied in horizontal bands. Shapes are predominantly open with a carination near the base of the vessel.

The pottery dated to layer 2B is designated 'Early Chalcolithic' by French, and is subdivided into three levels. The first two levels have red on cream painted wares similar to those of Çatalhöyük West, alongside heavy burnished ware. The third, and latest, level also has red on cream painted ware, but the heavy burnished ware is missing. Instead fine burnished and incised

ware is found, as well as some dark on light painted ware. In the subsequent layer 2A, dark on light painted ware becomes predominant in the painted assemblage. Motifs consist, among others, of chevrons and net patterns. Apart from the painted ware there is a substantial amount of plain, dark pottery that is sometimes burnished or incised.

Layer 1 pottery is assigned to the Late Chalcolithic period by French (but see Thissen 2000, 90-5), and differs completely from that of the earlier layers. Painted pottery is nearly absent, and the predominant fabric is a red and black burnished ware. Amongst the distinctive characteristics are horned handles, and loop handles rising above the rim.

Very little has been published on the other types of artefacts found at Canhasan I, although a variety of objects feature on various websites supposedly deriving from the site. Amongst the most attractive objects published are a group of carved shell pendants (French 1963, pl. 2.). Animal figurines, pendants, spindle whorls and pot-stands made of clay are mentioned. Figurines are also made of stone. A copper mace-head was found. Bone was used for beads, armlets, fishhooks, palettes etc. Stone was used for grinding stones, pestles, mortars, polishers etc. The chipped stone industry is not described in any other way than as being 'simple'.

The botanical remains of Canhasan I include hulled six-rowed barley and field pea (Renfrew 1968). Sheep seem to dominate the faunal assemblage. According to Perkins and Daly (1968, 104) bovids were domesticated at Canhasan I.²⁵¹

8.2.1 THE CANHASAN I SETTLEMENT

The most extensive exposure at Canhasan I is that of layers 2A and 2B. A clustered neighbourhood of approximately 15 buildings was exposed (see fig. 8.2). As far as can be ascertained, these buildings seem to be surrounded on all sides by other buildings. Open spaces, be they peripheral to the neighbourhood or internal to it, have not been found. This absence of open spaces is probably determined by the limited size of the excavated area at Canhasan I.

What is evident from the extant plan, however, is that Canhasan I is an example of the clustered neighbourhood settlements of the Central Anatolian Neolithic that are the subject of this study. Many buildings were completely surrounded by other buildings and could only have been reached via adjacent structures. In addition, external doors are completely absent in Canhasan layers 2B/A, and this suggests that the structures were entered from above.

Apart from these characteristics linking the settlement of Canhasan I to the other settlements that have been discussed in this analysis, there are also a number of elements in which this site is divergent. The most obvious features peculiar to Canhasan I are the many internal buttresses that characterise these buildings, and it will be argued in this chapter that these are simply the most visible manifestation of a wider set of changes in building technologies. Second, I would like to point to the variability in sizes and organisation of space of the layer 2B buildings at Canhasan I. Both characteristics are related to the construction of two storey structures at the site, and this will be discussed in more detail in the following section.

²⁵¹ However, given that Perkins (1969) reached similar conclusions for the Çatalhöyük bovids which have since been disproved (Ducos 1988; Russell and Martin 2005, 55), these conclusions should be treated with due caution.



Figure 8.2: Plan of layers 2B and 2A (in grey) at Canhasan I, room designations not original.

8.2.2 THE CANHASAN I BUILDING TECHNOLOGIES

The Canhasan I sequence provides an important transition in building traditions from the traditional Central Anatolian Neolithic buildings found at Aşıklı Höyük, Canhasan III and Çatalhöyük, to one in which two storey buildings become the norm. There is a range of elements that distinguish the two building traditions, including the nature of the ‘bricks’ that are used, the employment of buttresses and posts, plaster practices and the abundance of internal features. It will be argued that all these elements are connected to the development of second storeys that came to be used as living quarters, whereas the ground floor was no longer important for dwelling purposes.

Earlier in this study I have shown that the buildings of Aşıklı Höyük, Canhasan III and Çatalhöyük were constructed with loam slabs, rather than the mould shaped sun-dried loam bricks that are the most common building material today (§3.3.2; §4.2.2; §5.2.2; §6.2.4). These slabs are often of limited height and width, whereas their length can be as much as 1.20 metres. Due to these characteristics, the structural strength of these slabs is limited, as are the walls constructed with them.

In the Late Ceramic Neolithic layers 7-4 at Canhasan I, the bricks were made of clay mixed with chaff and/or chopped straw. The loam bricks were approximately 50 by 30 by 8 centimetres in size, but there is a considerable amount of variability (French 1998, 21). These loam bricks were probably of better quality than the slabs found at Aşıklı Höyük and Çatalhöyük. At Canhasan I we can follow the development from buildings constructed with these loam bricks to later more solid structures built with mould-shaped loam bricks from layer 3 onwards. In this process the quality of the loam bricks was enhanced considerably, by introducing loam bricks of standardised sizes and greater width. The use of these loam bricks enhanced the load bearing capacities of the walls considerably. Furthermore, the header-and-stretcher technique of bonding first came into use in layer 2B at Canhasan I, which gave the walls additional structural strength. Finally, buttresses and posts were introduced in layers 3 and 2B. The posts were aligned between buttresses (buildings 2B.2 and 2B.3), and would have supported roof beams placed on top of those buttresses.

All of these measures enhanced the load bearing capacities of the Canhasan I buildings, suggesting that some form of extra load rested on top of these structures that had been absent earlier. It is logical to interpret this extra load as upper storeys, which would place their introduction at Canhasan I in the latest Neolithic and the earliest Chalcolithic.²⁵² This conclusion can be corroborated using evidence of various kinds, including: first, the remains of collapsed upper storeys; second, walls that were preserved up to the wall base of the second storey; third, on the exterior / interior size ratio of rooms; and fourth, the nature and contents of the ground floor spaces excavated.

Many of the buildings of the layer 2B at Canhasan I contained the remains of collapsed upper storeys, whereas such remains were not found in the Neolithic layers 7-4. Building 3 of layer 2B contained painted wall plaster that was found in association with some pottery on top of the collapsed remnants of the upper floor (French 1998, 34). A similar deposit of pottery situated on the collapsed floors of the upper storey was found in buildings 5 and 6 (*ibid.*, 36).²⁵³

The preservation of the buildings of layer 2B was exceptionally good. Some of the buildings were preserved to substantial heights of up to two metres (see table 8.3). The circumstances that led to this good state of preservation will be discussed later in the text (§8.3.1). Here we will focus on the issue of second storeys. The upstanding walls are a unique opportunity to study upper floors on the basis of direct observations, rather than through inferences.

²⁵² In chapter 7 it has been argued that upper storeys existed at Erbaa earlier, in the Late Ceramic Neolithic period (§7.3.1).

²⁵³ Such finds of objects on top of collapsed ‘upper storey floor’ remains are not in themselves a conclusive argument for the existence of upper storeys, because they could simply reflect activities that took place on an open roof surface (see also chapter 6). However, in the argument presented here these finds are only one element in the consideration of a range of factors that point to the existence of upper storeys at Canhasan I.

Building	maximum height of walls	floor reached
2B.1	1.75 m	No
2B.2	2.19 m	No
2B.3	3.00 m	Yes
2B.4	1.69 m	Yes
2B.5	2.93 m	Yes
2B.6	2.20 m	Yes
2B.7	1.63 m	Yes
2B.10	2.75 m	Yes

Table 8.3: Preserved wall heights of excavated layer 2B buildings at Canhasan I.

In particular, buildings 2B.3, 2B.5 and 2B.10 were preserved to a height where one would expect to find remnants of the upper storey. In buildings 3 and 5 such remnants were not preserved, but in building 10 clear features connected to the upper storey could be discerned (French 1998, 40, fig. 21, pl. 7-1). The evidence consisted of the lower plastered wall reaching up to 2.70 metres above the floor in the western part of structure 10 and 2.00 metres in the east. On top of that lower wall, the wall curved inwards and formed a ledge that was without plaster. In this ledge the impressions of beams and twigs were found. About 20 centimetres above the ledge a distinct white plaster was present, which probably belongs to the upper storey. The walls of that upper storey could be traced over some distance (French 1998, fig. 21), and were about half the width of those of the ground floor (40 rather than 80 centimetres). Finally, building 2B.10 contained some fragments of painted wall plaster that probably derived from the upper storey.

The third argument for interpreting the layer 2 spaces at Canhasan as basements is that they have an extremely unfavourable relation between exterior and interior size (see fig. 8.3). This means that the walls take up a large proportion of the built space. To put this into the perspective of other settlements of the Central Anatolian Neolithic, on average the walls take up 41 % of the space occupied by a building at Aşıklı Höyük, 30 % at Canhasan III, 38 % at Çatalhöyük, 63.5 % at Erbaba, and 53.7 % at Canhasan I. From these figures it appears that normally the walls would have taken up between 30 and 40 % of the total area of a building, but this figure is markedly higher at Erbaba and Canhasan I, which suggests that at these sites walls were more substantial and rooms were smaller than at the other sites. A similar conclusion can be drawn on the basis of figure 8.3, which plots the exterior and interior dimensions of rooms in the clustered neighbourhood settlements. Note that the Erbaba and Canhasan I spaces occur most frequently at the right hand side of this scatter diagram.

Considering that: first, the massive walls and buttresses at Canhasan I were not a structural necessity for buildings containing a single storey; second, the amount of effort required to construct these walls was quite substantial; and third, the relatively small and fragmented interior spaces obtained by this manner of building, it seems plausible to suggest that we are looking at the ground floor plans of buildings with two storeys, rather than at structures without an upper storey.

The issue can also be addressed on the basis of circumstantial evidence relating to the nature of the rooms excavated at Canhasan I. This concerns the paucity of features within these buildings and the treatment of the walls. In chapter 3 it has been shown that both the care and frequency of plaster practices is related to the function of a room (§3.4.4; §6.2.5). At both Aşıklı Höyük and at Çatalhöyük living rooms were plastered with great care and frequency. By contrast, storage rooms were often plastered less often and with coarser plaster. In the Early Chalcolithic layers at Canhasan many buildings seem to have floors of stamped loam rather than plastered floors,²⁵⁴ and

²⁵⁴ Such floors were reported for 2B.3, 2B.4, 2B.6, 2B.7 and 2B.10.

wall plaster also seems to have been of a simple kind. In layer 2B two buildings out of the eight excavated did not have any form of wall plaster. In addition, living rooms at sites such as Aşıklı Höyük and Çatalhöyük could be recognised by features such as ovens, hearths and platforms. At Canhasan I all of these features are absent in the majority of the spaces of the layers 3-2A.²⁵⁵ The only features that seem to be common in the layer 2B structures seem to be bins²⁵⁶ and ‘benches’: raised areas that are found adjacent to the outer walls.²⁵⁷

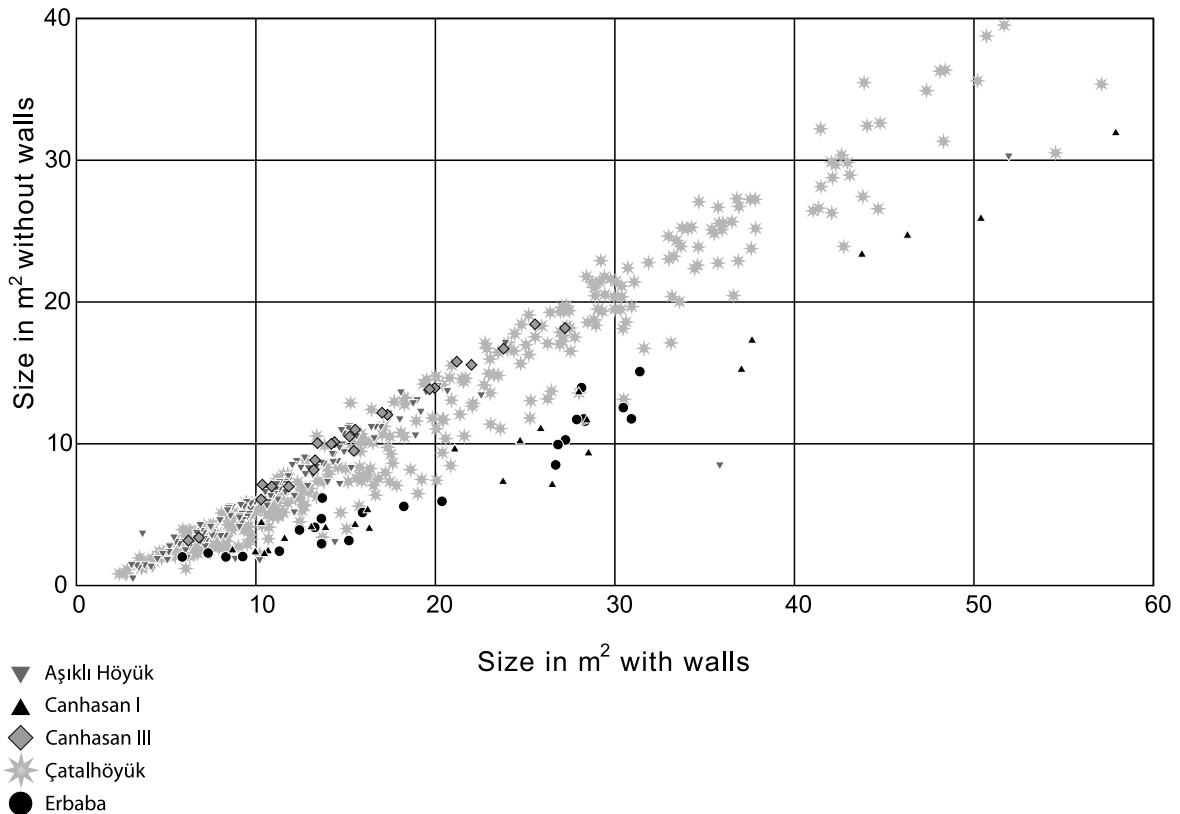


Figure 8.3: The exterior and interior sizes in m² of the rooms of Aşıklı Höyük, Canhasan III, Çatalhöyük, Erbaba, and Canhasan I.

In contrast to these Early Chalcolithic buildings at Canhasan I, in the Late Neolithic layers 5 and 4 at Canhasan I plastered floors seem to have been the norm, and floor compartments have been documented. Moreover, in these layers, hearths, platforms, and *in situ* objects were found in association with these floors (see French 1998, 23, fig. 9). Such internal features and embedded objects seem to disappear entirely in layers 3 and 2B. However, in building 2B.3 painted plaster fragments were found that had probably fallen down from the collapsed upper storey, and in building 2B.10, where the upper storey was partially preserved, French (1998, 40) mentions that the upper storey was plastered with at least five fine white plaster layers, but that this plaster was not applied to the walls of the ground floor storey.

²⁵⁵ A hearth was reported in the southeast corner of 2A.2, another was found in 2A.3, and a series of hearths were found in 2A.5. The hearths in buildings 2A.3 and 2A.5 seem to relate to later occupation levels, rather than to the building floors, however.

²⁵⁶ Bins were found in 2B.1, 2B.6, 2B.7, and 2A.2.

²⁵⁷ ‘Benches’ were found in the layer 3 building, and in buildings 2B.1; 2B.2; 2B.3 and 2A.3.

The combination of the arguments presented above, that is: first, the enhancement of load bearing capacities in the construction of buildings through the use of true loam bricks, buttresses, and posts; second, the assemblages from collapsed upper stories deposited on collapsed floors, including fragments of painted plaster, and the actual recognition of the lower courses of the upper storey of 2B.10; third, the large proportion of building space taken by walls at Canhasan I; and fourth, the absence of good wall plaster, floors, and interior features that were indicative of domestic activities in other settlements, strongly indicates that most, if not all, of the buildings in layers 3-2A at Canhasan I functioned as a basement for an upper storey that was used as living space.

French has proposed a reconstruction of the upper storey of layer 2B at Canhasan I (1998, 31, 68, figs. 12, 59 and 60). Although the hypothetical nature of this reconstruction is stressed, we are not informed of the basis on which it was drawn up. On analogy with some of the loam brick houses of the adjacent modern village, French posited that the buildings of Canhasan I had an upper storey about half the size of the ground floor spaces. This argument is unconvincing for two reasons. First, it is not clear in what manner French determined what parts of the buildings had a second storey. Second, no arguments have been put forward as to why the Canhasan I buildings were similar in this respect to local vernacular traditions. At least in the published data no elements are provided that could clarify this issue. In my view, it seems more plausible on the basis of the evidence that the upper storey was of the same size as the ground floor. The evidence from building 10, which is the only building with preserved remains of the second storey, seems to indicate that it covered the entire structure. Furthermore, there are no structural reasons to assume why these buildings would have had only a partial upper storey. In short, it is likely that the 2B structures were completely covered by an upper storey, rather than only in part.

8.3.1 THE LOAM BUILDINGS OF CANHASAN I

Three periods can be distinguished on the basis of building practices at Canhasan I: the Late Neolithic layers 7 to 4, the Early Chalcolithic layers 3, 2B and 2A, and finally the Middle or Late Chalcolithic layer 1. Many of the characteristics of the buildings of these periods have already been discussed in the previous section.

In the Late Ceramic Neolithic, period walls were constructed with loam bricks that measured approximately 0.50 by 0.30 by 0.08 metres, but it is noted that there is no standardisation of brick size (French 1998, 21). The bricks were tempered with vegetal elements consisting of chaff and chopped straw. The mortar used was a thick matrix of clay without vegetal temper. The walls were generally founded on remnants of earlier walls, creating a certain structural continuity of buildings in terms of location, orientation and size. Stone foundations were not in use. Walls were plastered in all cases with a loam plaster. In addition, a fine white plaster was applied on some walls. Floors had similar forms of plaster.

The exposures of the earliest layers at Canhasan I are of a relatively limited size. Layers 7 and 6 have been investigated in an area of 2 by 3 metres only. By consequence, little of interest is known concerning this part of the Canhasan I sequence. In the subsequent layer 5, which was exposed in an area of 4 by 4 metres, a confusing array of walls and internal division walls was found. The structures assigned to this layer are seemingly constantly redeveloped and modified (French 1998, 23-4). To name three instances of these dynamic developments: a door is opened and subsequently blocked (in wall 7); a wall is constructed on top of an earlier bench (wall 8); and hearths are wandering around the room in the south-western area (French 1998, 22-3).

The spaces of layer 5 have some interesting characteristics. Some of the walls and floors were found to bear a large number of high-quality plaster layers (*ibid.*, 23-4). Furthermore, on the layer 5 floor a number of features related to domestic activities were found, such as two hearths, a series of six bins, and two querns embedded in the floor. All these elements suggest that the spaces of layer 5 were not so much used for storage purposes, but rather for domestic purposes (§3.4.4; §4.5.1; §6.2.5).

The remnants of the layer 4 buildings show similar characteristics to those of layer 5. To a large extent the walls of layer 4 follow those of the preceding layer. Walls and floors often had multiple fine white plaster layers. The care with which these floors were constructed is demonstrated by the fact that two of them, floors 16 and 20, rested on wooden beams that lay at right angles to the western and eastern walls (French 1998, 25).²⁵⁸ No ovens or bins were found, but in the room in the north-west of the exposure, four compartments were encountered that are constructed of fine yellow plaster, with shallow ledges no more than 10 cm wide as dividers. At present, it is not clear what the purposes of these compartments were, but they are similar in many ways to the platforms at Çatalhöyük, and might have served similar purposes related to domestic life (§6.4.5).

Another element of interest in layer 4 was found below the raised threshold in the door between walls 5 and 6. Beneath this threshold a double burial of two dogs was found (French 1998, 25, pls. 4-2 and 5-1). The idea behind the practice that led to this burial can no longer be reconstructed, but it seems plausible that some kind of qualitative difference between the two spaces separated by the threshold was thus emphasised. This interpretation is reinforced to some degree by the distinct functions of both rooms, as indicated by the presence of compartments to the west and their absence to the east.

The subsequent layer 3 was excavated over an area of 10 by 10 metres. Despite the fact that the exposure is larger than that of the previous layers, only one badly preserved structure was found (French 1998, fig. 10). However, from the scant remains preserved it is clear that layer 3 occupies an intermediate position between the Neolithic and Chalcolithic building practices documented at Canhasan I. In the layer 3 building we find the first adoption of mould-made loam bricks at Canhasan I. These bricks have a greater width than those that were previously in use, and by consequence, walls became more massive from layer 3 onwards. A second innovation, found from layer 3 onwards, is the use of internal buttresses. Due to the use of these buttresses and true loam bricks, the walls probably became much more stable. The walls of the layer 3 structures were plastered with both red clay and white clay, but no features other than a possible bench were found, nor could a floor be distinguished in the excavations.

The largest exposure at Canhasan I with the best-preserved remains is assigned to layer 2B. The excavated area measures ca. 748 m² and will be the main focus of this chapter. In the exposed area 11 buildings were uncovered, and of these 9 were excavated to some degree (see fig. 8.2).²⁵⁹ Many of these buildings were preserved up to a considerable height (see table 8.3), which facilitates a detailed understanding both of the individual structures, and of the settlement as a whole.

A number of innovations in building practices characterise the layer 2B buildings. First, standardised mould-made loam bricks of ca. 80 by 40 by 10 centimetres were introduced. Second, the use of buttresses, that were first evidenced in layer 3, was continued in layer 2B. Third, in addition, bricks are incorporated into the walls using the header-and-stretcher technique, in order to further enhance the load bearing capacities of the walls.²⁶⁰ Fourth, in some buildings evidence for

²⁵⁸ A similar arrangement in which floors were constructed on top of beams is reported at the Late Neolithic site of Ilıpınar (Roodenberg and Gérard 1996, 36), but the practice this practice has not, to my knowledge, been documented in any of the other Neolithic sites of Central Anatolia.

²⁵⁹ The easternmost part of the building labelled structure 10 by French (1998, fig. 11), which was reassigned from layer 3 to 2B (French 1968, fig. 1), has been relabelled building 11 in this study, because there is no published evidence to show it is part of the same structure as (the western part of) 2B.10.

²⁶⁰ French is inconsistent in his final report (1998) with regard to the issue of the timing of the introduction of this header-and-stretcher technique. On page 20 he notes: "The method of headers-and stretchers (for the purpose of thickening, while at the same time strengthening, walls) has not been noted at Canhasan before Layer 2B, although double lines of bricks, i.e. laid in parallel, have been recorded in Layer 3", but in the discussion of the layer 3 structure he writes on page 26: "the mud brick was arranged in header-and-stretcher technique".

the use of posts is found. These posts are placed in the axis between two buttresses generally in the transverse direction of the rectangular buildings. This positioning of the posts strongly suggests that these posts were supports for beams that lay in a transverse direction over the structures and the buttresses.

The surface treatment of the walls of layer 2B varies considerably from one building to the next. For instance, the walls of buildings 2B.2 and 2B.6 do not seem to have been plastered at all.²⁶¹ In other buildings, such as 2B.3, 2B.5, 2B.7 and 2B.10, the walls had a white loam plaster on their surfaces. It is not clear whether such differences are related to possible functional differentiation amongst the 2B structures. What is apparent is that there is a notable lack of good floors, in contrast to the situation in the earlier layers 7-4. The only well-executed floor seems to be that of 2B.3, which is described as: "a simple layer of hard earth over small pebbles" (French 1998, 32).

A related issue is the qualitative difference of the plaster found on the walls of the 2B buildings from that deriving from the collapsed upper storeys. In buildings 2B.3 and 2B.10 fragments of wall plaster painted with polychrome geometric motifs were found. The fact that such painted plaster from the upper storey was found in two out of the nine excavated structures seems to indicate that the practice of painting the plaster of the upper storey was fairly common in the settlement. The qualitative difference between the plaster from the upper storey and that of the ground floor is a good argument for reconstructing the living quarters on the second storey.

Relatively few features were found in the structures of layer 2B, most of which can be placed into two general categories: benches and bins. Benches were found in buildings 2B.1, 2B.2 and 2B.3. These benches are often of an irregular shape or are placed in between buttresses. They do not seem to have served as seats, for which they are either too shallow (25 centimetres) or too deep (146 centimetres). It seems more likely that were used as 'shelves' for the storage of goods. One context that could be used to support this idea is a deposit of charred grain that was found on the bench of the western room of 2B.3 (French 1962, 31). The bins too, were in all probability used for storage. Bins were found in buildings 2B.1, 2B.3, 2B.6 and 2B.7. They were constructed by placing bricks on their sides in between protruding buttresses.

Another issue that is of interest with regard to the layer 2B buildings is the manner in which some structures were abandoned, and related to that the considerable heights to which many buildings were preserved. Many of the layer 2B buildings show traces of fire.²⁶² The most extreme burning seems to have taken place in buildings 2B.3, 2B.2 and 2B.10. French hypothesises that the fire started in building 3, and was carried southwards by the wind (1966, 117).

Structure 2B.3 was burned throughout, with the loam bricks baked red and black by the fire, and the same is true for building 2B.10. In the case of building 2B.2, that was located in an intermediate position between 2B.3 and 2B.10, only the upper part of the walls was affected by fire, and the same was true for building 2B.6. Further, in building 2B.1 only the lower half of the building showed traces of burning. The circumstance that these buildings were differentially affected by fire is difficult to reconcile with French's reconstruction of a single fire episode spread by the wind. For instance, in building 2B.1 the fire seems to have originated in the bins in the eastern part of the building, but the fire did not devour the entire structure (French 1998, 31).

Another fact that is of note is that in many buildings only the upper part of the walls was affected by fire. A case of special interest in relation to this point is the abandonment procedure of building 2B.2 (French 1963, 35; 1998, 31-2). Up to the point where it was excavated, 2.20 m below the top of the walls, this building was deliberately filled with stacked loam bricks. At 2.00 m below the top surface of the walls the process of filling in was apparently halted, and it is from this level

²⁶¹ Given the excellent state of preservation of these buildings, both of which were preserved up to 2.20 metres, it seems likely that this absence is not due to post-depositional processes.

²⁶² Five of the excavated 2B buildings were affected by fire (2B.1, 2B.2, 2B.3, 2B.6, and 2B.10), and 3 were not (2B.4, 2B.5, and 2B.7).

that the walls were affected by fire. Interestingly, the stacked loam brick fill shows scorched circles indicating where the posts were located. Thus it seems that the building had not been dismantled at the moment when the fire occurred.²⁶³

The circumstances surrounding the occurrence of the fire in building 2B.2, and the fact that fires occur in many of the layer 2B buildings independently, could indicate that these fires were intentional rather than accidental, a practice that has been argued for a variety of other Neolithic sites (Stevanovic 1997; Verhoeven 2000b; Cessford and Near in prep), but which can only be solved through the application of forensic fire investigations (Stevanovic 1997; Harrison 2004).

By contrast to the building remains from layer 2B, the layer 2A evidence at Canhasan I is difficult to work with. The layer 2A remains at Canhasan I have been exposed over a much smaller area than layer 2B. Moreover, the buildings are less well preserved than in layer 2B (see fig. 8.2). In many cases the walls of the buildings were no more than a few courses high. In addition, none of the 2A buildings has been completely excavated. Finally, the layer 2A plan represents a palimpsest situation, combining mutually exclusive building phases on a single plan. For instance, building 2A.6 probably postdates buildings 2A.2 and 2A.3 (French 1998, 50), and should be considered separately.

Due to all these problems, it is difficult to compare the 2A buildings with those of layer 2B. However, some features can be noted that were not found in the layer 2B structures, including a hearth located on the floor of 2A.2, and the use of bricks of irregular size in 2A.4. Nonetheless it is clear that in general the layer 2A buildings possess characteristics similar to those of layer 2B. This seems consistent with the view that what has been labelled layer 2A is really a horizon of renovations of layer 2B structures.

The architecture belonging to layer 1 is of a Middle or Late Chalcolithic date and differs entirely from the earlier architectural traditions at the site. The settlement became much more open and changed dynamically. Whereas in layers 7-2A the buildings were constructed directly adjacent to one another, in layer 1 there are large open spaces between the buildings. Furthermore, it seems that walls were no longer founded on earlier walls, and the locations and orientations of the buildings change dramatically with each building phase. The individual buildings were less well built, with insubstantial bricks measuring approximately 0.3 by 0.18 by 0.12 metres, and buttresses were not employed.

Given these characteristics, it seems unlikely that the layer 1 buildings had a second storey. Rather, the insubstantial nature of the layer 1 walls is probably related to a process of constant modification and abandonment taking place during this period (see figs. 26-31 in French 1998). It is clear both from the building practices, and from other evidence such as the ceramic assemblage (French 1998, 69), that the layer 1 traditions are unrelated to those of the Early Chalcolithic layers at Canhasan I, and as such they fall outside the scope of this study that focuses on the clustered neighbourhood settlements of the Neolithic and Early Chalcolithic of Central Anatolia.

8.3.2 ROOMS OF LOAM BUILDINGS IN LAYERS 2B AND 2A

The ground floor rooms of layers 2B and 2A at Canhasan I include rooms of a variety of sizes (see fig. 8.4). At the one extreme there are small rooms, such as the three northern rooms of building 2B.1, which are less than 2 metres in width, and such small rooms dominate figure 8.4. At the other extreme is the large room 2B.2, which measures approximately 60 m² in size.

Potentially, the larger ground floor spaces of layers 2B and 2A could have served a variety of purposes, whereas the smaller rooms below 5 m² in size most likely were used primarily for storage on account of their limited dimensions. However, it has already been pointed out in the previous section that the contextual evidence in these buildings primarily points to storage

²⁶³ French suggest that the building was filled in order to prevent the walls from collapsing to the south on top of adjacent building 10 (1998, 32).

functions for all these spaces. In this light, nothing much can be based on the room sizes of layers 2B and 2A at Canhasan I.

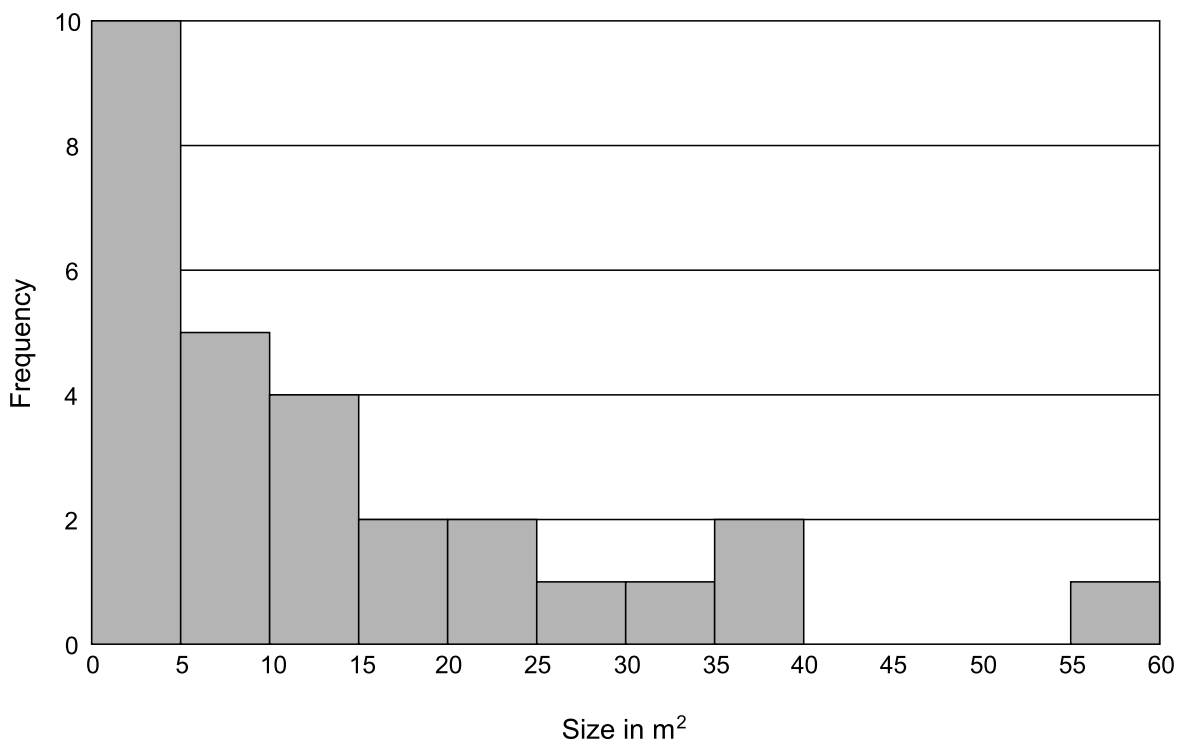


Figure 8.4: Interior room sizes in m² of the ground floor layer 2B and 2A spaces at Canhasan I, (n=28, mean 13.9 m²).

Comparing the interior room sizes with those of Erbaba (§7.3.1) it can be noted that the rooms at Canhasan I are much larger (none of the rooms at Erbaba are larger than 16 m²). While these differences may relate in part to the restricted exposures that were dug at Erbaba, it also seems that the superior building technologies employed at Canhasan I allowed for much larger two storey structures with greater spans possible for the ground floor storey.

8.3.3 BUILDING UNITS AT CANHASAN I IN LAYER 2B

Due to the circumstance that party walls were not in use in layer 2B and 2A at Canhasan I, in other words that each building was surrounded by its own set of walls, it is relatively easy to distinguish the building units at Canhasan I. Analysis of the layer 2B buildings (no complete layer 2A buildings have been exposed) demonstrates that there is a considerable amount of variability both in the size and spatial organisation of these building units. The interpretation of such differences is hampered by the fact that, unlike at sites such as Canhasan III, Aşıklı Höyük and Çatalhöyük, much of the essential information is missing because we cannot study the upper storeys. However, I believe an analysis of the ground floor can enhance our understanding of the Canhasan 2B settlement nonetheless.

The interior sizes of the buildings at Canhasan I layer 2B range from small units below 10 m² (building 2B.5) on the one hand, to large buildings over 60 m² in size (buildings 2B.3, 2B.2 and 2B.10) on the other (see fig. 8.5). On the basis of the interior dimensions two groups of buildings can be distinguished. First, there are three relatively small and more or less rectangular buildings, 2B.5, 2B.6 and 2B.7. In buildings 2B.5 and 2B.6 buttresses take up much of the internal spaces, and their upper storeys would have been much larger than their ground floor storeys.

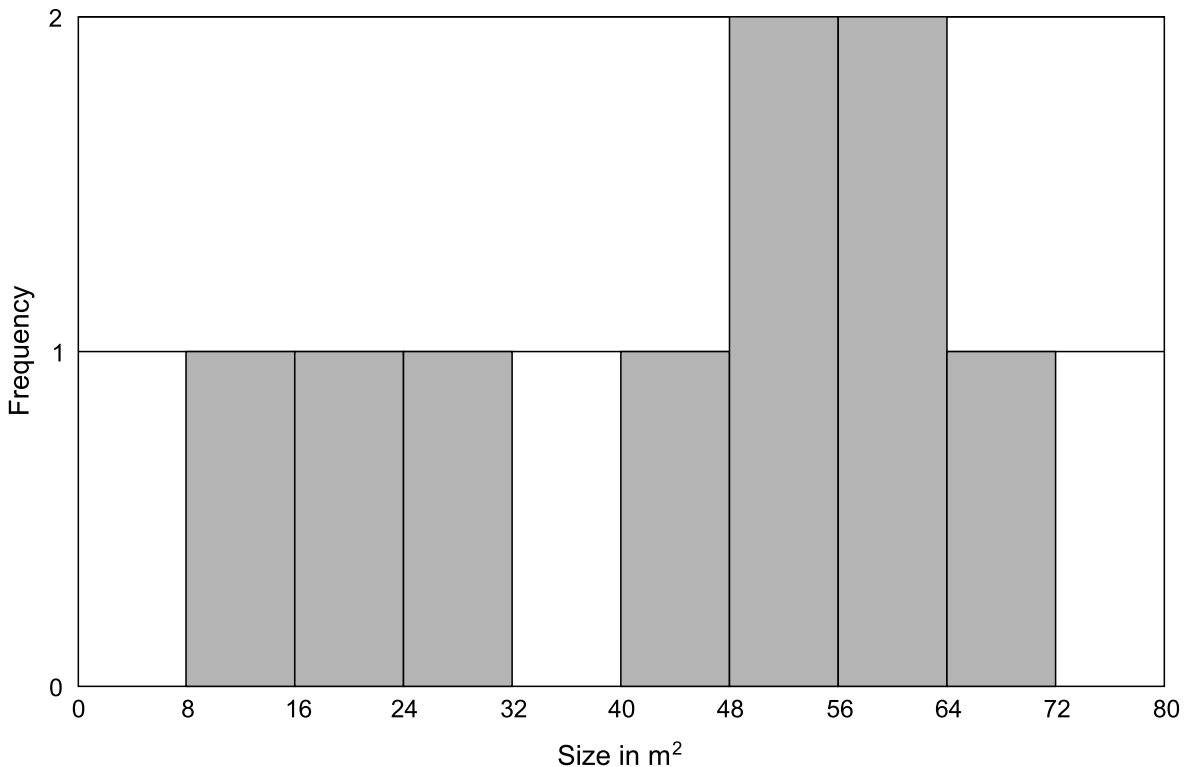


Figure 8.5: Interior sizes in m² of the ground floor spaces of the layer 2B building units at Canhasan I (n=9, mean 43.8 m²).

The second group of distinctive buildings consists of 2B.1, 2B.2, 2B.3, 2B.4 and 2B.10. These buildings range in interior size between 43 and 71 m². Buildings 2B.2, 2B.3 and 2B.4 are similar in size and have one or two rooms at ground floor level. Buildings 2B.1 and 2B.10 are somewhat larger and have a more complex configuration of space at ground floor level (see fig. 8.2). Both of these buildings are about 132 m² in ground plan, but their interior sizes are only 50.5 m² (2B.1) and 71 m² (2B.10). This reflects a different organisation of space in these buildings. Building 2B.1 had at least six different rooms (depending on how a room is defined this number could be increased to 9), four of which could not be accessed from the other rooms. Building 2B.10 was equally fragmented over about 8 rooms, but these could all be accessed from each other.

The second storeys of these buildings potentially could have been very large. Both buildings 2B.2 and 2B.3 have evidence for posts aligned in between the buttresses, which make the existence of a substantial second storey on top of these buildings very plausible. Building 2B.10 also seems to have been covered by an upper storey in its entirety (French 1998, 38-42).

8.4.1 SPATIAL DISTRIBUTIONS IN LAYER 2B AT CANHASAN I

In this section, the distribution of features and *in situ* objects and ecofacts will be discussed. Information on all these categories is scarce at Canhasan I. One reason for this situation seems to be that floor levels, upon which we could potentially expect to find *in situ* objects and ecofacts, were not reached in all of the buildings. In particular, in buildings 2B.1, 2B.2 and in the western room of 2B.4, the floors were not uncovered. However, even in those spaces where the floors were found, very few features and objects were found. This scarcity of finds has already been related to the poor quality of wall plaster and the floors that were encountered in the layer 2B structures

(§8.3.1). This situation can be contrasted to that prevailing in the earlier layers 7-4, in which wall plaster and floors were produced according to a higher standard, and in which features related to domestic activities and objects on the floor were more common. The development from the Late Neolithic building traditions to those of the Chalcolithic has been interpreted as entailing the construction of upper storeys in layers 3-2A, and the probable transfer of domestic and craft activities to the second storey.

A third element that complicates the discussion of the distribution of features and artefacts over buildings concerns the lack of detailed data in the publications. In the preliminary reports some very interesting contexts are mentioned, but so far they have not been treated in detail. To mention an example, a short reference is made to 12 secondary burials consisting of infants and juveniles which were found in structure 2B.11. One of these burials had traces of ochre on the skull. Further, it is stated that these burials were accompanied by both pottery and animal bones (French 1968, 50). Unfortunately no details beyond that are provided, and thus we lack crucial evidence. For instance, we do not know whether these burials were located in the burial fill, or beneath the floor, and how they were related to one another.

Notwithstanding all these problems I will proceed to discuss the evidence that is available, in order to learn what we can about the use of space at Canhasan I during layer 2B. In terms of objects and ecofacts buildings 2B.7 and 2B.3 seem to have been the most interesting. The eastern room of 2B.3 contained charred grain, which was found on the bench (French 1962, 31). Possibly also on the bench was a mace-head, and on the floor a necklace of bone beads and some bone points were found (French 1962, 33).

Building 2B.7 contained what seems to have been a cache of obsidian blades below the floor (French 1965, 90), and below the same floor a number of animal bones were found (*ibid.*). On top of this floor some pottery was found, and possibly some obsidian blades (French 1966, 118). The most interesting find related to house 2B.7, however, was found behind the north-western wall of the building. That wall was constructed at some point during the occupation of building 7, which originally extended further to the north. At the time that this north-western wall (*Feature F.7.6*) was built, a deposit was placed behind it that included 120 mandibles of sheep, most of them left mandibles, and 30 skeletons of small amphibians, probably toads (*ibid.*). This strange deposit can be linked to similar deposits of unusual collections of bones found at Çatalhöyük (Russell *et al.* 2003; Russell and Martin 2005, 54-5), and like those it probably had some kind of meaning connected to the life cycle of the building in question.

It has already been pointed out that most of the features found in layer 2B at Canhasan I are either benches or bins. Nothing much can be said about what was stored on and in them respectively. In the eastern bins of the main rooms of 2B.1 traces of fire were found, indicating that a combustible matter was stored within them.

Layer 2B contained no hearths, but one was found on the floor of building 2A.2. This may suggest a domestic use of the lower storeys at that time, but it seems hazardous to base such conclusions on a single example. Moreover, it is not clear whether this particular hearth was related to the primary use of this buildings, or can be assigned to later activities that were performed when the structure in which it was located had already fallen into decay (see French 1998, 47, 49).

Summarising the contextual evidence for the use of the Canhasan I layer 2B buildings, a number of issues are clear. First, *in situ* features and objects are relatively scarce at the site. This absence of evidence can be correlated with the poor quality and of wall plaster and floors in these spaces. Taking all the data together a strong case can be made for the transfer of domestic activities to the upper floor of the Chalcolithic buildings, whereas the ground floor seems to have functioned as a space for storage, rather than living. The few *in situ* features present in the Chalcolithic buildings of Canhasan I are in accord with this model. They consist primarily of bins and benches that served to contain and carry goods, such as the charred grain found in building 3.

8.5.1 DEFINING DOMESTIC UNITS

On the basis of the discussion in the previous sections it is clear that the only basis for the reconstruction of the social uses of buildings available at layer 2B at Canhasan I consists of the dimensions of the ground floor spaces, which seem to have been used primarily for storage purposes. Given that we do not have any information on production and consumption of subsistence goods, and only limited evidence for storage, issues concerning economic pooling cannot be considered here.

Can we reconstruct the size of the upper storeys at layer 2B in Canhasan I? It has already been demonstrated (§8.2.2) that all layer 2B buildings could have supported complete upper storeys. For some of the smaller spaces, such as 2B.5 and 2B.6 the amount of space taken up by the walls at ground level strongly suggests that they had complete upper storeys. For the larger buildings it could be argued, as French (1998, fig. 12) has done, that upper storeys may have been partial rather than complete ones.

The only good evidence that we can go by is that of building 2B.10. As far as can be reconstructed, the upper storey of this building seems to have had the following characteristics: first, it completely covered the ground floor; second, it seems to have lacked most of the internal buttresses of the ground floor, with walls that were somewhat less substantial; and third, the major division walls on the ground level were also present in the upper storeys (French 1998, 38-42). If we assume that the upper storeys of other layer 2B buildings would have been similar to those of 2B.10, we can use these three principles to make an estimate of what the rooms sizes at Canhasan I could have maximally been in other structures (see table 8.4).

Building	Size in m ² (estimate)	Naroll 1962	Cook and Heizer 1968	Casselberry 1974
2B.5	22.6	2.3	6.9	3.8
2B.6	38.8	3.9	8.5	6.5
2B.7	67.8	6.8	10.4	11.3
2B.4	110.1	11.1	15.6	18.4
2B.3	126.4	12.6	17.3	21.0
2B.2	130.1	13.0	17.6	21.7
2B.1	133.5	13.3	18.0	22.3
2B.10	154.9	15.5	20.1	25.8

Table 8.4: Population estimates for Layer 2B Canhasan I rooms including estimated upper storeys, using three formulae that relate roofed floor area to the number of inhabitants.

If we apply the cross-cultural estimates that relate roofed floor areas to the number of residents to these estimates, it is clear that the layer 2B buildings at Canhasan I are potentially large enough to have functioned as household residences (see table 8.4). On the basis of these estimates these buildings could in theory have housed extended rather than nuclear families. Given the absence of good floors and wall plaster and the absence of domestic features at the ground floor storeys at Canhasan I, however, I would argue that these spaces were not used for residence, and that they cannot be used for estimating the number of residents that could have been associated with buildings. Accordingly the figures in table 8.4 should probably be halved in order to arrive at reliable estimates of the number of residents. On that basis it would appear on the basis of the cross-cultural formulae that most buildings at Canhasan I would probably have been used by about five people. In the absence of contextual evidence such an interpretation can only be tentative, however.

Perhaps the only thing that we can be certain of in relation to the social uses of buildings in layer 2B at Canhasan I is that building sizes varied considerably, and this probably relates to some form of differentiation amongst the small buildings, such as 2B.5 and 2B.6, and the larger buildings. These differences could relate to a different function of the smaller buildings, for

example, they may not have been houses, or, alternatively, the households associated with these structures might have been smaller in size or of lower status. Which of these alternatives applies cannot be determined at present.

8.6.1 ESTIMATING THE CANHASAN I POPULATION

The size of Canhasan is approximately 90,000 m². The eight layer 2B buildings that have been excavated completely occupy about 700 m². If these buildings were inhabited by core families of about five people the number of residents in this area would have been about 40 people. Extended to the site as a whole this would result in a population of approximately 5128,²⁶⁴ and assuming that between 25 % and 50 % of the site would not have been built up even during its peak occupation, this could be reduced to between 2564 and 3846 people.²⁶⁵ Postulating that at Canhasan I too, clustered neighbourhoods would normally have been inhabited by 150-200 people (§4.7.1; §6.7.1), the number of neighbourhoods could potentially have ranged between 13 and 26.²⁶⁶ The idea that Canhasan I might have been a central site in a wider network of smaller settlements (§8.1.1) would agree with such a substantial local community.

8.7.1 THE SPATIAL CONFIGURATION OF THE CANHASAN I SETTLEMENT

The settlement of layer 2B at Canhasan I is characterised by the practice of constructing buildings directly adjacent to one another. From the rather limited part of the settlement that has been excavated we know that at least some of the buildings could not be accessed from open spaces. In layer 2B structures 2B.5 and 2B.6 could only be reached from a neighbouring building. If we include layer 2A, a whole range of buildings, including 2B.2, 2B.3, 2B.4, 2B.5 and 2B.6, could only be accessed indirectly.

The extent of the neighbourhood that was excavated at Canhasan I cannot be determined in any direction. The hypothesis that building 2B.4 stood at the western edge of the neighbourhood, and that building 2B.10 stood at its southern edge, as originally argued by French (1967, 172), is no longer tenable. In the more recent report on the layer 2B structures French argues that in these areas buildings were in all probability removed by deep terracing (French 1998, 43).

Concerning the appearance of the roofscape at Canhasan I during layer 2B, little can be reconstructed with certainty. The floor levels of the layer 2B buildings vary up to 80 centimetres for adjacent buildings, and the floor of building 2B.10 is 2.1 metres lower than that of building 2B.3. Given these circumstances, it seems likely that the settlement at Canhasan I was terraced during layer 2B, and that ladders would have been present on the roofscape to bridge differences in elevations.

Most buildings at Canhasan I would have had upper storeys which probably covered the ground storeys completely. It is likely that the roofs of the second storeys would have functioned in a manner similar to that of the roofscape at Çatalhöyük (§6.9.3-4): as activity areas and for storage and relaxation in the hot part of the year, and as a transport venue in the wet part of the year. In all probability the use of this roofscape was limited to residents and invitees, and the roof acted as a prime arena for socialising amongst people living in the neighbourhood. In the absence of data from these roofs, nothing can be added to our understanding of the Canhasan I roofscape in layer 2B, however.

Likewise, it is impossible to perform the kind of access analysis performed for Aşıklı Höyük, Canhasan III and Çatalhöyük for the simple reason that we have no information about one of the major components of the settlement, namely of the upper storeys. It is impossible to estimate what

²⁶⁴ 700 m² constitutes 0.78 % of the total site surface, and if 40 people would have lived there 5128 people could have occupied 100 % of the site.

²⁶⁵ 2564 = 50 % of 5128; 3846 = 75 % of 5128.

²⁶⁶ 13 = 2564 divided by 200; 26 = 3846 divided by 150.

these upper storeys looked like, and how buildings were accessed. The only level that we can look at is that of the ground storey (see fig. 8.6).

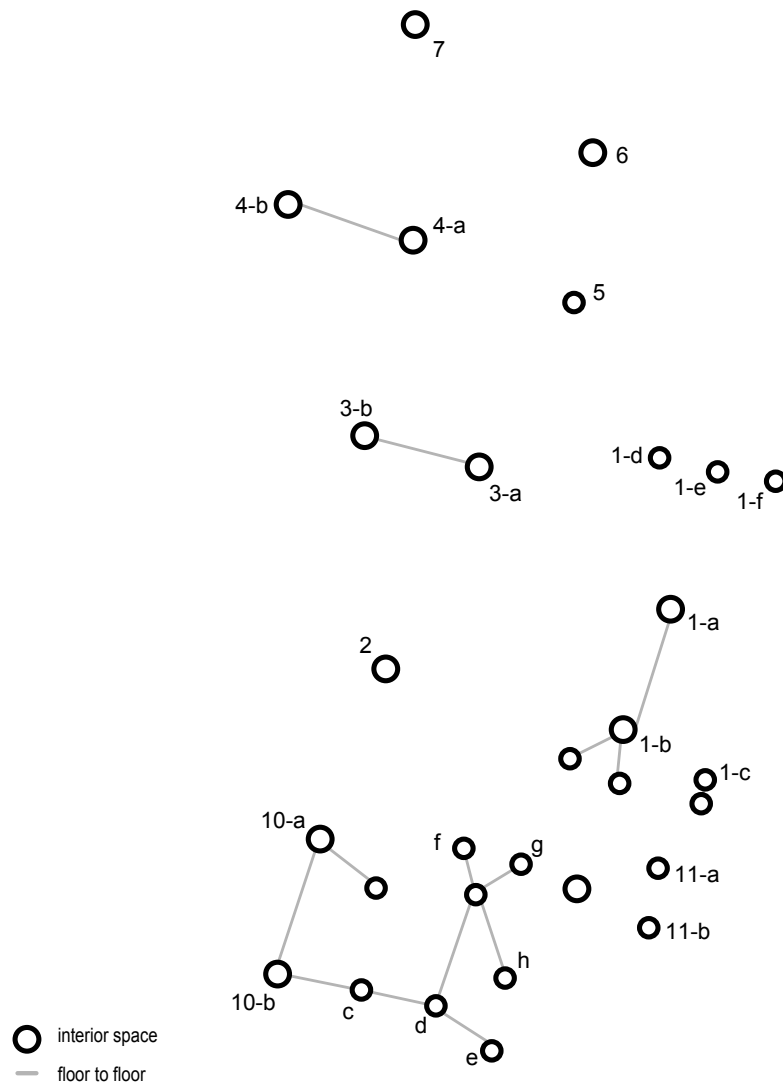


Figure 8.6: Access plan of the ground floor spaces of layer 2B at Canhasan I.

Most buildings of layer 2B consisted of a single space, or two spaces linked through an internal door (buildings 2B.2, 2B.3, 2B.4, 2B.5, 2B.6 and 2B.7). These spaces could have been accessed by a single ladder from the second storey. Two buildings, 2B.1 and 2B.10 diverge from this model. Building 2B.10 has a long beady access pattern, in which every space could be reached, although in some cases quite a large number of spaces had to be crossed in order to get from A to B. The organisation of space in 2B.10 allows for a hierarchical use of space, in which certain rooms would have been more difficult to reach, and for a functional differentiation of space. Unfortunately, it is not possible to investigate such possible uses of space in the absence of contextual data from the individual spaces.

In building 2B.1 the fragmentation of space is even more pronounced than in the case of 2B.10. Some of the rooms of 2B.1 could only be accessed from above. It could thus be posited that building 2B.1 probably had more entrances to the ground floor than any of the other buildings. Furthermore the spatial segregation in 2B.1 could suggest that there was also a defined functional

separation of these spaces; in other words, that they were used for specific purposes. The small rooms in the north of 2B.1 (measuring 1.76 by 2.46, 1.13 by 2.46, and 1.74 by 2.62 respectively from west to east), might have been opened only occasionally, since a permanent ladder would have hindered locomotion considerably, taking up most of the spaces.

8.8.1 SOCIAL DIMENSIONS IN THE CANHASAN I SETTLEMENT

In this chapter the focus has mainly been on building technologies and the appearance of two storey buildings in the Early Chalcolithic period at Canhasan I that developed out of a Late Ceramic Neolithic building tradition, that appears similar to that documented at Çatalhöyük. Much less has been written about the nature of the spaces that we are dealing with at Canhasan I. The content of this chapter has been guided to a large degree by what the data allow us to study. The Canhasan I excavations have been of a restricted nature both horizontally and vertically. The one thing that is clearly documented are the changes in building technologies that occur from layer 3 onwards. It has been argued that the paucity of *in situ* finds and features at layers 3-2A at Canhasan I is determined by a shift upstairs of the living quarters that has major implications for the archaeological visibility of human behaviour in this settlement. In archaeology a major challenge is to try to accommodate such shifts in visibility in our models.

To mention an example, both Hodder (1990, 21) and Last (1998a, 375) have argued that motifs occurring in wall paintings in the Ceramic Neolithic were transposed in the Early Chalcolithic to portable pottery. However, from the evidence at Canhasan I in layer 2B it is clear that wall plaster continued to be painted in the Early Chalcolithic, as is clear from the tumbled down painted wall plaster from the upper storey found in buildings 2B.3 and 2B.10. Thus the wall painting tradition is not replaced by pottery decoration in the Early Chalcolithic, although there are certainly clear parallels between the two (compare French 1962 pl. 2 and fig. 9-4). It simply becomes less visible archaeologically because upper storeys do not preserve well archaeologically. Like the wall paintings, many features and activities previously located on the ground floor are moved upstairs in the Early Chalcolithic. For instance, fine white plaster seems to be applied in the upper storey rather than on the ground floor, and features such as hearths, ovens, and compartments probably also move upwards.

This development does seriously affect the possibilities for archaeologists to reconstruct the nature of buildings and the uses to which they are put. Contextual data are of essence to such an enterprise, and this study has been geared at bringing to the fore the types of questions that can be posed to such data. In the case of Canhasan I, however, the problem may also relate in part to the excavation methods applied. Many buildings at Canhasan were not excavated to the floor level (for instance in buildings 2B.1 and 2B.2), and in only one level 2B building did excavations proceed to sub-floor levels. In these circumstances it is not possible to determine whether, for instance, the practice of burying people beneath building floors existed in Early Chalcolithic Canhasan I. To such questions only renewed excavations can bring answers.

The really interesting question in relation to the construction of upper storeys at Canhasan I is why people started to construct two-storey structures in the Early Chalcolithic. In many matters the settlement configuration was similar to that which we have seen at the other clustered neighbourhood settlements of Central Anatolia. People were living in close clusters of buildings and it would appear that similar principles operating elsewhere were also at play at Canhasan I: the neighbourhood residents would have formed a corporate group, and the members of which interacted closely with one another both in daily activities and probably also in ritual matters. Notwithstanding these similarities, people at Canhasan I chose to modify the settlement form by introducing two-storey architecture.

Various reasons could be put forward for this development, such as: a scarcity of good building locations in a settlement where people wanted to live in a specific neighbourhood; matters of prestige (*cf.* Çevik 1995); and the need to create non-domestic spaces that could be used for storage purposes or as workshops. Many of these factors could be associated with the fact that

Canhasan I might have been a central place in a wider network of dependent smaller settlements (§8.1.1), and it could be argued that the buildings at Canhasan I became two storey structures in response to this development (for instance some form of craft specialisation might have occurred at this time).

Little of this can be proven at present, and much additional research would be required to obtain an adequate understanding of the Early Chalcolithic Canhasan I. One final point I want to stress however is that the development of upper storeys at this site need not have been linked to the demise of the clustered neighbourhood settlements as a whole. First, it is clear from the Canhasan I evidence that two storey buildings and clustered neighbourhoods are not mutually exclusive but may co-exist for long periods of time. In fact, one of the reasons why people may have started to build two storey buildings may have been their desire to maintain a clustered corporate residence group, while being faced with a lack of space on the ground.²⁶⁷

Second, Early Chalcolithic Canhasan I is not necessarily representative for the development of clustered neighbourhood settlements in Central Anatolia as a whole. These developments probably occurred along different trajectories amongst various local communities. Certainly the evidence that we possess does not suggest a unified development in all of Central Anatolia. At Çatalhöyük the clustered neighbourhoods disappear in the upper levels V-I that can be dated to the Late Ceramic Neolithic, to be replaced by a more open form of settlement, in which people related more directly to the houses they inhabited, and building continuity and clustered neighbourhood life was no longer central to society. At the Late Ceramic Neolithic level I at Erbaba, the clustered neighbourhood settlement type was still the preferred one, but housed a local community radically smaller in scale than that of Çatalhöyük, one that participated in a wider settlement system of equally small sites. If my argument that the Erbaba buildings also had upper storeys is correct, it appears that two-storey buildings were not solely associated with central places, such as Early Chalcolithic Canhasan I. The central point in this excursion is that we cannot draw the scattered evidence from the various Central Anatolian Neolithic and Early Chalcolithic settlements that have been discussed in this study into a single narrative that explains the demise of the clustered neighbourhood settlement type. Rather, it is more likely that various local developments took place, some of which might have contradicted one another. Finally, it is perhaps counterintuitive to note that, despite the fact that clustered neighbourhood settlements occur in the Late Ceramic Neolithic at Erbaba and in the Early Chalcolithic at Canhasan I, the best evidence that we have concerning the reasons why this settlement type may eventually have lost its appeal to Central Anatolian communities is to be found in the Early to Late Ceramic Neolithic transition at Çatalhöyük.

²⁶⁷ If this argument holds true, enclosed open areas internal to the neighbourhoods of the type encountered at Aşıklı Höyük and Çatalhöyük should be much rarer at Canhasan I.

CHAPTER 9: CONSTRUCTING COMMUNITIES IN THE CENTRAL ANATOLIAN NEOLITHIC

The study of the formation of the first large sedentary communities in the context of the Near Eastern Neolithic in general, and the Central Anatolian Neolithic in particular, is characterised by a remarkable paradox. The formation of communities in this cultural horizon is generally considered as a negative development forced upon Neolithic people by a combination of demographic and climatic factors, notwithstanding considerable evidence to the contrary, by scholars who are themselves rooted in large complex societies. It will be argued that this perception of the formation of large communities is rooted in a discourse of nostalgia that has dominated western society since the industrial revolution, and that we need to reject many of the inherent elements of that discourse in order to fully understand Neolithic communities.

In this chapter I want to explore the mechanisms through which societies were constituted in the context of the Central Anatolian Neolithic. Central to this topic is the idea that societies may be configured in culturally specific ways, and that different types of social collectivities may be articulated in relation to each other in highly particular constellations. Writing in this manner about social configurations of the past is burdened by models in which the individual and the individual families are juxtaposed to society at large. Applying this approach to the settlements of the Central Anatolian Neolithic makes it possible to move beyond normative evaluations on the nature of these communities to an understanding of the manner in which social systems were constituted in daily life, and may provide insights into the reasons that motivated Central Anatolian Neolithic people to live together.

9.1.1 COMMUNITY AND SOCIETY

Any study that deals with the reconstruction of past social configurations is by default written within the context of an existing discourse on social associations that determines the ways in which we perceive social life, and this study dealing with the social configurations of the Central Anatolian Neolithic is no exception. For this reason it is essential to discuss this tradition of discourse before we can embark on the topic of this chapter.

Two studies have been of fundamental importance to studies of social structure and were written towards the end of the 19th century by Tönnies (1887) and Durkheim (1893). These works were produced in the context of the transformations that occurred in northwestern Europe as a consequence of the process of industrialisation. In the course of this process societies were profoundly altered and many perceived this to be a transition in which the nature of society changed fundamentally. Social systems preceding and following the industrial revolution were juxtaposed and given normative values, in which both nostalgia and futurism played a role.

Tönnies formulated his classic opposition between ‘Gemeinschaft und Gesellschaft’ in the eponymous book in 1887. In this book Tönnies distinguished two principles of social organization: in which ‘Gemeinschaft’ was the characteristic type for small-scale societies, generally translated as ‘community’; and ‘Gesellschaft’ was associated with large differentiated societies, commonly translated as either ‘society’ or ‘association’.²⁶⁸ Community and society were contrasted by Tönnies in terms of economy, solidarity and personhood. According to Tönnies, society is integrated by a system of contracts, in which all transactions of labour and goods are performed for

²⁶⁸ See Kruijt (1954, 63-7), König (1968, 14-21), and Delanty (2003, 32) for a discussion of the problems inherent in the translation of ‘Gemeinschaft’ and ‘Gesellschaft’ to other languages.

the purpose of making a profit (Tönnies 1912, 48-9).²⁶⁹ In such a system, each individual is constantly striving to gain at the cost of others, and, by consequence, there can be no true solidarity. By contrast, in the community people strive to be economically autonomous, but if necessary, community members will help each other without expecting any real compensation (Kruijt 1954, 67-74).

In another classic book 'De la division du travail social' Durkheim (1964 [1893]) drew a related distinction between 'mechanical solidarity', on the one hand, and 'organical solidarity', on the other.²⁷⁰ Mechanical solidarity occurs where people share a similar outlook, and / or, a similar position in society. Mechanical solidarity is particularly strong in cases where those shared principles are being threatened (Durkheim 1964, 102). For instance, murder, along with many other crimes, is generally considered a threat to public morale, and is addressed in order to restore stability (*ibid.*, 100).²⁷¹ By contrast, organic solidarity rests upon differences between people and their interdependence, and is increasingly common in economies in which labour is specialised (Durkheim 1964, 149-50). Durkheim uses the gender differences between male and female, as they existed in the late 19th century, as his prime example for this type of functional differentiation, but applies it more generally for specialisation, in particular with regard to the division of labour. Organic solidarity is based on the interdependence of people in an economy in which labour is increasingly specialised (*ibid.*, 149-50). For Durkheim organic solidarity is no less natural than mechanical solidarity.

For Tönnies the community was the preferable and natural mode of human association, whereas the society was seen as an artificial modern construct. In the small scale community people know each other firsthand, and in many different capacities. Furthermore, communities were seen as traditional and as having egalitarian modes of integration. Similarly, Durkheim saw mechanical solidarity as the original type of social organisation.

The historical situation in which Tönnies and Durkheim formulated their theories is of considerable importance, because we shall see that the community society dichotomy is heavily invested with normative values on the one hand, and that they are conceived as mutually exclusive types of association, on the other.

In relation to the community society dichotomy proposed in the work of Tönnies and Durkheim two points are stressed. The first concerns the relation between the two forms of social association. The second consists of the normative values that have been attached to this duality.

Tönnies (1912, 66) and Durkheim (1964, 133-46, 174) both argue that the community type of association was historically precedent to that of society. Durkheim characterised these communities as 'hordes', which were built up of segments, or clans, organised on the basis of

²⁶⁹ This opposition is mirrored in the following quote from Weber: "Vergemeinschaftung" soll eine soziale Beziehung heißen, wenn und soweit die Einstellung des sozialen Handelns – im Einzelfall oder im reinen Typus – auf subjektiv gefühlter (affektuellem oder traditionaler) Zusammengehörigkeit der Beteiligten beruht. 'Vergesellschaftung' soll eine soziale Beziehung heißen, wenn und soweit die Einstellung des sozialen Handelns auf rational (wert- oder zweckrational) motiviertem Interessen ausgleich oder auf ebenso motivierten Interessen verbindung beruht." (Weber 1972, 21).

²⁷⁰ I have not come across a single reference to Tönnies in Durkheim's book, whereas he does refer quite regularly to sources in German. It seems plausible that Durkheim was unaware of Tönnies' book at the time he was writing 'De la division du travail sociale'. Delanty (2003, 36) mentions a review by Durkheim of Tönnies book published in 1889, some six years after his own book appeared.

²⁷¹ An example of such a type of relating is given by Bourdieu (1977, 161) on the Kabyle: "Doing one's duty as a man means conforming to the social order, and this is fundamentally a question of respecting rhythms, keeping pace, not falling out of line. "Don't we all eat the same wheatcake (or the same barley)?" "Don't we all get up at the same time?" These various ways of reasserting solidarity contain an implicit definition of the fundamental virtue of conformity, the opposite of which is the desire to stand apart from others. Working while the others are resting, staying in the house while the others are working in the fields, travelling on deserted roads – these are all suspicious forms of behaviour."

egalitarianism. According to Durkheim in such a society: “social life is made up exclusively of common beliefs and of common practices which derive from unanimous adhesion a very particular intensity” (Durkheim 1964, 178). Apart from such purely speculative original communities, however, community and society were seen as two co-existing types of social association, although the industrialised west was perceived as being dominated by society whereas community had been more important in earlier periods (Durkheim 1964, 129; Weber 1972, 22-3; Delanty 2003, 33). Gusfield (1975, 11) states:

“‘Community’ and ‘society’ do not describe any known actually existing society nor any of historical existence. They are analytical and not empirical terms; concepts invented to help the analyst think about and talk about change and human associations.”

More recently, the distinction between an economy based on contract, on the one hand, and a socially embedded economy, on the other, can be found in the work of Bourdieu (1977, 172-3). In his model the two are co-existing within the same society, serving different purposes. The socially embedded economy, or ‘good-faith economy’ exists among relatives and acquaintances. In this relation it is considered bad manners to try to make (much) profit, and economic transactions are often disguised as social relations (for instance gift exchange). In the contract economy, in which strangers exchange goods or services in the neutral market place, it is allowed, and even considered honourable to maximise profits, and there is no need to disguise the nature of economical transactions. The distinction between the two types of economy is clarified best by the example of an animal that was injured while on loan to a third party. In the case in which the lender is a relative or associate the responsibility of that person tends to be minimised, but, by contrast, if the lender is a stranger, full compensation for the damage will be demanded (Bourdieu 1977, 174). This example is especially interesting because similar examples can easily be found in our own society. Bourdieu thus illustrates the fact that the two types of economy are coexisting, both in so-called ‘primitive’ societies, and in modern societies. The shift from a traditional economy to a capitalistic one then become a shift in balance of the two principles, rather than an exclusive shift from one type to another. Despite the complementary nature of community and society, the concepts have often been reified. Social groups have often been discussed as examples that are typical of either community or society, and I will discuss archaeological examples of this later in this chapter.

Tönnies (1887)	Durkheim (1893)
COMMUNITY	MECHANICAL SOLIDARITY
-local -natural -solidarity -equality -independence is ideal -reciprocity	-based on likeness -primal -collective -independence is ideal
SOCIETY	ORGANICAL SOLIDARITY
-dispersed -artificial -competition -inequality -interdependence -contract	-based on difference -‘civilized’ -individual -interdependence

Table 9.1: Characteristics of the two forms of social organisation as defined by Tönnies and Durkheim.

The community - society duality has been given normative values both in the period that this duality was first articulated and in more recent times (Brown 2002; Delanty 2003, 15-21). In most, but not all cases, communities were idealised, and life in modern society was seen as stressful, insecure and unsatisfying. Thus, in many ways the community - society duality may reflect a set of relatively recent pre-occupations with forms of social association, and could project utopian models onto small-scale societies in the present and the past. This has been a major critique on studies that have focussed on communal forms of social associations (König 1968, 5; Cohen 1985, 28-36).

Community and societies are not modern concepts, however. Some of the defining elements of communities seem to play a role in ritual practices, in particular with regard to 'rites of passage' as described by Van Gennep (1909). These rites of passage are structured in three stages: first, rites of separation; second, rites of liminality; and, third, rites of incorporation. In the second liminal stage of the rites of passage, elements similar to those of communities are present. People in the liminal state are devoid of rank or status, anonymous, without personal relations, tested, and often humiliated, obedient and silent, equal to each other, without care about personal appearances, and often naked, or even treated as sexless (Turner 1969, 106-7). To describe the type of social relations in this liminal stage Turner coined the phrase '*communitas*' (*ibid.*, 96). The *communitas* is the opposite to the position of a person in normal society, which is characterised by: "a relatively stable state, and, by virtue of that, by rights and obligations vis-à-vis others of a clearly defined and 'structural' type" (*ibid.*, 95). Normal society is defined by Turner as 'structure', whereas the liminal state of being is 'anti-structure', the negation of ordinary rules and relations. *Communitas* and structure are interdependent, one cannot exist without the other (Turner 1969, 129).

The liminal state of being is in most cases only a temporary condition, which marks the transition to another state of being. An example taken from modern society are the rituals through which new members of student fraternities are put. In addition to such people who are temporally in a liminal state, Turner recognises groups that are in a liminal position more permanently, be it specific persons, for instance the cowboy in westerns, or groups, most notably millenarian movements (Turner 1969, 111; Brown ed. 2002). What is particularly interesting about *communitas* is that many clear examples are known to have existed in pre-modern times. Indeed, one of Turner's prime examples of *communitas* is the formation of the order of Saint Francis, and many other examples could be mentioned both from antiquity and ethnography (see also Brown 2002). This seems to suggest that *communitas* is a cross-cultural phenomenon.

The almost complete overlap between *communitas* and community as discussed by sociologists, seems to suggest that the two are interrelated. In other words, Durkheim and Tönnies used the format of an archetypical pre-existing social formation that is by definition interwoven with 'society'. Thus 'community' cannot simply be seen as a utopian projection of romantic scholars, but neither is it likely that small-scale societies would have been exclusively of the 'community' type of association. On the other hand, it is likely that the utopian qualities of the community may have played as important a role in the past as they do today.

The dichotomies proposed by Tönnies and Durkheim have been of profound importance in the development of the social sciences, and their work continues to be of key importance in the present (Amit and Rapport 2002; Brown 2002; Delanty 2003, 28-49, 186-9). I will proceed to provide a brief overview of the ways in which communities have been conceptualised in the discipline of sociology. The community type of social association has been studied especially by the 'Chicago school' (Gusfield 1975, 91; Cohen 1985, 21-8), who studied small communities, that were seen as providing security and solidarity, and which were contrasted to modern urban society, in which personal freedom provides opportunities for development, but in which solidarity is less important. Further, they asserted that in communities people know one another as 'whole', whereas in urban society social life is 'atomised' (Park 1929). Gluckman described the social relations in small communities as 'multiplex'. In a multiplex relation people interact with one another in

multiple roles (1962, 26). In contrast in modern societies most social relations are ‘simplex’, in which people often interact with one another only in a single capacity.²⁷²

The Chicago school has been criticised both for romanticising communities and for reifying them (König 1968, 155). By contrast, the post-modern position on communities has stressed the ascriptive and symbolic dimensions of community. Cohen (1985) views communities as ‘symbolic constructs’, and for him communities are about the symbolic construction of boundaries, that can be interpreted differently depending on context and personhood (Delanty 2003). In this view communities are about the manipulation and contestation of identities. Communities are fluid and changing entities rooted in the actions of groups united by their common purpose.

The problem with this symbolic constructionist view of communities is that they are envisaged primarily as cognitive phenomena, and that little account is taken of the daily practice through which communities are constituted. Amit and Rapport (2002) label the type of communities on which Cohen’s view was based ‘imagined communities’, and contrast them with actual groups that act in society. Such communities cannot be created through the act of imagining or attributing (Amit and Rapport 2002, 20). Moreover, personal networks do not constitute community, because they do not rest on categorical associations (*cf.* Cohen 2002, 170). Instead it is argued that: “the effort to construct communities is fundamentally an effort, whether successful, partial or failed, to mobilise social relations” (Amit and Rapport 2002, 20). That effort is undertaken on the basis of a construction and adherence to categories that are shared by the members of a community.

Amit illustrates this with the example of the Armenian community in London. Due to the fact that this group is composed of individuals speaking a variety of different dialects and adhering to three different political movements, as well as the fact that many Armenians have integrated in the society they live in, to the degree that they often do not speak much Armenian anymore, the group is highly fragmented. In order to unify these people the common history of Armenians is stressed. It is argued that the construction of a common view of history creates a form of unity within the fragmented Armenian community that allows them to feel united, and act collectively (Amit and Rapport 2002, 53). The community as conceptualised by Amit is not clearly bounded, is not an autonomous self-sufficient unit, and does not consist of group of people that are homologous and organised along egalitarian principles. Moreover, people can be part of several different communities at one and the same time.

Summarising the main conclusions of this section. First, the community - society duality was articulated in a period in which life in large societies and the monetisation of the economy were valued negatively by most intellectuals, and this idea has remained with us and to a large degree determines the ways in which we conceptualise life in small communities and larger settlements. Second, community and society are not mutually exclusive types of social organisation, but instead are interdependent. Third, this duality is often considered in a normative manner, and this occurs both in industrialised societies and in others. Fourth, the normative character of the duality and the totalising perspectives that are often taken towards communities and societies, in which for instance the relation of the individual to the whole is the focus of analysis (Redfield 1955), has detracted from the analysis of how communities and societies are constituted on a daily basis.

9.1.2 COMMUNITY AND SOCIETY IN ARCHAEOLOGY

In this section I will explore the influence that the community and society duality has had in the discourse of archaeology. Given that from the 1960s onwards archaeologists have frequently used models from anthropology, I will occasionally include perspectives from anthropologists, but these will not be placed in the context of their own discipline. Furthermore, I will include both models

²⁷² Gluckman (1962, 34) suggests that multiplex societies are characterised by lots of rituals, which are necessary in order to distinguish the different roles of individuals. In his view such rituals are not necessary in simplex relations, since roles are more clearly demarcated.

based directly on the community - society duality and those that are known as neo-evolutionist in archaeology.

The first perspective that I shall mention was put forward by Renfrew (1974; 2001) who differentiated between group-oriented and individualising societies. According to Renfrew (2001, 103) group-oriented societies assign little importance to prominent individuals and yet are capable of significant collective social action, expressed in, for instance the construction of large monuments such as Stonehenge.²⁷³ By contrast, in individualising societies the elite distinguishes itself from the rest of society by means of conspicuous display and consumption. A very similar distinction can be found in a paper published by Douglas (1982) who distinguished between group and grid oriented societies, in which the latter is seen as the dimension for individuation, and the former as a dimension for social incorporation. Other scholars (Blanton *et al.* 1996; Feinman 2000) have drawn a parallel distinction between exclusionary and corporate power in which exclusionary power is exercised in networks of personal relations, whereas corporate power is shared across different groups and sectors of society and in which exclusionary strategies are countered. In my perspective all these classifications of societies into corporate and network type are transformations of the ideas first put forward by Tönnies and Durkheim, which are themselves transformations of a more universal duality of community and society.

Social structure has also been of great importance to archaeologists working within a social evolutionist framework. The most common approach to tackle changes in social structure has been to classify societies in a series of developmental stages, such as Services' (1962) fourfold classification into bands, tribes, chiefdoms, and states, or Frieds' (1967) distinction of egalitarian, ranked, stratified and state societies. More recently, a similar classification into: first, the family level group; second, the local group; and, third, the regional polity, was proposed by Johnson and Earle (1987). These classifications have been, and still are, of great influence in archaeology (Redman 1978; Price and Feinman eds 1995; Gosden 1999, 481; Parkinson ed. 2002). What these classifications have in common is that the total spectrum of societal forms is condensed into a few types, the organising principle of which is a relation between population size and social complexity, and more specifically social inequality (Redman 1978, 186; Claessen 1981, 22-4).

Social evolutionism has come under attack because, amongst other issues, the classification of societies into a few types makes it difficult to study transitional stages and changes in social structure, and because these ideal types do little to elucidate the specifics of archaeological cases (Hodder 1982a; Shanks and Tilley 1987a; Renfrew and Bahn 1991, 157; Trigger 1998, 159-60). What is of importance in relation to this study, however, is the way in which Neolithic societies have been conceptualised in relation to these typologies. Most scholars have placed Neolithic societies either in the tribe or the chiefdom category (Renfrew 1974, Redman 1978, 202; Renfrew and Bahn 1991, 156; Bar-Yosef 2001). Regardless whether Neolithic societies are classed as tribes or chiefdoms, they are generally interpreted as egalitarian and household based, with little specialisation of labour, and in which each household acted as an autonomous economic unit (Flannery 1972a; Hodder 1990; Byrd 1994; Kuijt 1999, 97-8; Byrd 2000; Flannery 2002; Akkermans and Schwartz 2003, 98). Thus Neolithic society as it is most often portrayed corresponds closely with the community type of social formation, whereas society is generally held to develop in later periods.

In the preceding section it has been established, however, that neither community nor society can exist independently, but that these two forms of social association must by definition co-exist. In this respect, the fact that archaeologists have generally equated Neolithic social formations with communities is of interest in two ways. First, it could be argued that archaeologists have collectively fallen into the trap of narrativism, in which societies are seen to develop from simple to complex in a more or less linear manner (Connerton 1989, 1; Gosden 1999, 481-2). However, the absence of conspicuous display and consumption is a real property of many archaeological

²⁷³ In the original paper Renfrew explicitly links his classification to that of Durkheim (1964, 83-4).

horizons (Stein 1994, 39-40; Renfrew 2001, 104). This leads to a more interesting second point. It has been argued that the apparent egalitarian nature of Neolithic societies was in fact an ideology masking profound differences in status and power (Kuijt 1999, 97-8; 2000; 2001).²⁷⁴ This proposition is much more plausible than one in which Neolithic societies are reconstructed as egalitarian, and allows for the co-existence of both network and group mechanisms.

An additional advantage of the position taken by Kuijt is that it allows us to move away from an essentialist classificatory type of study, in which the concern is with which type of social association we are dealing, to one in which the focus is on the actual forms that human social collectivities take and how they are interrelated (McGuire and Saitta 1998, 275; Feinman 2000, 153; Kovacik 2002, 52). Such a holistic perspective to social systems will be followed later in this chapter.

9.1.3 SOCIAL COMPLEXITY AND THE NEAR EASTERN NEOLITHIC

The fact that the Near Eastern Neolithic was the first period in which humans started to live in large and permanent associations has been given surprisingly little attention in the archaeological literature (*cf.* Davis 1992, 345; Garfinkel 1998, 225). Studies of the Near Eastern Neolithic have focused either on the ecological aspects of the transition, such as the climatic conditions during the period of initial domestication, morphological changes in plant and animal species, and processes of domestication (Rindos 1984; Van Zeist and Bottema 1991; Hillman and Davies 1992), or on symbolism and rituals in the Neolithic (Hodder 1990; Cauvin 1997; Verhoeven 2002a; Watkins 2004). Apparently the formation of large associations of people is seen as self-evident development that does not require further investigation (but see Byrd 1994; Kuijt 1999; 2000).

From a long-term perspective, however the development of large social aggregates is a relatively recent phenomenon in human history. During the enormous period of time that covers the Palaeolithic most human associations seem to have been either fairly small, or, when larger, short lived in nature, taking the form of periodic festivals (Wilson 1988; Kosse 1994; Bogucki 1999, 150-1; Ingold 1999). In recent hunter-gatherer-fisher societies groups are normally in the range of thirty to sixty people and sharing of food is widespread, and it is commonly thought that Palaeolithic groups were constituted in similar ways (Service 1979, 25; Ingold 1999, 401).

It is clear from a variety of examples, including the Natufian, the Jomon culture in Japan, and Early Classic Thule settlements in Canada, that hunter-gatherer-fisher communities can become both large and fully sedentary in conditions where rich and reliable food supplies are available (Dyson-Hudson and Smith 1978; Testart 1982; Rowley-Conwy 2001, 58-62), and that such types of association are not necessarily related to agriculture. It seems that these large hunter-gatherer-fisher communities may have first occurred in the Holocene (Mithen 1996; Bogucki 1999; Watkins 2004).²⁷⁵ One thread of evidence that seems to support this reconstruction is the lack of substantial built settlements in Palaeolithic archaeology (Gamble 1999).

Regardless of the period in which we first reconstruct large sedentary human communities, the crucial difference between agriculture on the one hand, and economies that depended on rich and reliable natural resources in favourable parts of the landscape on the other, was that agriculture allowed communities to sustain themselves and expand to other regions to a degree that was not

²⁷⁴ A large body of literature has been devoted to social inequality in the past, as well as to the question whether egalitarian societies exist and in what form (Johnson 1982; 1989; Wason 1994; Price and Feinman 1995). In the context of archaeology, however, it is not particularly illuminating to classify societies as egalitarian, ranked or stratified, because these types of social relations may co-exist and their relative importance may shift in a dynamic fashion that we can no longer reconstruct (McGuire and Saitta 1998, 275). Moreover, the 'social inequality question' isolates and magnifies one particular element in social life, which is only of interest within the context of the total system of social relations (Feinman 2000, 153).

²⁷⁵ The Holocene constituted the first interglacial in which anatomically modern humans were present, and this has been used to explain the increased sedentism and the emergence of agriculture in this period (Sherratt 1997; Layton 1999).

possible in hunter-gatherer-fisher economies. From a social perspective, however, large sedentary hunter-gatherer-fisher communities may have been very similar to early farming communities (Flannery 1969; Bender 1978; Bogucki 1999; Bar-Yosef 2001; Renfrew 2001, 102).

The question why humans started to live in large sedentary groups relatively recently remains one of the big questions in archaeology. The answers that have been given to this question have mostly focused on push factors, such as changes in climate and population pressure. This is caused by an essentially pessimistic view of life in large communities that is seen as stressful and evolving out of a set of conditions that force people into closer proximity. The idea that the large communities that developed in the Neolithic of the Near East were increasingly stressful to live in seems to be shared by many scholars (Service 1962, 101; Johnson 1982; 1989; Byrd 1994; Halstead 1999; Kuijt 2000; Steadman 2000; Carneiro 2002, 37).

It is plausible that this view of social life as intrinsically stressful and involuntary is strongly influenced by the community - society dichotomy discussed above (§9.1.1), in which life in large associations is valued negatively. The persistence of that view is surprising given the relatively few conflicts that characterise interactions in most modern urbanised societies. It is clear that many people in the modern world prefer living in large metropolises to a life in the countryside, although the reverse is also true. More fundamentally, the idea that conflict is more pronounced in societies with larger populations and densities can be questioned. For instance, it has been argued that war is as prevalent in hunter-gatherer-fisher societies as it is in the modern world (Keeley 1996; Rosenberg 2003).

The idea that people were being forced into living in large permanent communities has little evidence to support it. There is no good evidence for population pressure either directly preceding the Neolithic (Pennington 2001) or in the Neolithic itself (Peltenburg *et al.* 2001, 57; Akkermans and Schwartz 2003, 46). Moreover, we find many large sites in the Near Eastern Neolithic, with sizes over 10 ha, and whose populations may have run into the thousands (Rollefson 1987; Kuijt 1999; Moore *et al.* 2000, 5; Gebel 2002; Rosenberg 2003) that are located in seemingly empty landscapes, such as Çatalhöyük (§6.1.3; Baird 2002) and a number of large LPPNB sites in Jordan, including 'Ain Ghazal and Wadi Shu'eib (Simmons 2000, 217; Kuijt and Goring-Morris 2002, 424).

In these circumstances population pressure does not seem a convincing explanation for the formation of large sedentary communities. Further, given the absence of population pressure as a driving force, climatic changes are also less compelling as push factors in this development. Moreover, the effects of climatic changes would have varied considerably across the Near East with different trajectories in each region (Van Zeist and Bottema 1991). In some regions, such as the Levant, the Younger Dryas stadial may have had profound effects on the subsistence base of local communities, and it has been argued that this was the context in which the initial domestication of plants first occurred (Henry 1989; Sherratt 1997; Bar-Yosef 2001; Verhoeven 2004). However, this reconstruction has become less plausible in recent years because it has been demonstrated that: first, wild cereals, which constituted the main subsistence base in this period, did not become scarce during the Younger Dryas stadial (Bottema 2002, 37); and, second, the first domesticated crops appear in the Early PPNB period and predominantly in Southeastern Turkey, rather than in the PPNA in the Levant proper (Nesbitt 2002). It is now generally agreed upon that the domestication of plants and animals took place in a region much larger than the southern Levant, initially defined as the core region, that includes the Taurus and Zagros foothills, and Cyprus (Nesbitt 2002; Rollefson and Gebel 2004; Peltenburg and Wasse eds 2004). In many of those regions, such as the Taurus and Zagros foothills, climatic changes would have had much less dramatic effects than in the Southern Levant, and the vegetation zones would have shifted, rather than have disappeared altogether.

A recently proposed push factor to explain the large sites encountered in the Near Eastern Neolithic is that warfare forced people to agglomerate in large settlements for safety purposes (Rosenberg 2003, 97). No solid evidence for fortification has been found in the excavated sites,

however, and neither has other conclusive evidence been found, such as indications of violent deaths in graves.²⁷⁶ By contrast, in the period directly following the Neolithic in Anatolia, the Early Chalcolithic, we do have settlement sites with fortifications, such as Hacilar IIA and Mersin XVI, that surround settlements of a much more restricted size than those of the preceding Neolithic. In these circumstances the case for warfare as a factor causing people to agglomerate does not seem convincing.

Given that none of the push factors that have been identified as mechanisms operating towards the formation of large sedentary communities are convincing for the large settlements that develop in the later Aceramic Neolithic, it is appropriate to consider some of the pull factors that might have played a role.

In this regard the attractions of living in large communities for Neolithic people can be considered. Some of the reasons why people first became interested in living in larger associations may have been similar to the aspects of social life that we esteem in our own societies, such as the chance to engage with a large number of other people (Runciman 2001, 245), the possibility for creating specialised facilities that benefit everybody in larger groups (Adler 1989; Adler and Wilshuysen 1990; Bradley 2001; Renfrew 2001), and the attraction of communal events, such as feasting and dancing (Bender 1978; Hayden 1990; Garfinkel 1998). In short, one aspect that may have played an important role is the “development of the long-term investment in complex social relationships” (Layton 1999, 112) that may have made life more interesting.

There is much in the evidence of the Near Eastern Neolithic to suggest that the creation of communities was a central element. It has been suggested by Bender (1978) and Hayden (1990) that conspicuous consumption and feasting may have played an important role in the early Neolithic, providing the incentive for the production of large amounts of meat and vegetal foods for these occasions. The main focus in these articles was on the fact that domestication may have come about as a corollary to the social competition of aggrandisers, but here it is stressed that feasting has an important social function as well: that of creating social relations amongst the participants.

The problem with the ‘feasting’ hypothesis in the context of the Near Eastern Neolithic is that, while there is some evidence at present for feasting, for example at Hallan Cemi (Rosenberg 1999, 26), and Çatalhöyük (Russell and Martin 2005, 54-5), these instances are so far isolated. Therefore no convincing case for a link between feasting and domestication can be made. Moreover, the idea that cereals were a ‘luxury food’ (Hayden 1990, 46) seems unconvincing in habitats where wild cereals were abundantly present and easily harvested, unless the argument that domestic cereals were mainly cultivated for the production of beer (Braidwood 1953; Katz and Voigt 1986) could be substantiated.

The idea that feasts and social gatherings may have played a prominent part can be approached on the basis of evidence other than the direct remains of feasting as well. For example Garfinkel has made an inventory of dancing scenes in the context of early settled societies in the Near East, arguing that these occasions were of great significance to the creation and reproduction of communities (1998, 223-6). His analysis of dancing scenes includes stone reliefs from PPNB sites and painted pottery shards from the Ceramic Neolithic horizon. The problem with Garfinkel’s thesis is that the dancing scenes from Epi-Palaeolithic and Aceramic Neolithic sites are very few and not particularly convincing (Garfinkel 1998, 212, fig. 1), and in my evaluation it is only in the later Ceramic Neolithic period that the dancing scenes constitute a coherent and convincing motif. The fact that there are no good dancing scenes in the earlier period does not mean, of course, that dancing was not practiced and of importance, but the evidence simply does not allow us to evaluate its role.

²⁷⁶ Moreover, the basic tenet of the argument, that there is safety in numbers, seems to be questionable. One only has to point to specific cases such as those of the Huns and the Vikings to demonstrate that numbers are not always important in warfare.

More conclusive evidence for feasts and social gatherings can be found in the form of public buildings of various sorts. The public buildings of the Aceramic Neolithic of the Near East are well documented and their importance can hardly be overlooked. At a large number of sites, such as Jericho, Aşıklı Höyük, Jerf el-Ahmar, Çayönü, 'Ain Ghazal, Beidha, Nevalı Çori, and Göbekli Tepe, public structures have been found of various sorts, and more unexcavated sites with similar structures are known from surveys (Bar-Yosef 1986; Esin 1993; Hauptmann 1993; Byrd 1994; Schmidt 1998; Hauptmann 1999; Schmidt 2000; Stordeur and Abbès 2002; Verhoeven 2002a). These buildings stand out from domestic structures due to the fact that their form, size, inventories, and the building materials and building technologies used, differ substantially from those used in other buildings. There is a considerable amount of variation in the actual form and execution of these structures, some of which are completely singular, such the tower at Jericho, while others are part of a larger group and can be compared fruitfully, such as the buildings of Göbekli Tepe and Nevalı Çori.

What is evident, however, is that large amounts of labour went into the construction of these structures (Schirmer 1983, 476; Byrd 1994, 657). Given that a large group of people must have laboured on these structures for a considerable period of time, it is clear that this shared activity may have been an important component in the construction of communities. Such a hypothesis has been proposed in the context of megalithic monuments of the Neolithic of northwestern Europe (Renfrew 2001, 109), but may be applied equally well to the public structures of the Near Eastern Neolithic.

What is of special interest is that Bradley (2001, 70) notes that many of the megalithic monuments of northwestern Europe were constructed at a time before a farming economy was well established. This is mirrored in the Near East by the site of Göbekli Tepe, a site consisting completely of cult buildings and lacking any evidence for domestic structures, bones of domesticated animals or seeds of domesticated plants (Beile-Bohn *et al.* 1998; Peters and Schmidt 2004). The site could have been used as a gathering place for mobile hunter-gatherers from the surrounding region, or, alternatively, by early sedentary communities. Two elements relevant to the conceptualisation of Göbekli Tepe should be noted. First, the main activity at the site, connected to layer 3, can be dated to the PPNA / EPPNB, that is the initial stage of sedentarisation in this region. In later phases of the Aceramic Neolithic we find villages with a single cult building, for instance at Çayönü and Nevalı Çori, but no sites with only cult buildings such as Göbekli Tepe. Second, even by a conservative estimate there are at least 20 cult buildings at the Göbekli Tepe (Schmidt 2003, 4). Given that layer 3 probably lasted no more than a few centuries (Thissen 2002a), this is more than one would expect. It could be suggested on this basis that the individual buildings were in use for relatively short periods of time, and that the process of their construction was perhaps more important than actual use.

Using these buildings as an example it can be argued that at the basis of the creation and reproduction of communities may have been practices of involvement, and that people were actively constructing these new social relations. Such a perspective allows us to move away from the idea that people were somehow forced into living in permanent sedentary communities, either by climate or population pressure or a combination of the two. The processes of sedentarisation and community building were facilitated by new technologies for food production, storage, and food preparation, rather than the reverse. If the proposition that living in large communities might have been attractive to Neolithic people is correct this could help us to start to make sense of the large sizes of many of the Neolithic communities, and the fact that many of the largest sites are located in more or less 'empty' landscapes.

9.2.1 THE CONSTITUTION OF SOCIETY

On the basis of the preceding sections it will have become apparent that the community - society duality is problematic because it has reduced social complexities to two ideal types. Instead, it is better to think of this duality in terms of network and group strategies that are complementary. In

network strategies personal contacts between people are of key importance, whereas in group strategies membership of a social collectivity is more prominent. These two strategies are embedded in different mentalities: in group strategies an appeal is made to a sense of belonging and to solidarity; whereas in network strategies the focus is on personal achievements and abilities (Blanton *et al.* 1996; Feinman 2000; Renfrew 2001).

Further, the community society discourse was initially rooted in a period in which the emergence of large cities and contract labour were valued negatively, and I have argued that archaeological explanations are still determined by this idea in two respects: first, that life in large communities is considered to be stressful; and, second, that people are thought to have been forced into the formation of large sedentary communities. It has been shown that the hypothesis that people were forced into large agglomerations cannot be substantiated, and that the negative connotations given to life in large settlements are detrimental to our efforts to understand how such large settled communities came about and why people continued to live in them.

Finally, the focus on the community - society duality and the ways in which individuals relate to societal wholes has detracted from the study of the manner in which societies are constituted on a daily basis in the course of both ordinary and ritual activities that bind people and constitute societies. In particular, the intermediate scales of social life, that are larger than households but smaller than the community or society as a whole have been neglected due to this focus (Feinman 2000; Kovacik 2002; Gerritsen 2004; Düring and Marciniak 2005).

To overcome these problems a clear terminology is required followed by a discussion that focuses on different scales of social life. In the remainder of this section I will present the terminology that will be used for discussing social configurations in the Central Anatolian Neolithic. In the following the term 'society' is used as a term inclusive of all social interactions, following the definition proposed by Giddens (1984, 164), in which societies are seen as social systems that stand out because definite structural principles produce a specifiable overall clustering of institutions across time and space (for all full quote see §2.4.2). In this definition societies are not bounded entities in time and space, and their edges are diffuse. In the context of the Central Anatolian Neolithic societies that are the subject of this study, for example, some institutions, such as the clustered neighbourhoods, occur in all instances, but others, such as communal buildings, are found at some of the sites only.

The large majority of social interactions that constitute society take place in a series of social collectivities, enduring social groups such as households, and local communities (*cf.* Service 1962, 11). It is obvious that the specific shape and importance of these collectivities varies from one culture to the next. One of the major points of this study is that archaeologists have too often interpreted Neolithic social formations in ways that closely resemble their own society, and that many of these interpretations often do not fit the data well (Düring and Marciniak 2005). Social collectivities consist of people that occupy social positions in that collectivity. The relations between people occupying these positions are to a large degree determined by social roles (§2.4.2; Giddens 1984, 83-9; López and Scott 2000, 29-31). These social roles do not necessarily depend on a shared consensus or a moral order (López and Scott 2000, 31-6), and they are both produced and reproduced in daily life. Much of the interaction in society takes place outside the context of social collectivities and the social roles associated with them. However, even in modern societies most people will be spending most of their time within their specific social collectivities (Bott 1957, 105-6), and it is these that form the specific configuration that define the essence of a particular society.

The view that I will propose for social collectivities is one that is grounded in shared activities and built upon personal relations, shared experiences and face-to-face interaction (Amit and Rapport 2002). This is an approach that we can use in archaeology, in that we can define some of the locales in which people came together in our sites. Such an argument, that communities are constituted in practices of involvement, has been recently put forward by a number of authors in both archaeology and anthropology (Yaeger and Canuto 2000, 5-6; Gray 2002; Kovacik 2002, 52;

Knapp 2003; Gerritsen 2004, 146). Amongst the shared activities that may foster social collectivities we can include shared manual labour (Knapp 2003; Trankell 2003), working towards a common goal (Amit and Rapport 2002; Gray 2002), the collective sharing of food and hearth (Halpern and Halpern 1972; Hugh-Jones 1995, 231; Janowski 2003; Trankell 2003), and co-residence in a neighbourhood or settlement (Trankell 2003; Gerritsen 2004). Taking such a perspective involves a consideration of the scale of social activities, given that shared activities that result in face-to face interactions and personal relations are by definition restricted to groups of a limited size, and this will be further explored in later sections of this chapter.

The aspect that is of interest to archaeologists in the perspective of social collectivities as grounded in daily activities and interactions is that these often have a material component. Building and settlement organisation structure social interaction to a significant degree, and by studying such features as hearths we can obtain an idea about the sharing of food and heat. This ‘engagement’ (Renfrew 2001, 96; see also Hodder and Cessford 2004) of social collectivities with material settings can be illustrated by the close link between the concepts of house, home, and family in our own society (Pallasmaa 1995). The house is much more than a shelter (Pearson and Richards 1994a; 1994b). A larger number of ethnographic studies show that the house is linked to social identities in many societies, albeit often in ways that differ greatly from our own (Rapoport 1969; Waterson 1990; Carsten and Hugh-Jones eds 1995; Joyce and Gillespie eds 2000; Sparkes and Howell eds 2003). It is to these types of interrelations between social collectivities and house and settlement forms that we now turn our attention.

In the remainder of this chapter the societies of the Central Anatolian Neolithic will be discussed. These will be approached from a holistic perspective, trying to outline the specific articulation and configuration of social collectivities on the basis of the evidence that we can glean from the settlement remains that have been discussed in chapters 4 to 8. In this manner the ways in which societies are constituted in the course of both ordinary and ritual activities that bind people and constitute societies, will be investigated. The discussion will be structured around the evidence for social collectivities, starting out with households, and subsequently deals with more inclusive social formations, such as the neighbourhood community.

9.3.1 HOUSEHOLDS IN THE CENTRAL ANATOLIAN NEOLITHIC

Households have been assigned a key role in synthetic analyses of the Near Eastern Neolithic. To summarise an argument that has been presented elsewhere (§2.4.3; Düring and Marciniak 2005), following a seminal paper by Flannery (1972a), many archaeologists, of both processual and post-processual denomination, have reconstructed Neolithic society as centred on autonomous and homologous households producing and consuming for their own subsistence needs and engaging in craft production for the production of the goods that they required (Bender 1978, 209; Hodder 1990; Byrd 1994; 2000; Hole 2000, 205; Watkins 2001, 497; Banning 2003, 14).

In this study households are held to range from autonomous and clearly bounded domestic groups residing in discrete buildings with evidence for storage of goods and most domestic and some craft activities performed within the residence, as manifested in the presence of special purpose activity areas and features in buildings, on the one hand, to households dispersed over disconnected spaces executing their domestic activities in locales not exclusively associated with any particular household, on the other. Defined in this broad manner, households are held to be a cultural universal, although their forms and degree of autonomy are highly variable from one group to the next (*cf.* Ingold 1999, 401).

What do we know about households in the context of the Central Anatolian Neolithic? A first remark that can be made is that in this cultural horizon the best evidence that we have at present for the reconstruction of households are the buildings excavated at the various sites that have been analysed in this study. Other potential evidence, such as burial data and craft production that could elucidate household activities, is available only to a limited degree.

Concerning the evidence from the buildings the following aspects are of importance in relation to the reconstruction of households: first, the extent to which modular building units can be distinguished in the built environment; second, the sizes of the buildings; third, the features that are present in these buildings and what they can tell us about the use of space; and, fourth, the diachronic aspects of buildings.

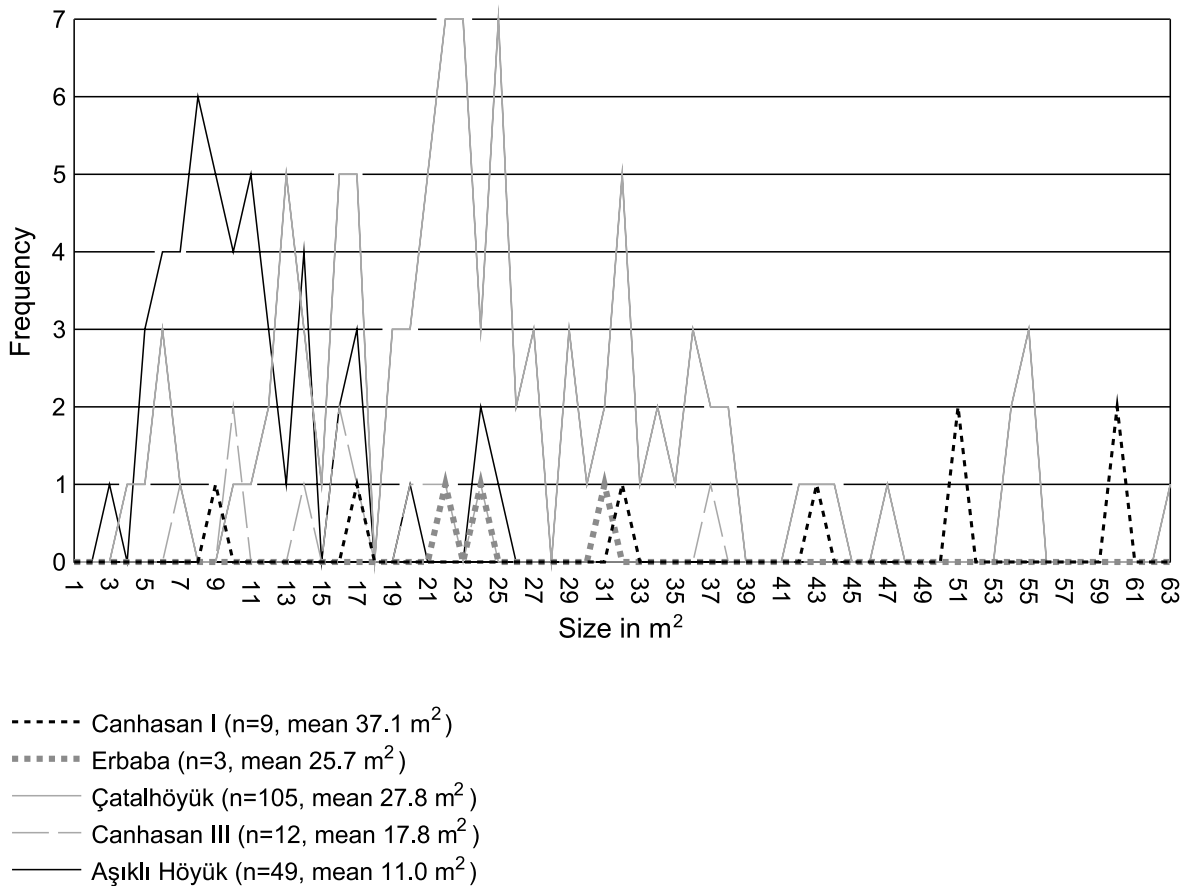


Figure 9.1: Interior sizes in m² of the building units of the Central Anatolian Neolithic clustered neighbourhood settlements distinguished per site (n=173, 5 buildings over 65 m² have been excluded).

Defining building units in the densely built up settlements of the Central Anatolian Neolithic is not in all cases a straightforward matter. In this study building units have been defined on the basis of the fact that room(s) are contained within their own set of outer walls and / or because rooms are connected through a doorway or porthole. At some sites, such as Çatalhöyük and Aşıklı Höyük the definition of building units is relatively clear and most buildings distinguished fall within a limited size range, and thus it possible to think of these buildings as modular units (§5.3.2; §6.3.2), although at both sites there is a minority of exceptionally small and large buildings. At other sites, such as Canhasan III and Canhasan I, the definition of buildings was also unproblematic, but the variability in building sizes is much larger, and it not possible to interpret these buildings as homologous entities (§4.3.3; §4.3.4; §8.3.3). Finally, at Erbaba, it was generally not possible to distinguish building units, but this is probably mainly due to the poor resolution of the published evidence (§7.3.2).

The sizes of building units at these sites vary considerably (see fig. 9.1). The buildings at Aşıklı Höyük have a mean size of only 11 m², those of Canhasan III are 18 m², at Çatalhöyük the mean interior building size is 28 m², at Erbaba it is 26 m², and at Canhasan I it is 37 m². Thus, mean building sizes increase over time during the Central Anatolian Neolithic. This development is even more pronounced if the hypothesis put forward that Erbaba and Canhasan I had upper storeys is correct (§7.3.1; §8.2.2), in which case the building sizes at these sites might have been double the amount of the ground floor storey that is represented in figure 9.1.

Another way of looking at the interior building sizes in the clustered neighbourhood settlements is the degree to which the buildings of a particular site are clustered in a specific size range. In this respect we can note that the buildings of Aşıklı Höyük cluster in the range of 4 – 18 m², and those of Çatalhöyük in the range of 9 – 39 m². For the Canhasan I and III sites such a clear clustering is not apparent, and this may indicate either that buildings were used for a larger variety of purposes than at Aşıklı Höyük and at Çatalhöyük, or that households varied more in wealth or status. However, for both the Canhasan sites, and for Erbaba, the sample is too small to make much of these differences at present.

If we take the average interior sizes of the ground floors of the buildings of the clustered neighbourhood settlements as representing possible living quarters (at Erbaba and Canhasan I people were probably living upstairs, but it is likely that the 2nd storey was approximately similar in size to the ground floor (§8.4.1)), we can calculate how many people could have potentially been associated with these buildings on the basis of cross-cultural averages.

From the application of the cross-cultural formulae relating roofed floor area to the number of inhabitants of buildings it is clear that despite the large variability in building sizes all could potentially have served as household residences, although the buildings of Canhasan III and particularly those of Aşıklı Höyük do appear to be rather small for this purpose. The expansion of building sizes that we can witness in the course of the Central Anatolian Neolithic could be explained in a number of ways, only one of which is that household sizes increased over time. Another possibility is that the space per person increased during this period. Finally, buildings do not equal households, and that in consequence interior building sizes are not necessarily informative on household composition or size. For instance, it has been argued in this study, on the basis of contextual evidence, that households at Aşıklı Höyük were probably fragmented over a series of rooms, rather than being associated with a particular building or cluster of rooms (§4.5.1).

Site	Mean size in m ²	Naroll 1962	Cook and Heizer 1968	Casselberry 1974
Canhasan I	37.1	3.7	8.3	6.2
Erbaba	25.7	2.6	7.2	4.3
Çatalhöyük	27.8	2.8	7.4	4.6
Canhasan III	17.8	1.8	6.4	3.0
Aşıklı Höyük	11.0	1.1	4.8	1.8

Table 9.2: Population estimates for building units in the clustered neighbourhood settlements of the Central Anatolian Neolithic, using three formulae that relate roofed floor area to the number of inhabitants.

Such considerations serve to demonstrate that cross-cultural formulae relating roofed floor areas to the number of inhabitants should be applied with due reservations, and that the hypothetical number of inhabitants derived from their application should be confronted with contextual evidence on the use of space (Dohm 1990, 204; Friedl and Löffler 1994, 29; Horne 1994, 159; Verhoeven 1999, 13). In many archaeological cases, however, such data are not available and the application of the cross-cultural formulae of roofed floor area per person is the only available method for obtaining an idea of possible group sizes related to buildings. In the case of the Central Anatolian Neolithic settlements it appears from the application of these formulae that

the buildings at Aşıklı Höyük are somewhat small for a household function, those of Canhasan III and Çatalhöyük could potentially have served households of some four to five people. The buildings at Erbaba and layer 2 at Canhasan I, that probably had upper stories could have been in use by households of a similar size, or could have been associated with larger households including multiple adult couples.

The contextual evidence available for the Central Anatolian Neolithic buildings under consideration is much more informative on the actual usages to which buildings in the period were put. At Aşıklı Höyük highly distinctive hearths dressed with flat river pebbles were found, that have been published in some detail. What is remarkable about these hearths is that if we focus on the completely exposed buildings at Aşıklı Höyük only 40 % of the buildings has a hearth (§4.4.2). Many ethnographic cases have shown that ‘living rooms’, that is the main dwelling space of households, are often indexed by the presence of a hearth (Halpern and Halpern 1972, 16-7; Kramer 1982, 104, 123; Carsten 1987, 156; Horne 1994, 156). While contrary examples could undoubtedly be found, the cold winters of Central Anatolia suggest to me that at Aşıklı Höyük the hearth would have been an essential prerequisite of a living room (Özbaşaran 1998). In any case, if the Aşıklı Höyük buildings functioned as household residences one would expect such hearths to have been present either in all buildings, or in none. The fact that hearths were not present in many of the Aşıklı Höyük buildings seems to indicate that these were not autonomous household residences. This argument finds some circumstantial corroboration in the small sizes of the Aşıklı Höyük buildings, which have already been discussed. Taken together it seems to me that family groups were not living in discrete buildings at Aşıklı Höyük, but were dispersed over various rooms in the clustered neighbourhoods. Moreover, it has been argued that much of the production and consumption of subsistence goods probably took place in open midden areas rather than within houses at this site (§4.5.1). Thus, households at Aşıklı Höyük were not clearly bounded entities both in terms of residence and economic pooling.

At Çatalhöyük the spatial configuration of households is a completely different one. It has already been pointed out that buildings could be clearly defined at this site and cluster in a restricted size range (§6.3.2). With few exceptions, all these buildings contain a living room that is characterised by the presence of a range of features arranged in a more or less standardised configuration and orientation of space. These include an oven or a hearth, or both, and a number of floor compartments. Additional features that are present in some living rooms but not all, are benches, storage features, sub-floor burials, wall paintings and moulded features and installations. Some buildings at Çatalhöyük consist of a living room only, and others have additional storage rooms. The presence of hearths and ovens, in some cases storage features, and the relatively dirty floors in the south of these rooms, on the one hand, and clean compartments that cluster in the northeast of the Çatalhöyük rooms, on the other, suggests that these buildings were all in use as domestic spaces (§6.4.3; §6.4.6; §6.4.7). It appears that the storage, production, and consumption of subsistence goods occurred primarily within the context of the house. This argument can be further enhanced by the evidence of the regular accretion of soot on the walls of these rooms, and the regular plastering of their walls (§6.2.5). All these elements suggest that the buildings at Çatalhöyük were household residences used for a variety of domestic purposes and for performing craft activities.

Of special interest at Çatalhöyük are the clean compartments most often located in the northeastern part of the living rooms. I have demonstrated that the sizes of the east-central and northeast compartments are relatively standardised in size and range between 1.3 and 2.3 metres in length (§6.4.5). Given that males average 1.63 metres in length, and females 1.54 metres at Çatalhöyük (Molleson *et al.* 2005, 286), the hypothesis that many of these compartments were in use as beds, as suggested earlier by Mellaart (1967, 60), seems plausible. On the basis of the hypothesis that people at the site would have normally slept on these compartments we can suggest that in most buildings sleeping arrangements would have been available for four to six people. This estimate agrees well with that obtained from the application of cross-cultural formulae relating

roofed floor area to the number of inhabitants that has already been discussed (see also §6.5.2; Matthews 1996, 86).

The arrangement of features in the Çatalhöyük buildings and their orientation is highly regular. The particular position of features and the compartmentalisation of space in living rooms varies from one building to the next and may be altered in a building over the course of its existence, but the general spatial configuration of elements, with the ladders, hearths, and ovens in the south of the rooms, and the clean compartments in the northeast, can be found in most buildings. Mellaart (1963, 56) has suggested that this configuration of internal spaces was related to the local topography of the mound in the South Area, and the ways in which buildings were illuminated, but this hypothesis is no longer tenable given that buildings in other parts of the mound have the same organisation of space. Instead it seems likely that the configuration of elements relates in part to symbolism. Ethnographers have presented a range of cases where the organisation of space in buildings is highly circumscribed and symbolically meaningful, and that such arrangements may be used to transfer and reproduce principles that are of key importance to society (Bourdieu 1973; Richards 1996). Hodder has argued that a similar system was in operation at Çatalhöyük (1987; 1990), and although the specific details of the symbolic system reconstructed for Çatalhöyük in these studies may be challenged, the basic idea that Çatalhöyük houses embodied symbolic principles seems plausible in view of the remarkable standardisation of spatial configurations at Çatalhöyük (§6.5.3). From this it would appear that the Çatalhöyük buildings were not only functional units in which people lived, they were also symbolically charged environments in which the social and symbolic order of society was constituted.

The Çatalhöyük buildings are not *only* household residences, however, and I will pursue this argument along two points. First, there are a number of buildings in which multiple living rooms are located, and in many cases these living rooms are connected by internal doors (§6.3.2). In the six unequivocal examples of twin buildings, a special relation between two household groups seems to have existed, which may not have conceived of themselves as distinct households, although they did use separate living rooms.

Second, some of the features that have been found in the Çatalhöyük living rooms, notably the moulded features, installations, and sub-floor burials, were clustered in a selection of the buildings (§6.4.11; §6.4.12). Given that these features are not located in every building, it seems plausible that they relate to activities that are not so much associated with the individual household, but relate to larger social groupings (§6.5.4). Thus, it seems that some buildings at Çatalhöyük took on a significance beyond the individual household and that they were locales in which a variety of phenomena came together that related to a series of distinct practices involving various social collectivities, and occurring with different frequencies. I will return to this point in the next section.

At the sites of Erbaba and Canhasan I contextual evidence for the use of space is notably absent for the main occupation levels investigated. At both sites this may relate in part to the limited size of the exposures that were excavated, and the fact that not all buildings were excavated to the floor level, let alone the sub-floor level. I have argued, however, that the absence of features signifies something more profound, namely that the living quarters moved upstairs (§7.3.1; §8.2.2). This can be corroborated to some degree by: first, the substantial nature of the walls at these sites; second, the absence of high quality wall and floor plasters at the ground floor level; third, the standardisation and improvement of loam bricks at Canhasan I; fourth, the introduction of buttresses and free standing posts at Canhasan I; fifth, the evidence of partially preserved upper storeys; and, finally, the tumbled down remains of pottery and wall plaster located on top of the second storey floor. The absence of features other than benches and bins in the buildings at Erbaba and Canhasan I suggests that the ground floor storeys were most likely in use for storage, although it cannot be excluded that other activities, for instance related to craft activities, might have been performed in them, especially given that some spaces were of a substantial size. Evidence for domestic activities is completely lacking in these buildings, however.

In these circumstances I think that the ground floor spaces should not be used to calculate how many people were associated with the buildings at the site. What evidence we have from the site of Canhasan I suggests that in most cases the upper storeys would have covered the entire ground floor (§8.4.1), and the size of these upper storeys would have been similar in size, or perhaps slightly larger than the buildings at Çatalhöyük. If this argument is valid it could be argued that the households at Erbaba and Canhasan I were probably similar in size to those of Çatalhöyük, but for some reason or other these households constructed their building in such a manner that they created large spaces, suitable for storage or craft activities, at the ground floor level.

Finally, it is instructive to consider the diachronic development of buildings in the Central Anatolian Neolithic in relation to the reconstruction of households. In this study I have demonstrated that the buildings of this cultural horizon are marked by a remarkable degree of building continuity, in which buildings can be traced through a long series of reconstructions that lasted over several centuries and resulted in vertical displacements of multiple metres at the sites of Aşıklı Höyük and Çatalhöyük (§4.6.1; §6.6.1; Düring 2005a). The buildings at these sites remain extraordinarily similar over the centuries, during which the exterior boundaries and dimensions, the subdivision of spaces into rooms and compartments, and the placement of features often remained identical through time.

Given the versatile nature of loam buildings, to which extra rooms can be added with little effort, as evidenced in a variety of ethnographic and archaeological studies in which the constant adaptation and alteration of loam buildings to accommodate them to changing circumstances has been documented (§3.4.1; Hall, *et al.* 1973; Peters 1982, 226; Horne 1994, 136; Biewers 1997; Van Der Linden 2003, 79-81), the fact that buildings at Aşıklı Höyük and Çatalhöyük do not change much in size or spatial organisation over the centuries is remarkable. In this respect it seems unlikely that buildings were owned directly by households. If that were the case, we would expect dynamic cycles of waxing and waning of individual structures. Instead, it seems more likely that buildings were held collectively by a larger group, most likely that residing in the clustered neighbourhood, and that buildings were distributed amongst the members of that larger collective according to the changing needs and statuses of people belonging to that collective (§2.4.3; Lane 1994). In such a system there is no need to adapt buildings to the changing circumstances of their inhabitants. Instead the specific uses of buildings may have been tied up with their form and inventories and may have reinforced the identity of their users.

In the upper levels V-I at Çatalhöyük, however, the building continuity that had been typical for Aşıklı Höyük and levels X-VI at Çatalhöyük was abandoned. Although pre-existing walls continued to be used as a foundation for constructing walls, as a rule buildings were no longer replicated exactly. This development occurs simultaneously with the appearance of streets and alleys and the break up of the clustered neighbourhoods at Çatalhöyük. I have argued that this shift signifies a change in the way that people related to the buildings that they inhabited (§6.6.1; Düring 2001; Düring and Marciniak 2005). Whereas in the early levels at Çatalhöyük people were probably assigned buildings by a larger social collectivity, in the upper levels they came to own their houses, and these buildings were both more freely adapted to the changing needs of their inhabitants, and more often constructed in a manner divergent from the earlier settlement configuration.

The more autonomous configuration of households in the upper levels at Çatalhöyük might also be visible in a number of other changes in the later levels at Çatalhöyük. Conolly (1999b) has argued that from level V onwards a specialisation occurs in the chipped stone industries at Çatalhöyük. Both Hamilton (1996, 225) and Voigt (2000, 287) have argued that there is a change in figurine typology and gender from level V onwards, and it is after this period that the 'obese' female figurines for which the site has become famous appear and dominate the assemblage. Likewise, the so-called hunting scenes, in which what are probably male figures are shown as teasing large wild animals, appear after level V (§6.4.10). These changes in figurine typology and the appearance of the 'hunting scenes' can tentatively be interpreted as a change in the

conceptualisation of gender. Whereas gender does not seem to have been important ideologically in the early levels at Çatalhöyük: there are no clear differences in the representation or burial treatment of males and females (Hamilton 1996; Hodder 2004; Hamilton 2005), this may have changed in the upper levels at the site, and this could have been related to the increasing independence of households (Düring and Marciniak 2005).

9.3.2 LINEAGE HOUSES IN THE CENTRAL ANATOLIAN NEOLITHIC

In this section I will discuss one mechanism through which the inhabitants of various household may establish and reproduce lasting relationships with each other, and form house groups centred on lineage houses embodying the history and identity of corporate groups. This is of some importance, because I believe that the focus on agents and households that has dominated much recent archaeology on the one hand, and the more recent focus on communities on the other (Canuto and Yaeger eds 2000; Gerritsen 2004), has led to a neglect of intermediate forms of social association and the ways in which these are constituted (Davis 1992, 345; Garfinkel 1998, 225; Kovacik 2002, 53).

The concept of 'lineage house' is used in this analysis instead of the more confusing 'houses'. It denotes a type of social institution first described by Lévi-Strauss and later taken up in a range of case studies (§2.4.4; Lévi-Strauss 1983; 1984; Macdonald ed. 1987; Waterson 1990; Lévi-Strauss 1991; Carsten and Hugh-Jones eds 1995; Joyce and Gillespie eds 2000; Sparkes and Howell 2003; Beck in prep). The essence of the concept is that in some societies people define themselves primarily in relation to lineage houses: corporate bodies holding an estate made up of both material and immaterial goods, which perpetuate themselves over time by the transmission of goods and prerogatives and legitimise their domination of lesser status houses by claims of continuity and precedence. The reason why this concept is of importance in the context of this study is that it allows us to make sense of ritual differentiation of domestic buildings, and provides a model for how such ritual differentiation might develop over time, in which domestic buildings can acquire ritual significance for a house group. The fact that the diachronic developments of buildings are of crucial importance for the articulation of lineage houses, that is, that the houses can only become lineage house gradually over the course of their existence, is an element that we can study archaeologically.

Earlier in this study I have demonstrated that in levels X-VI at Çatalhöyük there is a clear relation between building pedigree (that is the circumstances of origins of a building, whether it was located in an auspicious location and had the appropriate dimensions, and the number of times a buildings was reconstructed) on the one hand, and building status (that is the ritual importance of a buildings as expressed in overall elaborateness of buildings, more specifically in the number of sub-floor burials and the presence of moulded features and installations), on the other. A number of continuous buildings, whose development can be traced from level X up to level V, were transformed through time from relatively inconspicuous domestic buildings to highly elaborate lineage houses containing moulded features and installations and large numbers of sub-floor burials (§6.6.1; Düring 2005a; in prep). Focusing on the sub-floor burials, that constitute a more reliable set of data than mouldings and installations due to factors of preservation and ubiquity, we can note that most buildings initially have limited numbers of burials, often predominantly young juveniles, and over time witness an increase in burial populations, which come to incorporate all age categories (§6.6.1). This is not a mechanical process, in that not all continuous buildings end up as lineage houses, and some decrease in status after a specific point in time. The lineage house concept has the potential to explain how domestic buildings can acquire ritual significance through the activities of people related to these houses, and why status configurations change dynamically over time.

Further, on the basis of the lineage house model we can start to make sense of the ritual differentiation of the buildings in levels X-VI at Çatalhöyük. It has been demonstrated that the majority of sub-floor burials at the site were located in a minority of the buildings, and that the

burial populations in the lineage houses far exceeded the death toll of the households inhabiting them (§6.4.12; Düring 2001; 2003). Why were specific buildings more appropriate than others for placing the dead, to the degree that people resident elsewhere were buried in these buildings rather than the one they had lived in? The answer to this question, I would argue, is that the buildings containing large numbers of burials at Çatalhöyük were lineage houses that embodied the identity and history of a corporate group encompassing a number of households. They were the lineage houses of house groups that can be estimated to have included approximately seven households (§6.7.1). Thus (a selection of) the people from a house group were buried in a building that they thought was particularly appropriate for placing the dead. As Waterson (1990, 221) wrote concerning similar practices in Roti (Indonesia): “one is not necessarily buried in the house one has lived in, but in a clan house, that is, one in which other burials have already taken place and which has therefore accumulated ritual power and is regarded as a sort of temple”.

The lineage houses of levels X – VI at Çatalhöyük can be contrasted with the situation at Aşıklı Höyük on the one hand, and that in the late levels V – I at Çatalhöyük, on the other. At Aşıklı Höyük the diachronic analysis of the buildings in deep sounding 4H/G (§4.6.1), has shown that buildings at that site do not have any evidence for the increase of ritual significance over time. Instead these buildings remain remarkably static over the centuries. I have suggested that buildings may have been deliberately kept the same as a strategy in which the present was legitimised by presenting it as an immutable timeless past. Whether or not this is the case, it seems clear that the buildings at Aşıklı Höyük were less invested with ritual and symbolism than those of Çatalhöyük: first, there are some sub-floor burials at Aşıklı Höyük but these are much rarer than at Çatalhöyük, and the largest cluster of burials in a room seems to have been four individuals (§4.4.3); second, no wall paintings, mouldings or installations have been reported from Aşıklı Höyük, despite the fact that some 400 rooms were excavated (§4.3.1). One element that may be of importance in relation to this point is the fact that at Aşıklı Höyük communal buildings ‘HV’ and ‘MI’ were found, something lacking so far at Çatalhöyük. Tentatively it could be argued that these communal buildings may have served some of the same functions as the lineage houses at Çatalhöyük, albeit on a larger scale. I will return to these communal buildings later (§9.3.4).

Finally, it is necessary to consider the status differentiation amongst buildings in the upper levels V – I at Çatalhöyük. With the possible exception of a number of horned pillars that may date to level V, moulded features and installations have not been found in the upper levels at the site (§6.4.11). The wall paintings do continue in the upper levels, but the motifs that are painted shift, for instance all ‘hunting scenes’ date to the later levels, while all of the motifs painted earlier on disappear (§6.4.10). I have argued earlier that wall paintings probably occurred in all buildings at Çatalhöyük, and that their discovery is strongly influenced by matters of preservation and chance (§6.4.10). It follows that their distribution is not informative on the status differentiation of buildings at this site. By contrast, the burials form a reliable dataset little affected by matters of preservation or contingencies occurring during the excavations.

What is of note is that in level V and upwards burials continue to be clustered in a limited group of buildings at Çatalhöyük, as they were in the earlier levels. For instance in level V five out of the fifty-five rooms had sub-floor burials, and only two had substantial amounts of burials.²⁷⁷ Likewise in level IV only six out of thirty-four rooms had burials and only two of these had more than two burials.²⁷⁸ Overall it appears that fewer people were buried intramurally on site in the upper levels than had previously been the case, although the data could be affected by the more limited exposures excavated in these levels. What is of interest here, however, is that sub-floor burials continue to be clustered primarily in a few houses, and at least in some cases, such as F.V.1 with 33 burials it seems likely that people who had been living elsewhere were buried there as well.

²⁷⁷ Rooms with burials in level V: V.4 (1 individual), V.17 (1), V.75 (2), V.10w (9), and F.V.1 (33).

²⁷⁸ Rooms with burials in level IV: IV.1 (1 individual), IV.4 (1), IV.9 (1), IV.10 (2), IV.11 (10), and IV.12 (17).

Thus, status differentiation amongst the Çatalhöyük buildings, in which some buildings were more appropriate for burials than others, exists in the upper levels at the site. What is of note, however, is that the building with large burial populations in levels V and IV were not those that had a good pedigree, as expressed in a long sequence of reconstruction and predecessor structures that also had been used for burials, but were often buildings of insignificant pedigree. Concurrently, all of the buildings that had contained many sub-floor burials previously in level VI, were devoid of these features in level V (§6.6.1; Düring 2001; in prep). Apparently building pedigree and building status were no longer linked in the upper levels at Çatalhöyük, and consequently I would not classify those structures with many sub-floor burials as lineage houses. I have argued that the appropriateness of a building for placing the dead may no longer have been an intrinsic quality of that building, but may simply have been linked to the fact that an important member of the lineage resided in them. If this hypothesis is correct, the focus would have shifted from buildings that constituted a corporate group to lineage leaders with an established position of authority.

9.3.3 CLUSTERED NEIGHBOURHOODS IN THE CENTRAL ANATOLIAN NEOLITHIC

Clustered neighbourhoods are defined as groups of mainly domestic buildings that were constructed in such a way as to deter people not resident in that neighbourhood from entering it, making the neighbourhood a communal, rather than a public arena. In the context of the Central Anatolian Neolithic these clustered neighbourhoods are achieved by the complete abolishment of streets and exterior doors, in which blocks of houses were accessed via roof entrances and in which most buildings could only be reached via adjacent roofs. In other places clustered neighbourhoods may take on different forms, however, and as an example I have discussed the organisation of space in traditional oriental towns and villages in which the narrow and winding streets within neighbourhoods were not accessible to non-residents, except when invited, and in some case were closed with a bolted door at night (§2.4.6).

In the traditional Oriental settlements the group of people living within such clustered neighbourhoods generally define themselves as a corporate group (Antoun 1972; Horne 1994; Biewers 1997; Wirth 2000). This corporate identity should not be construed as a static feature. In many case the tribal affiliations with which this corporate identity is substantiated are relatively recent fabrications, which can be altered if circumstances require (Antoun 1972, 87; Eickelman 1974, 290; Wirth 2000, 340). The fact that these corporate identities are recreated and adjusted to changing circumstances bespeaks the central importance in these societies of living in bounded neighbourhoods.

In some cases the inhabitants of these neighbourhoods may have a strongly defined sense of a common identity, but in other cases spatial association may be less important to social life. A good example of such mechanisms comes from the Moroccan town of Boujad described by Eickelman (1974). In this town the neighbourhoods, locally called *darb*, were not clearly segregated from each other, inhabitants identified between 30 to 43 *darbs* in the town, and boundaries between them were often diffuse (Eickelman 1998, 104). To describe the common identity and the degree of social interaction in these *darbs* the residents of the town used the phrase *qrâba*, literally meaning 'closeness'. Some neighbourhoods were 'closer' than others, and one determining factors in this is that the number of residents in the *darb* should fall in the range of 200 to 600 people (Eickelman 1974, 287). A second factor that was of importance in this community were claim of genealogical precedence (*ibid.* 291-3). Third, corporate interests and activities were of great importance to the creation of neighbourhood identities (*ibid.*, 287). Finally, I would suggest that the degree of spatial segregation of neighbourhoods, which is more pronounced in villages and towns in the Levant than in Morocco, could be an important element determining the degree to which neighbourhood groups perceived of themselves as corporate groups (Bianca 1991, 207).

Within these neighbourhoods people were often deeply involved with each other and closely monitor the behaviour of other residents, and outsiders will not be allowed to enter the

neighbourhood unless invited. For this system to work it is essential that neighbourhoods do not become too large, in which case such social control can no longer function (Antoun 1972, 111; Costa and Noble 1986; Wirth 2000, 377-81). Little has been reported on the size of these neighbourhoods, but Lutfiyya (1966, 27-35) reports that a village of 853 people had three distinct neighbourhoods, which would put their average at about 284 residents. In Oriental cities neighbourhoods have been reported to have between about 500 and 2000 inhabitants (Al-Messiri Nadim 1979, 331; Gangler 1993, 58, 68; Wirth 2000, 340), but such large neighbourhoods are typically divided up into segregated neighbourhoods of a smaller scale, which will not contain more than 40 nuclear households, or about 200 people (Al-Messiri Nadim 1979, 329-30; Hütteroth 1982, 252; Vryonis 1991, 30-1).

These figures mesh well with figures arrived at by other scholars who have argued that 'face-to-face-communities' can only exist below a certain group size. The idea that humans can engage directly only with a finite number of other people has been put forward on the basis of observations in disparate disciplines such as evolutionary psychology, geography, anthropology, and sociology. The thresholds arrived at in these studies are remarkably consistent, averaging at about 150-250 people for close personal relations, and 400-600 people for more casual relations. Dunbar has argued that the capacity of the human brain, and in particular the size of the human neocortex, allows us to maintain close personal relations with approximately 150 to 200 other people (Dunbar 1992; 1996, 69). Forge (1972) argues that the normal villages in Melanesia are in the range of 150-350 people, and that larger groups of co-resident people would require subdivision by a classification of relationships and / or some form of hierarchy. Birdsell (1973, 339) calculated that the Aboriginal band size in Australia was normally about 500. On a cross-cultural basis Kosse (1990, 294-6) and Bintliff (1999, 527-32) arrive at a number of 150 people for close personal relations and 500 for more distant personal relations. Similar results are obtained in studies of contemporary organizations, where the units tend to be no larger than 150 people (Blau and Schoenherr 1971, 63). These figures should be considered with due caution, given that they represent a selective amalgamation of disparate phenomena, but collectively they do seem to suggest that face-to-face communities would normally have been no larger than about 250 people.

The best evidence for the clustered neighbourhood communities in the Central Anatolian Neolithic comes from the sites of Aşıklı Höyük and Çatalhöyük. At Aşıklı Höyük three neighbourhoods could be distinguished that were separated by streets or alleys, and the largest of these can be estimated to have contained about 90 rooms, of which approximately 27 to 36 were living rooms, and an equal number of households can be postulated (§4.7.1). Assuming an average household size of 4 to 5 persons that neighbourhood can be estimated to have had between 108 and 180 residents.

At Canhasan III the exposure was of a much smaller size, and the extent of the neighbourhoods could not be defined other than that they were larger than 10 buildings (that were probably in use by 10 households (§5.6.1)). Somewhat better evidence is available for Çatalhöyük. There the common estimate for neighbourhood sizes is about 20 to 30 houses (Düring 2001, 16; Matthews in prep). The level VIB exposures obtained in the 1960s excavations in the South Area includes a minimum of 93 rooms, that can be assigned to 36 building units, and that include 30 living rooms (§6.7.1). On the basis of the number of living rooms and an estimated household size of five people, this incompletely exposed neighbourhood would have been inhabited by at least 150 people. Although the data are problematic, the evidence from the scrape area on the northern summit of Çatalhöyük points to the fact that the neighbourhoods at Çatalhöyük were clearly bounded by streets and alleys, something not apparent in the more restricted exposure in the South Area. The clearest neighbourhood in the northern scrape area seems similar in scale to that of level VIB in the South Area.

The roofscapes at Çatalhöyük and the other clustered neighbourhood settlements were probably accessible to residents and invitees only. The restricted size of these neighbourhoods, which seem to have remained below the 250 boundary that seems to be the maximum for face-to-

face communities, would have ensured that most people would have known each other intimately. Furthermore, it has already been suggested that the neighbourhood residents formed a social collectivity in a manner similar to those of the Oriental neighbourhoods. At Çatalhöyük, this corporate group would have been constituted by an estimated five to six house groups (§6.7.1), each consisting of approximately seven households centred on a lineage house.

The remarkable building continuity of the Central Anatolian Neolithic settlements, suggests that houses were distributed amongst neighbourhood members rather than owned by individual households. The distribution of rooms and building to households was most likely performed by the neighbourhood community at Aşıklı Höyük, but at Çatalhöyük we cannot exclude that house groups may have played a role in this process.

Interaction in these neighbourhoods would have been particularly intense. One aspect of this is related to the fact that transport and communication were channelled via the roofscape: to get to and from their houses people were obliged to move across the roofscape. In the hot part of the year the roofs would have been used for a range of activities, including domestic chores, relaxing, craft activities and socialising. The best available evidence for the reconstruction of the roofscape comes from Çatalhöyük, where a fire installation was found on top of the roof that had a 'dirty' area used for cooking and craft activities, and a 'clean area' probably used for relaxation. Thus, the roofs at Çatalhöyük would have been vibrant areas, where lots of people would have been present involved in various activities. The neighbourhood roofscape would have been a primary locale in which the neighbourhood community was constituted through shared activities and experiences, personal relations and face-to-face interaction on a daily basis, in short in which people were engaged in practices of involvement (Amit and Rapport 2002). These neighbourhoods were too small in population to be endogamous, and would have exchanged marriage partners with other groups, and this would have been one important way in which neighbourhood communities maintained larger social networks (§9.3.5).

In the upper levels V-I at Çatalhöyük the clustered neighbourhoods that had been typical for the settlement at that site earlier disappeared. Instead buildings were grouped around large open spaces that could be accessed via narrow alleys. It is likely that these internal open spaces were not accessible to the public at large, and thus neighbourhoods might have continued to be spaces not accessible to non-residents. In some cases, such as in level V, open areas seem to have been deliberately walled off in order to enhance the control over who could access these areas. The spatial configuration in the neighbourhoods was radically different in the upper levels, however. Moving through the open areas in the upper levels would probably have been both less rule bound and less controlled than the movement across roofs in the early levels at Çatalhöyük, because these were spaces less closely associated with individual buildings than the roofs and movement through these spaces would have been less easy to monitor (§6.9.2). In addition, the roofs at Çatalhöyük in levels X-VI were used for a variety of domestic and craft activities, but similar evidence is lacking for the internal open courts in levels V-I, which implies that social interaction in these places was less frequent and less structured than was previously the case on the roofs (§6.9.4). Thus the manner in which neighbourhood residents would have interacted with each other was altered radically in the upper levels at the site, in that social relations and social control would have been much less pronounced. Finally, if the hypothesis that people in the upper levels at Çatalhöyük started to own the houses that they inhabited, rather than being assigned their houses by the larger neighbourhood collective, is accepted, this would have enhanced a clearer distinction between private and communal space than that which previously existed.

9.3.4 COMMUNAL BUILDINGS IN THE CENTRAL ANATOLIAN NEOLITHIC

Monumental buildings and building complexes that stand out from domestic buildings have been documented at many early Neolithic sites in the Near East, and have generally been interpreted as being related to the need for creating institutions that integrate large communities (Adler and Wilshuysen 1990; Byrd 1994; Garfinkel 1998; Özdoğan and Özdoğan 1998; Hole 2000; Rosenberg

and Redding 2000; Verhoeven 2002a). In this reconstruction the larger communities become, and thus the greater the need for integrative institutions, the greater the chance of finding a communal building of some sort. I have already discussed the evidence of Göbekli Tepe (§2.4.5), a site at which a large number of monumental structures were built apparently by non-sedentary hunter-gatherer communities rather than by a large settled population. The idea that such structures served to relieve tensions in burgeoning communities seems difficult to substantiate at this site, and it is more likely that the Göbekli Tepe buildings were important in the process of initial community formation. The structures at Göbekli Tepe must have involved a large number of people over a considerable period of time, and this involvement must have been a potent factor in the creation of a sense of community and social discipline amongst hunter-gatherer groups (*cf.* Renfrew 2001, 109).

In the Fertile Crescent communal buildings are at their most impressive in the PPNA and Early PPNB and decrease in size and elaborateness in the Middle and Late PPNB, disappearing completely in the Ceramic Neolithic (Verhoeven 2002b). This decrease in the size and elaborateness of communal buildings occurred at a time when the extent and population densities of Early Neolithic settlements reached their peak, and many local communities would have had thousands of residents (Rollefson 1987; Kuijt 1999, Moore *et al.* 2000; Gebel 2002; Rosenberg 2003). Thus, the interpretation that communal buildings served to counter the stresses occurring in large settled populations is questioned.

In the Central Anatolian Neolithic communal buildings have so far only been found at the Aceramic Neolithic sites of Aşıklı Höyük and Musular, and are completely lacking from later sites. It could be argued that this is simply an artefact of archaeological research and chance factors, and that more such buildings will be found in future seasons. Further, such buildings could have been located at some distance from the settlements, in which case they would be difficult to find. While the potential future find of such buildings cannot be excluded, I argue that the configuration of domestic versus communal elements at the sites of Aşıklı Höyük and Çatalhöyük is completely different, and for this reason I do not consider it likely that communal buildings will be found at Ceramic Neolithic sites in Central Anatolia in the future.

What are the practices in which the communal buildings at Aşıklı Höyük and Musular played a role? Musular may be a ritual special purposes satellite of Aşıklı Höyük, as has been argued by the excavators (Özbaşaran 1999, 149-50; 2000, 135), but the buildings of that site are not further considered here because of problems surrounding how the site of Musular should be dated, and because the plan obtained for Musular is difficult to understand (§1.3.3). The communal buildings at Aşıklı Höyük were clearly differentiated from the loam buildings in the clustered neighbourhoods with respect to the building technologies employed, the building materials used and the types of features present.

On the basis of this differentiation it is probable that the ways in which these buildings were used also differed substantially from that of the domestic buildings. The two building complexes documented at Aşıklı Höyük so far were not incorporated in or attached to a specific neighbourhood, but were located in a discrete location, and this suggests that these complexes may have served several neighbourhoods, or even the community at large, rather than any specific neighbourhood in particular. The most prominent elements in the communal buildings at Aşıklı Höyük are large internal courts and it is likely that these open areas were used for social gatherings of some kind. On the basis of the size of these courts we can estimate that up to several hundred people could have gathered in the largest court, HV, whereas smaller groups could have gathered in courts T and MI (§4.9.1). Given that the (maximum) population of Aşıklı Höyük can be estimated at between 1080 and 2700 people (§4.8.1), it seems that only a selection of the residents could have attended meetings in these courts. It is possible that different groups of people gathered there at different times, or that only particular people used these places. In the absence of contextual evidence it is not possible to reconstruct the nature and content of the gatherings that took place in these courts. The following issues seem to be clear, however. First, considerable efforts were put

into the construction of the communal buildings at Aşıklı Höyük, and thus the activities taking place in them must have been of some importance to the people at the site. Second, the courts are surrounded on all sides by walls, and this can be understood as an effort to restrict or control the participation in the activities taking place in these locales. Third, it is likely on the basis of the detached location of these buildings that people from different neighbourhoods came together in these places, and this may have been an important means of creating bonds between different neighbourhoods.

If this hypothesis is correct, one would expect similar communal buildings to have been found at other sites of the Central Anatolian Neolithic, especially at the site of Çatalhöyük, that had a population even larger than that of Aşıklı Höyük (§6.8.1). The absence of communal buildings at this site can be contrasted, however, with the presence of lineage houses in the clustered neighbourhoods at Çatalhöyük, something completely absent at Aşıklı Höyük. I argue that at Çatalhöyük the lineage houses took on many of the properties that had been associated with communal buildings at Aşıklı Höyük, albeit in a different form and setting. It has been argued that in communal buildings substantial meetings took place and the same was probably true for the sub-floor burial rites occurring in lineage houses. There is substantial evidence for feasting deposits relating to the final closure of buildings at Çatalhöyük, and these must have involved substantial groups of people (Russell and Martin 2005, 54-5). The differences between communal buildings and lineage houses are equally apparent: first, communal buildings are distinct from domestic structures but lineage houses are not; second, the communal buildings at Aşıklı Höyük could have accommodated much larger gatherings than the lineage houses at Çatalhöyük; and, third, the lineage houses are embedded in the clustered neighbourhoods, whereas the communal buildings were located in a separate location. This last difference suggests that whereas at Aşıklı Höyük people from different neighbourhoods might have come together in the communal buildings, the same was not true for lineage houses at Çatalhöyük, which were probably used only by neighbourhood residents.

All this leads to the question in what manner the larger community was held together at Çatalhöyük. For Aşıklı Höyük it can be argued that the communal buildings were important in this regard. Similar structures probably did not exist at Çatalhöyük in light of the differential articulation of ritual and domestic elements.

Here I would like to make a brief excursus to a similar problem. In relation to pre-modern Oriental cities such as Cairo, Aleppo and Damascus it has been argued that the true local community was the neighbourhood rather than the city as a whole:

“Aufgrund dieser Quartierstruktur erscheinen die Wohngebiete der orientalische Stadt als eine Summe von relativ selbständige Einheiten – fast wie eine Menge von Elementen, die ohne wirklichen Bindung nebeneinanderstehen. Nicht ganz zu Unrecht hat man deshalb die Stadtviertel als die eigentlichen Ganzheiten der islamzeitlichen Stadt bezeichnet.” (Wirth 2000, 340).

Further, it has often been observed that in oriental towns and cities there is a lack of public facilities and instead each neighbourhood tends to have its own facilities (Lutfiyya 1966, 21; Costa and Noble 1986, 165; Biewers 1997, 92; Wirth 2000, 325-7).²⁷⁹ According to this model, large agglomerations need not necessarily have any public facilities that served the community at large.

However, it has been argued that annalists of Oriental towns and cities have mistaken the absence of public facilities for the absence of interaction between neighbourhoods (Eickelman 1998, 101), and that furthermore oriental towns have clear public facilities in the forms of the central mosque and the bazaar (*ibid.*, 102-4). Instead it has been argued that the residents of oriental settlements perceived their environment as multiscalar ranging from the household

²⁷⁹ For similar reconstructions in Bronze Age archaeology see Schloen (2001) and Chesson (2003).

residence through a series of increasingly encompassive communal zones, with the central bazaar and mosque as the most public of spaces (Bianca 1991, 146-155; Akbar 1993).²⁸⁰

With these considerations in mind it appears that local communities that lack public facilities need not be interpreted as the sum of a number of relatively autonomous neighbourhoods. At a site like Çatalhöyük we would expect some mechanisms that held the local community as a whole together. These could have taken many forms, not all of which are associated with public facilities such as communal buildings. It is also possible that such structures existed at Çatalhöyük, but have simply not been found so far. Thus nothing much can be concluded from the absence of communal buildings at Çatalhöyük. It is certain that members of different neighbourhoods at Çatalhöyük would have interacted in various manners. One obvious way in which this would have occurred is through marriages between members of different neighbourhoods (§9.3.5), and presumably there would have been many other ties as well.

9.3.5 LOCAL COMMUNITIES AND BEYOND IN THE CENTRAL ANATOLIAN NEOLITHIC

The local community consists of the complete resident population of a settlement. The size of this local community may vary considerably and this variation seriously affects the ways in which such communities are constituted. If a local community is very small in size it is a very concrete matter to people grounded in shared activities, but larger local communities may be more ideational in character.

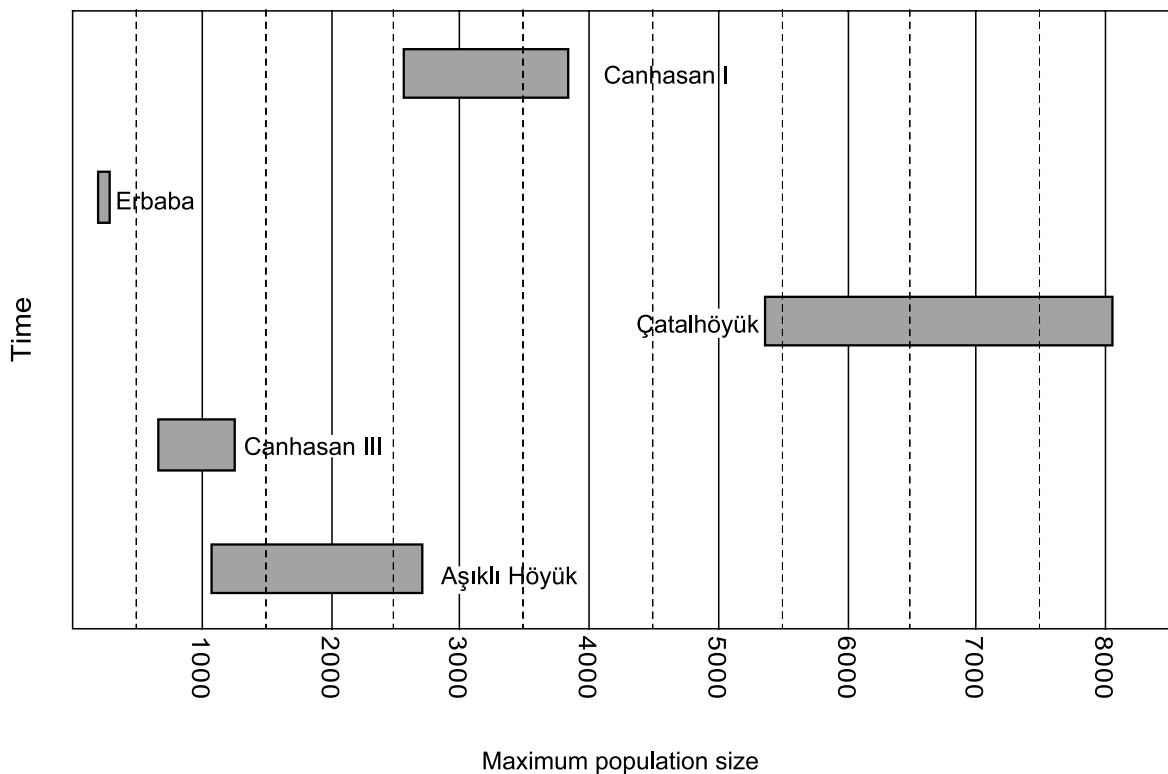


Figure 9.2: Estimated maximum populations of the clustered neighbourhood settlements of the Central Anatolian Neolithic per site.

²⁸⁰ It has been argued that this spatial configuration developed in the centuries leading up to the Ottoman Empire was related to the increasing exclusion of residents in corporate decision making by foreign rulers who were powerless to stop the compartmentalisation to which the residents resorted (Alsayyad 1992).

The local communities of the Central Anatolian Neolithic varied considerably in size (see fig. 9.2). A first element that can be noted on the basis of the population estimates proposed in this study (§4.8.1; §5.7.1; §6.8.1; §7.6.1; §8.6.1) is that Erbaba has a much smaller estimated population than all the other sites in the sample. With an estimated maximum population ranging between 190 and 285 people this is the only settlement in which the local community would not have exceeded a face-to-face community in which everybody knew each other first hand. Settlements of this size, with populations not exceeding 300 people are typical for Neolithic settlements in Cyprus, Greece, and the Balkans (Halstead 1999, 89; Peltenburg *et al.* 2001, 53, Perlès, 2001, 178-80). Likewise most sites in the Neolithic Lake District and Western Anatolia on the one hand, and the Fertile Crescent, on the other, would also have fallen into this size range (Roodenberg 1999, 197; Akkermans and Schwartz 2004, 58-60). Such a local community could have functioned on the basis of personal contacts and social control mechanisms (Dunbar 1992; 1996, 69; Bintliff 1999, 526-9).

What is remarkable about most of the Central Anatolian Neolithic clustered neighbourhood settlements in this study is that the local communities are much larger than face-to-face communities, with the estimated populations ranging between 660 and 8044 people. Given the substantial size of these local communities it has often been argued that sites such as Aşıklı Höyük and Çatalhöyük should be regarded as towns or even cities (Jacobs 1969; Mellaart 1965b; Mellaart 1967; Ülkecul 1999; Rosenberg 2003). However, such terminologies are bound up with a settlement system in which settlements are differentiated in size and function, and in which settlements can only exist within the larger settlement system (Childe 1950; Roberts *et al.* 1996, 18-9; Smith 2003, 8-11). This situation does not seem relevant to many of the sites discussed in this study, and it is mainly for this reason that I have preferred the generic term 'settlement'.

At the site of Çatalhöyük it seems evident on the basis of intensive surveys that this large site was situated in a landscape that was more or less empty with regard to contemporary settlements. Given the fact that a substantial number of small sites from the preceding period were found in this survey, this absence cannot be related to post-depositional factors, but seems to be genuine (§6.1.3; Baird 1996; 2000; 2002). At Aşıklı Höyük the situation is more ambiguous, but it seems that the site was also singular during the main period of its occupation and that towards the end of the sequence, or directly following the end of the Aşıklı Höyük sequence, four small sites were founded within a 1 kilometre radius of the site (Gülçur 1995; Balkan-Atlı 1998; Özbaşaran 2000). Thus it would appear that at this site too, the local community was singular. This does not imply that people at Aşıklı Höyük and Çatalhöyük were not in contact with other people, the evidence of the distribution of obsidian and the find of date palm leaves and Red Sea shells at Çatalhöyük clearly shows this is not the case (§1.3.3; Balkan-Atlı and Binder 2001; Reese 2005; Rosen 2005, 207), merely that these sites were not part of a settlement system.

The settlements of Erbaba and Canhasan I do seem to have operated within a wider network of contemporary settlements, however. Erbaba is one of a larger group of relatively small Ceramic Neolithic sites located on the shores of Lake Beyşehir and Suğla, that are often only a few kilometres removed from one another (Mellaart 1961; Solecki 1965; Thissen 2002b, 18). None of the sites seem to have been considerably larger than the others, and thus it is not likely that there was a functional differentiation or hierarchical relation between the settlements.

This situation can be contrasted with that developing in the Early Chalcolithic period. Baird (2002, 150) has argued that in the Çatalhöyük region a differentiation in settlements sizes occurred during this period, which probably indicates some form of functional differentiation of settlements, and marks the emergence of central places. Much less is known about the settlements in the surroundings of Canhasan I, but it is plausible that this site too was a central place in a network of smaller settlements (§8.1.1), although this hypothesis needs to be tested in a survey.

Summarising the evidence on the settlement systems of the Central Anatolian Neolithic, it is only in the Early Chalcolithic that we can postulate functionally differentiated settlement systems

with central places and smaller satellite settlements. In the earlier sites we have either large local communities of over 600 people in size that are isolated in the landscape, at Aşıklı Höyük, Çatalhöyük, and possibly at Canhasan III, or, small sites that are part of a network of otherwise seemingly undifferentiated small settlements, as in the Late Ceramic Neolithic in the Lake Beyşehir and Lake Sığla regions. This observation has implications beyond the terminological issues surrounding concepts such as ‘cities’, ‘towns’, and ‘villages’. In particular, I would like to draw attention to marriage patterns and the issue of surplus.

Both Birdsell (1973) and Wobst (1974; 1976) have argued that a group of 500 people constitutes the minimum boundary necessary for human biological reproduction. In other words, below this threshold it will not be possible for everybody at the reproductive age to find a suitable partner. Bintliff (1999, 532-4) reaches similar conclusions on the basis of a village ethnography in northern Spain, and argues that settlements in the range of 500 – 1000 inhabitants are often predominantly endogamous and in this way enhance the control a community can exert over the surrounding resources, by keeping property in the village (*cf.* Antoun 1972, 90, 120). On the basis of a cross-cultural comparison, Adams and Kasakoff (1976, 155-8) argue that completely endogamous groups do not exist in the ethnographic record, but that local communities in the range of 850 to 10,000 people will typically be about 80 % endogamous (*cf.* Bernbeck 1994, 39). On the basis of such estimates Baird (in prep) has posited that the advantage of Çatalhöyük becoming as large as it did was that the settlement could have become largely endogamous, arguing that this might have been a strategy to enhance control over resources.

On the basis of their size range it is indeed likely that local communities at Aşıklı Höyük, Canhasan III and at Çatalhöyük could have been largely endogamous during long periods of their existence. However, it is difficult to see this as a strategy to maintain control over resources in landscapes that seem to have been devoid of other settlements. On the other hand, a preference for marriages within the local community could be one factor that might help to explain how these settlements could have become as large as they did, and why people might have preferred to live in one large settlement rather than a number of smaller dispersed communities. This situation can be contrasted to that at Erbaba, which probably participated in marriage networks with the other small sites in its vicinity, and that at Canhasan I, which could have been a central settlement with smaller satellite settlements, in which case one would expect some intermarriages to occur between settlements. Lehmann (2004, 154-5) has argued that when village communities are smaller than 500, most marriage alliances are made with neighbouring local communities within the range of a day’s walk.

Baird (2002; in prep) has argued that the initial formation of Çatalhöyük was a clustering of a group of previously dispersed small local communities. It is tempting to trace the clustered neighbourhoods at Çatalhöyük back to this event, with each neighbourhood representing a formerly distinct settlement, of the size range represented by Erbaba. Such considerations must remain speculative, however, and it should also be remembered that the spatial format of Çatalhöyük is part of a pre-existing tradition documented at the sites of Aşıklı Höyük and Canhasan III. At Aşıklı Höyük the opposite scenario could have marked the end of the occupation of that site, with the dispersal of the local community over a number of smaller sites in the vicinity of the older settlement (§1.3.3; Gülçür 1995; Balkan-Atlı 1998, 81; Özbaşaran 2000, 129).

The absence of a functional differentiation of settlements into central sites and those producing agricultural surplus has considerable implications for the nature of the Central Anatolian Neolithic settlements. First, settlements can reach significant sizes without any evidence for functional specialisation. Second, settlements in which agricultural and craft surpluses are not channelled towards non-agricultural elites or craftsmen can reach levels of opulence not normally associated with farming communities. In an ethnography of farming communities in the Amuq region of Turkey, Aswad (1971) noted a distinction between one group of villages in which people lived in impoverished conditions because the agricultural surplus was channelled towards large land-owners living in the city, to finance their luxurious existence, while in another group of

villages that was organised on a more egalitarian basis and where everybody was living in the village, people were doing much better for themselves. On the basis of these differences several authors have argued that agricultural local communities not obliged to surrender their surpluses will be more affluent and more heterogeneous (for instance also engaging in craft production) than those more strongly integrated into settlement hierarchies (Magness-Gardiner 1994, 45; Schwartz and Falconer 1994, 4; Bintliff 1999, 532-7; Philip 2001; Chesson 2003, 79-81), and some authors have used the phrase 'corporate communities' to describe these self contained local communities that are mostly endogamous units of about 1000 – 2000 people in size (Bintliff 1999, 537; Philip 2001; Chesson 2003). According to Philip (2001, 167-8) these corporate communities held land in a variety of communal forms, often engaged in large-scale projects, such as the construction of large buildings while lacking evidence for institutionalised elites, and were managed through consensus rather than by decision makers.

The 'corporate community' model is reminiscent of the nostalgic 'community' concept discussed earlier in this chapter (§9.1.1), and thus we should be wary of the danger of idealising past communities.²⁸¹ Nonetheless, many of the characteristics of these corporate communities do seem to apply to the local communities of the Central Anatolian Neolithic. At sites such as Aşıklı Höyük, Canhasan III, and Çatalhöyük we are dealing with populations of several thousand people, and given the fact that these sites do not seem to be part of a (functionally differentiated) settlement system, it seems plausible that most marriages would have been endogamous and that no agricultural or craft surpluses would have been channelled elsewhere. Further, it is apparent that people at these sites were engaging in a diverse set of economic activities including hunting, gathering, herding, and craft production, and that they were not simply agricultural producers. Finally, evidence for institutionalised elites, in the form of conspicuous display or consumption or differential burial treatment, is lacking at these sites, but we do have some examples of collective building projects, most notably in the form of the communal building complexes at Aşıklı Höyük. While it could be argued that the absence of evidence of hierarchy at these sites could have been the result of an ideology masking profound differences in power and status between people (Kuijt 1999, 97-8; 2000; 2001), the model of consensual decision-making may be appropriate to the evidence.

One model that could help us understand how this might have worked has been provided by Johnson (1982; 1989). According to Johnson (1982, 392-3), as long as the organisational units of a group fall below six it is still possible to engage in decision making without recourse to hierarchical differentiation. These organisational units may take the form of single individuals, nuclear or extended families, or larger social collectivities. We can consider the clustered neighbourhoods in the settlements of the Central Anatolian Neolithic as such organisational units engaging in decision making processes. Assuming that the average resident population of the clustered neighbourhoods in these settlements would have been in the range of 150 to 200 people, the number of neighbourhoods in these sites could have ranged between 1 and 53 (§4.8.1; §5.7.1; §6.8.1; §7.6.1; §8.6.1). If we plot the estimated number of clustered neighbourhoods in the Central Anatolian Neolithic settlements during their peak occupation (see fig. 9.3) it is clear that apart from Er Baba and possibly Canhasan III, all these sites have too many neighbourhoods for a 'sequential hierarchy' system, in which decisions are taken on the basis of consensus by no more than six organisational units.

If Johnson's model is correct we can only conclude that in the Central Anatolian Neolithic decision making could not have been consensus based if it were channelled through representatives of the clustered neighbourhoods: there are simply too many of them. Several options present

²⁸¹ Saitta and Keene (1990) have used the 'kibbutz' as a model for discussing communal forms of society, and these are in many ways similar to the 'corporate communities': they typically have about 2000 members, and are relatively non-hierarchical and egalitarian, and typically invest profits in communal facilities rather than private amenities. The kibbutz can be considered a modern example of a 'corporate community'.

themselves as alternative possibilities for corporate decision making. One would be that the clustered neighbourhoods were indeed central to the decision making process but that they were hierarchically organised. There is no evidence for such a configuration, however. For instance, one would expect communal buildings, such as the ones found at Aşıklı Höyük, to be associated with specific neighbourhoods if this were the case.

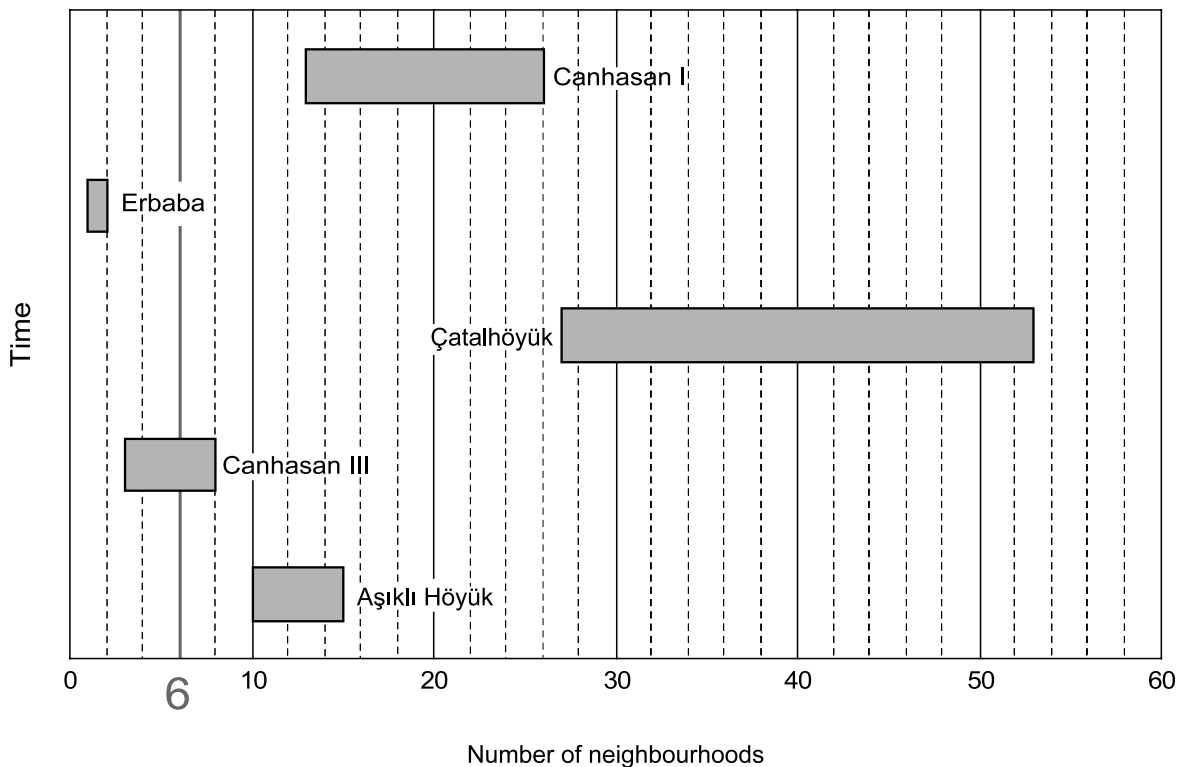


Figure 9.3: Estimated maximum number of clustered neighbourhoods in the Central Anatolian Neolithic settlements per site with Johnson's (1982) consensus threshold in grey.

A second alternative political organisation of the local community is that sodalities existed that crosscut neighbourhood membership groups (Service 1962; Flannery 1972a). It is in relation to such crosscutting sodalities that the communal buildings at Aşıklı Höyük could have played an important role. At Çatalhöyük, it has already been pointed out that such communal buildings are absent, and it has been argued that group rituals were restricted to the clustered neighbourhoods at Çatalhöyük and that the individual neighbourhoods would have constituted largely autonomous communities. Of course, people were linked with the larger settlement in various manners, but these do not seem to have been emphasised in the form of communal facilities. In relation to this point it is of interest that the Çatalhöyük community was much larger than that of Aşıklı Höyük, and this may have made the construction of a common identity more difficult, as this would have been increasingly based on ideational notions rather than on personal contacts. In this situation sodalities crosscutting neighbourhood groups might have been less effective.

This brings us to the third point in relation to the political organisation of the Central Anatolian Neolithic local communities. We need to question to what degree these local communities were well-integrated corporate groups that were making joint decisions and conceived of themselves as a coherent entity. To my mind there is a spectrum from relatively small well-integrated local communities that would have been reinforced by personal contacts, such as at

Erbaba, to large local communities such as Çatalhöyük, in which the local community might have been more of an ideational than a practical concept, and in which corporate political action might not have existed. Large local communities, such as that of Çatalhöyük, need not have had consensual decision making procedures of the type that have been reconstructed for corporate communities, and neither do they need to have had a hierarchical political structure. They also could not have been corporate bodies, but simply an agglomeration of smaller social collectives. Nonetheless, there must have been some factors that bound people in a place like Çatalhöyük to their settlement and to the local community of which they were part. This could have been some corporate identity tied to a settlement of the type that we can witness in the modern world today. While such ideational factors are difficult to deal with on the basis of archaeological remains, they may have been of key importance in the creation and reproduction of local communities in the Central Anatolian Neolithic. Certainly, local identities could provide part of the answer to why some of the sites of the Central Anatolian Neolithic reached the size they did and were as long lived as they were.

9.4.1 CONSTRUCTING COMMUNITIES IN THE CENTRAL ANATOLIAN NEOLITHIC

In the discussions in this chapter it has already become apparent that the local communities of the Central Anatolian Neolithic were not a unified phenomenon, but took on a great diversity of social configurations. Hidden beneath an outward similarity in the settlement form of the clustered neighbourhoods, there are considerable differences in the articulation and configurations of social collectivities, as well as some shared characteristics.

The archaeological perception of the formation of communities has been dominated by the community – society dichotomy on the one hand, and the idea that Neolithic communities were small scale and centred on more or less autonomous and homologous households, on the other. Both of these ways of looking at the data have been argued to be problematic, primarily because they have directed our focus either towards individual households, which are often taken to be self evident, or to societal wholes, with the result that the ways in which societies are actually constituted at various scales of social life through daily practices ritual events have not been explored much.

The archaeological literature abounds with reconstructions in which large local communities developed under either ecological or demographic pressure, taking the form of climatic change, population growth and / or warfare. I would argue that this linkage was proposed primarily because of the dominant perception that life in large local communities was undesirable and stressful, an idea that is based primarily on a western tradition of thought originating in the industrial revolution, rather than being based on archaeological evidence. In fact, there is little evidence in the Near Eastern Neolithic that people were forced into forming (large) local communities.

Instead, the evidence we have suggests that people were actively seeking to find ways to become involved with others and to form enduring social collectivities with them. In the Neolithic of the Fertile Crescent we can point to the construction of large monumental structures, especially in the Early Neolithic horizon, and the decrease in ubiquity, size and elaborateness of such buildings later in the Neolithic, and the emergence of local communities of thousands of people in empty landscapes, at sites such as 'Ain Ghazal and Wadi Shu'eib. In Central Anatolia the settlements of Aşıklı Höyük and Çatalhöyük, within each of which several thousand people must have lived, also appear to have been located in landscapes without contemporary settlements in the vicinity. Thus, it would appear that people were constructing communities rather than being forced into them. In order to understand how these communities were constructed we need to map the forms of social collectivities that existed at these sites and how they were interrelated. It is argued that local communities were constituted mainly on the basis of daily interaction and shared experiences, and more occasionally by ritual events such as burials or feasts.

In the following I will sketch my understanding of the ways in which the local communities of the Central Anatolian Neolithic were constituted in chronological order. This does not imply that

these sites can be understood as representative of a more or less linear grand development occurring in the Central Anatolian Neolithic. To mention two examples: first, at Çatalhöyük the clustered neighbourhoods were abandoned in the Late Ceramic Neolithic, but at Erbaba and Canhasan I they continued to be built in later periods; second, at Erbaba upper storeys seem to have been constructed in the Late Ceramic Neolithic, but at Canhasan I they only appeared in the Early Chalcolithic. From such examples, it follows that we cannot read the evidence from the Central Anatolian Neolithic settlements as representing some sort of coherent development. Nonetheless, I do think that all the sites discussed were part of an interrelated cultural horizon and that with due care we can isolate some general trends from such an exercise.

At Aşıklı Höyük there is little evidence for autonomous households occupying discrete buildings or performing domestic activities in distinct locations at the basis of the local community, and this can be contrasted with the dominant models of Neolithic society in which discrete and autonomous households are held to be of central importance in this cultural horizon (Düring and Marciniak 2005). Instead, the households at Aşıklı Höyük seem to have been fragmented over a number of spaces in the clustered neighbourhood. It is probable that these spaces were not privately owned but distributed amongst neighbourhood residents. The neighbourhood as a whole probably encompassed some 30 families, or about 150 people. These people would have all been acquainted with one another, and were engaged in close contact and social control. It is argued that this group of people conceived of themselves as some sort of collective. The members of this collective attached great value to the buildings that they inhabited, which were as a rule exactly replicated from one building phase to the next. In total 10 – 15 neighbourhoods would have existed at Aşıklı Höyük during its maximum expansion, with a population of several thousands. Members of sodalities that crosscut the neighbourhood collectives would have come together in the monumental complexes on special occasions and in this way would have contributed to the integration of the local community as a whole.

At Canhasan III much less specific information is available for the reconstruction of the local community and its components. It seems that this community was also of a significant size, perhaps numbering a thousand people in its prime. The settlement was subdivided into a number of clustered neighbourhoods, and if these were of similar composition to those of earlier Aşıklı Höyük and later Çatalhöyük, we can estimate that there were between 3 and 8 clustered neighbourhoods. It is likely that these clustered neighbourhoods at Canhasan III would also have conceived of themselves as corporate groups. There is no evidence for communal buildings at Canhasan III, but this may simply be a matter of the limited size of the exposure investigated. The buildings at Canhasan III are markedly larger than those at Aşıklı Höyük, and could tentatively be interpreted as household residences, although there is no contextual evidence to confirm (or negate) this.

Çatalhöyük has been the main focus of analysis in this study mainly because of the quality and abundance of the evidence that is available, and the remains from this site can be divided into the early levels X-VI, and the late levels V-I. Both in the early and late levels, clear and spatially discrete household residences can be distinguished, typically with a living room containing hearths, ovens, and with their floors divided into a number of compartments, and in some buildings there were also additional storage rooms. On the basis of the size of these buildings and the interpretation of some floor compartments as beds, we can reconstruct an average household size of about 5 people. There are some instances of buildings with multiple living rooms at Çatalhöyük, but these are few and discrete households seem to have been the norm. Household residences at Çatalhöyük are more than domestic residences, however. The spatial configuration of features with the living rooms and the compartmentalisation of the floors is highly standardised across the site and in all levels, and suggests that this configuration was linked to social and symbolic concepts that were of central importance to society. Further, there are features that are differentially distributed amongst the houses at Çatalhöyük, notably the moulded features, installations, and sub-floor burials. These features were predominantly clustered in a few buildings, which constitute about 20 % of the overall assemblage of the buildings. Thus not all buildings were equally appropriate locales for the

activities associated with these features. In all levels at Çatalhöyük evidence for communal buildings is conspicuously absent, and instead ritual behaviour seems to have taken place in domestic buildings and within neighbourhoods.

In the early levels X – VI, clustered neighbourhoods at Çatalhöyük would have been in the range of 30 to 40 houses, and the population would have been in the range of 150 to 200 people. These people would have constituted a face-to-face community on the basis of the restricted size of these groups and the fact that people would have encountered one another with great frequency on the roofscapes, which functioned as a living space used for various purposes during the hot part of the year. The fact that people knew each other would have ensured a certain degree of social control, both with regard to unwanted intrusion of the neighbourhood by non-residents and with regard to unsocial behaviour of neighbourhood members.

On the basis of the extraordinary continuity of buildings at Çatalhöyük over time, in which buildings were generally reproduced with exactly the same dimensions and interior configurations over centuries, it can be argued that the households living in these neighbourhoods probably did not own their residences, in which case we would expect more modifications of buildings in conjunction with changes in household fortunes. It seems more likely that households were assigned their houses by the larger neighbourhood community according to their demands, needs, and status. The individual households may have competed with one another in such a system for large or high status buildings.

In a diachronic perspective we can show that inconspicuous domestic structures over time could become highly elaborate lineage houses, in which a large number of people were buried from a larger group of households. Thus a clear relation between building pedigree and building status can be demonstrated at the site. Each neighbourhood would have had an estimated five or six high status lineage houses and these would have been the central focus to a house group consisting of approximately seven households. The Çatalhöyük settlement seems to have reached its apex during level VII or VI, and might have had between 5300 and 8000 inhabitants, and between 27 and 53 neighbourhoods. This is an impressive population for the Neolithic period, and I have argued that the local community might have been ideational in nature rather than practical and based on personal interactions. Nonetheless, the links of people to Çatalhöyük must have been particularly strong, considering the long sequence of occupation and the size the settlement reached.

In the upper levels at Çatalhöyük the local community seems to have shrunk in size because the extent of the settlement is much more restricted in these levels. The settlement texture in these upper levels is much more open, and streets and possibly doors became common. In the spatial configuration of the settlement during this period buildings could for the most part be reached directly though alleys or large courts internal to the neighbourhood, and the roofscape was no longer the common transport and communications route. The roofs continued to be used for a range of activities, but now they would have been accessed only by the residents of the house below, given a few exceptions. In this new constellation of space occurring at Çatalhöyük, the daily interaction between people resident in the neighbourhood would have decreased considerably with the internal courts and alleys now being used for transport and communication, but not for domestic or craft activities. These spaces were also harder to monitor, resulting in a loss of social control. Nonetheless, it is likely that residences would still have been organised by factors of social distance, and that access to neighbourhoods continued to be restricted to residents and invitees.

The ways in which people related to their houses was fundamentally different in the upper levels at Çatalhöyük, however. Building continuity was not adhered to strictly, and buildings were adapted more to the demands of residents. In this situation it appears that buildings were no longer collectively owned but became private residences. This argument is corroborated by the fact that sub-floor burials are no longer clustered in buildings with a long pedigree and with elaborate predecessors. I have argued that people were now being buried in the houses of important lineage leaders rather than in houses of proper pedigree. If this reconstruction is correct this could mark the

appearance of institutionalised hierarchies, along with a more prominent role of the household in society in the Late Ceramic Neolithic at Çatalhöyük.

At Erbaba we are dealing with a community much smaller in scale than those of Aşıklı Höyük, Canhasan III, and Çatalhöyük. While all of the sites discussed earlier could have been endogamous, it is probable that Erbaba engaged in network alliances with other small Neolithic sites in the same region. We can compare the local community at Erbaba, that was in the range of 200 to 300 people, and had one or two clustered neighbourhoods, and in which most people would have known one another first hand, to a single clustered neighbourhood at the other sites. Thus, whereas at Aşıklı Höyük and Çatalhöyük the clustered neighbourhoods were all located in the same settlement, in the Lake Beyşehir region they were dispersed across a number of small sites, which do not seem to be differentiated in size (and as they were all located in similar locations, might not have been differentiated functionally).

The evidence at Canhasan I is in many ways similar to that of Erbaba. At both sites people were constructing upper storeys, and living quarters were being moved upstairs. The reasons for this development are not clear, but it is part of a trend throughout the Central Anatolian Neolithic in which houses became larger, which is perhaps related to an increasing household autonomy and competition. There is no evidence to suggest that household groups became larger, but neither can we prove that they did not. What seems to be the case at Erbaba and Canhasan I, however, is that the non-residential amount of space increases, but that the living quarters remained similar in size.

Very little can be said about the structure of the local community at Canhasan I, beyond the fact that here too, buildings were grouped in neighbourhood clusters, and it could be argued that the inhabitants of the neighbourhood formed a corporate social group. No evidence for lineage houses or communal buildings has been found, but this does not mean that such institutions did not exist. The population of the local community at Canhasan I might have been somewhere in the range of 2500 to 3800 people during the peak occupation of the site, and this would amount to between 13 and 26 clustered neighbourhoods. In the Çatalhöyük region Baird (2002) has demonstrated that during the Early Chalcolithic a settlement system existed with sites that were clearly differentiated in size, and if a similar configuration existed in the Canhasan I area, Canhasan I would probably have been a central site in such a system.

Summarising the discussion in this section, the settlement of the Central Anatolian Neolithic cannot be understood as developing under the influence of population pressure or climatic changes. Local communities of several thousands of people were living in isolated settlements in more or less empty landscapes and must have chosen to do so. Within these settlements people were organised into clustered neighbourhoods the size of a face-to-face community, and knew each other intimately, and there would have been a great amount of social control. In the earliest site, at Aşıklı Höyük, families do not seem to have occupied discrete houses, but were dispersed across different rooms in the neighbourhoods. Later in the Neolithic, at Çatalhöyük, we do find discrete houses, and each family was living in a modular residence. However, the clustered neighbourhood was still of great importance to the constitution of the local community. Halfway through the sequence at Çatalhöyük, the clustered neighbourhoods disintegrate at the expense of the individual households that probably came to own their houses at that time. At the later sites of Erbaba and Canhasan I the clustered neighbourhood association persists, but the individual buildings expanded considerably in size, suggesting that there too, households took on a more prominent role in the fabric of the local community. Thus in one sentence, in the Central Anatolian Neolithic we see the gradual substitution of large and encompassing forms of social association, such as the local community and the clustered neighbourhood group, to the smaller social collectivity of the household, eventually resulting in the break-up and demise of the clustered neighbourhoods.

CONCLUSION

This study provides a spatial, contextual, diachronic and configurational analysis of a group of clustered neighbourhood settlements that belong to the Central Anatolian Neolithic and can be dated between 8500 and 5500 Cal. BC, with the aim of providing a better understanding of the ways in which society was constituted in this cultural horizon. The methodology employed was geared at extracting systematic evidence from large, extensively excavated and often poorly published sites, and involved the creation of grid referenced digital plans, and the construction of a database specifying the distribution of features across these settlements, so that their distribution can be studied.

The Central Anatolian Neolithic constitutes a distinct centre of early neolithisation in the context of the Near Eastern Neolithic, and this is evident from, amongst other issues, distinct traditions in chipped stone industries, burial practices and the forms of buildings and settlements. Amongst the features particular to the Central Anatolian Neolithic are the clustered neighbourhood settlements that are the focus of this study. The study of the Central Anatolian Neolithic was first taken up in earnest in the 1960s, and a more recent phase of intensive research started in the 1990s. The nature of the data retrieved in these two phases of research differs in scale and resolution and this study aims to bring together extensive evidence from large-scale excavations with high-resolution data from more recent projects.

The nature of the relation between material culture and human behaviour at large is at the core of the archaeological enterprise, but this focus has helped to create a false dichotomy between mind and matter. The settlements of the Central Anatolian Neolithic were meaningful and structured social life in multiple ways, but the text analogy often used in archaeology misconstrues this relation with its central tenet of intentional communication. Such discursive communication is rare in material culture. More common are, on the one hand, non-discursive meaning, for instance allowing us to differentiate between sherry bottles, and, on the other, structuring features of objects and configurations, for example in the case of prison bars.

The space versus place opposition often discussed in archaeology has created the illusion of incompatible approaches, whereas in fact the two perspectives can be fruitfully combined. In relation to the analysis of settlements this allows us to combine the analysis of: first, spatial configurations, with methods based on space syntax methods; second, contextual analysis of settlements, using GIS methods; and, third, the diachronic development of buildings and neighbourhoods, using a cultural biography approach. On the basis of this analysis past societies can be studied at various levels, ranging from the household to the local community.

One method to enhance our understanding of the Central Anatolian Neolithic settlements is through the study of vernacular loam building tradition in the Near East today. Such an approach is suited for understanding the material dimensions of these buildings, rather than social or cultural issues. On the basis of the vernacular building traditions we can gain an understanding of a series of matters, such as the insulating qualities of loam as a building material, the roof span possible with particular building technologies, and the differential treatment of living rooms and other spaces in terms of features present and plaster frequency and quality, that are basic to any interpretation of loam buildings from the past. Further, vernacular loam building traditions are important for our understanding of the versatile nature of loam buildings and the constant flow of changes that occur both in particular buildings and in the settlement as a whole. In this study it was shown that the stratigraphy of many of the sites of the Central Anatolian Neolithic is highly problematic, due to the constant and fragmented changes occurring in these settlements. In this situation the concept of archaeological levels or strata becomes questionable, and stratigraphies can

be understood as an approximation of what a settlement could have been like at a specific point in time rather than an accurate representation of an historical reality.

The clustered neighbourhood settlements of the Central Anatolian Neolithic are a diverse group of settlements. The earliest site of Aşıklı Höyük, can be dated between 8200 and 7400 Cal. BC and measures about 4 ha. The site was mainly investigated in the subsurface levels, and seems to have been organised into a number of clustered neighbourhoods separated from one another by streets or alleys. The individual neighbourhoods have a total of approximately 30 living rooms, as indicated by the presence of stone dressed hearths, suggesting that about 150 people were living in them. The approximately 30 families resident in these neighbourhoods do not seem to have occupied spatially discrete houses, but were instead dispersed over a number of rooms in the neighbourhoods. These rooms were probably assigned to neighbourhood residents by a corporate group consisting of all neighbourhood residents, in light of the lack of change in loam building over centuries of redevelopment and the fact that discrete houses did not exist. The exact reproduction of the individual buildings was of great importance to the people at this site, in which the internal configuration was faithfully reproduced while there was no functional reason to do so, and it has been argued that this was a strategy in which the present was legitimised as the timeless past.

The total population of Aşıklı Höyük during its peak expansion may have been several thousands and the estimated number of neighbourhoods was in the range of 10 to 15. Several monumental building complexes have been found at the site, that diverge from the domestic structure in their size, building materials and buildings technologies employed, and in the features present in them. These complexes are located in distinct locations and do not seem to be associated with particular neighbourhoods. Their main features are large internal courts surrounded by walls, and it has been suggested that these were used for meetings by sodalities crosscutting the neighbourhoods at Aşıklı Höyük, and in this way connected people from different parts of the local community.

At Canhasan III, dated between 7600 and 6600 Cal. BC and measuring about 1 ha, the investigations were restricted to a surface scrape of a limited area and much less is known about the settlement and its form. Here too, buildings were arranged in clustered neighbourhoods, which included at least 10 buildings, but were probably considerably larger. The individual buildings were significantly larger than those of Aşıklı Höyük, and it is likely that they served as household residences, although there is no contextual evidence to corroborate this.

The most systematically investigated site of this study is Çatalhöyük, which was first investigated in the 1960s and has been the focus of renewed excavations from 1993 onwards. The site can be dated between 7400 and 6000 Cal. BC and measures approximately 13 ha. The 1960s excavations have produced a wealth of data but these were not systematically published and complicated measures had to be taken to arrive at a comprehensive database. This could then be augmented and contrasted with the high-resolution data emerging from the current excavations. The sequence at Çatalhöyük can be divided into the early levels X-VI, and the late levels V-I, which differ in many respects. The buildings at the site are of a modular nature, of more or less standardised sizes and with a similar set of features and spatial organisation in all buildings. On the basis of the room sizes and the interpretation of specific compartments as beds it was estimated that these buildings would have been inhabited by approximately five people. Further, the standardised spatial organisation of features and building compartments was interpreted as being linked to social and symbolic principles central to society and it was argued that the Çatalhöyük houses were an important vehicle for the transmission and reproduction of these principles. Finally, it was noted that sub-floor burials were clustered in a minority of buildings.

In the early levels X-VI the Çatalhöyük neighbourhoods was organised into clustered neighbourhoods that included some 30 to 40 houses, totalling some 150 to 200 people. The inhabitants would have been well acquainted with one another through interactions on the roofscape, and social control would have been considerable. Within the neighbourhood there were

an estimated five or six high status lineage houses with large clusters of sub-floor burials and these would have been the central focus of a house group consisting of approximately seven households. These lineage houses were of long pedigree and had predecessor structures that also had burials. In a diachronic perspective these buildings can be seen to develop from inconspicuous domestic structures to buildings with many sub-floor burials, that included people who had been resident elsewhere, and in some cases moulded features and installations. The total population of Çatalhöyük would have reached between 5 and 8 thousand people in levels VII or VI, and would have included between 27 and 53 clustered neighbourhoods. No communal buildings or facilities were found and it is suggested that the local community was mainly held together by ideational factors.

In the upper levels V-I the clustered neighbourhoods of Çatalhöyük disappear, and most buildings could not be accessed directly from open courts or alleys. The roofscape was no longer an important transport or communications route and interaction between residents would have been much less intense and regular in this spatial configuration. Although residence was probably still determined by social links, it is argued that households came to own the specific houses they inhabited. Buildings change more rapidly and building continuity seems less important in the upper levels. Some buildings contained large clusters of sub-floor burials, and thus people continued to associate in supra-household groups, but these buildings were no longer those with a long pedigree and illustrious predecessors. Instead, it may have been the status of the main inhabitant that made specific buildings appropriate as burial sites in the upper levels.

The settlement of Erbaba, which can dated between 6700 and 6400 Cal. BC, and measures about 0.5 ha, differs in many respects from the other sites. It is located amongst many other small sites, in contrast to sites such as Aşıklı Höyük and Çatalhöyük that were isolated in the landscape. The local community at Erbaba was in the range of 200 – 300 people and could have lived in one or two clustered neighbourhoods. Thus we can compare the size of a single clustered neighbourhood at Aşıklı Höyük and Çatalhöyük, with numerous clustered neighbourhoods, with the many small Neolithic sites in the Lake Beyşehir region. In one case the clustered neighbourhoods were concentrated in a single neighbourhood, in the other they were dispersed across the landscape.

At both Erbaba and Canhasan I we can document the appearance of two storey buildings, and domestic quarters were moved upstairs. This is part of a trend throughout the Central Anatolian Neolithic in which household residences became more and more substantial, and this is probably related to the increasing household autonomy and competition between households.

The Early Chalcolithic occupation at Canhasan I can be dated to between 6000 and 5600 Cal. BC. On the basis of circumstantial evidence it is likely that the site was a central settlement and that there were smaller dependent satellite settlements in the surrounding region. Thus Canhasan I is probably the only site in this study that was part of a functionally differentiated settlement system.

The clustered neighbourhood settlements discussed in this study are difficult to accommodate with the dominant interpretations of early Neolithic societies. The community society discourse, in which life in large agglomerations is seen as stressful and undesirable, has led archaeologists to argue that people were forced into the creation of large local communities by climatic or demographic factors. However, there is little in the archaeological record that can be used to substantiate such a view, and instead it might be argued that people wanted to construct communities. Further, the normatively laden community - society dichotomy has directed the archaeological focus to either households or societal wholes, and the manner in which societies were constituted has been neglected as a result.

By contrast this study has sought to identify the social collectivities that existed in the clustered neighbourhoods of the Central Anatolian Neolithic and the ways in which they are interrelated. This has led to some interesting observations. First, contrary to the dominant model, households only appear as the central element of society towards the end of the Central Anatolian

Neolithic. Second, communal buildings are not necessarily best explained as arising out of stress factors related to the growth of local communities: both in the Fertile Crescent and in Central Anatolia these structures seem to be important mainly in the earliest Neolithic, rather than in the phase when local communities reached their maximum extent. Third, throughout the Central Anatolian Neolithic the clustered neighbourhoods were an important form of social association, taking on the form of a corporate group no larger than a face-to-face community. At Aşıklı Höyük they were the dominant form of social association, later they coexisted with embedded households for some time, but seem to have fragmented in the end with the increasing autonomy of households. Fourth, the social constitution of Neolithic societies take on highly diverse forms, for instance lineage houses only seem to exist in the early levels X-VI at Çatalhöyük, and communal buildings were only found at Aceramic Aşıklı Höyük and Musular. Thus, the way in which society was constituted needs to be studied for each site separately rather than assumed on the basis of a general model.

In conclusion, this study has sought to explore the ways in which societies were constituted in the context of the Central Anatolian Neolithic in order to identify some of the mechanisms that were involved in the creation and reproduction of social groups in this cultural horizon. I hope the study has been of some value to better our understanding of the constitution of Central Anatolian Neolithic societies and hope this work is of interest beyond that time and place.

BIBLIOGRAPHY

- Abbès, F., N. Balkan-Atlı, D. Binder, and M.-C. Cauvin
1999 Etude technologique préliminaire de l'industrie lithique d'Aşıklı Höyük. *Türkiye Bilimler Akademisi-Arkeoloji Dergisi* 2: 117-138.
- Adams, J.W., and A.B. Kasakoff
1976 Factors underlying endogamous group size. In C.A. Smith (ed.), *Regional analysis, Volume II, Social systems*, 149-173. Academic Press, New York.
- Adler, M.A.
1989 Ritual facilities and social integration in nonranked societies. In W.D. Lipe and M. Hegmon (eds), *The architecture of social integration in Prehistoric Pueblos*, 35-52. Crow Canyon Archaeological Center, Cortez.
- Adler, M.A., and R.H. Wilshuysen
1990 Large-scale integrative facilities in tribal societies, Cross-cultural and southwestern US examples. *World Archaeology* 22:133-146.
- Akbar, J.
1993 Gates as signs of autonomy in Muslim towns. *Muqarnat* 10:141-147.
- Akkermans, P.A., J.A.K. Boerma, A.T. Clason, S.G. Hill, E. Lohof, C. Meiklejohn, M. Le Mièrre, G.M.F. Molgat, J.J. Roodenberg, W. Waterbolk-Van Rooyen, and W. Van Zeist
1983 Bouqras revisited, Preliminary report on a project in Eastern Syria. *Proceedings of the Prehistoric Society* 49: 335-372.
- Akkermans, P.M.M.G.
2004 *Het einde van de oude wereld en het begin van de nieuwe tijd, Verandering in Syrië en de Levant in het Late Neolithicum*. Inaugural Thesis, Leiden.
- Akkermans, P. M. M. G., and G.M. Schwartz
2003 *The archaeology of Syria, From complex hunter-gatherers to early urban societies (ca. 16.000-300 BC)*. Cambridge University Press, Cambridge.
- Akkermans, P.M.M.G., J. Limpens, and R.H. Spoor
1993 On the frontier of Assyria, Excavations at Tell Sabi Abyad, 1991. *Akkadica* 84/85:1-52.
- Alex, M.
1985 *Klimadaten ausgewählter Stationen des Vorderen Orients*. Ludwig Reichert Verlag, Wiesbaden.
- Allison, P.M.
1999 Introduction. In Allison, P.M. (ed.), *The archaeology of households*, 1-18. Routledge, London.
- Allison, P.M. (ed.)
1999 *The archaeology of household activities*. Routledge, London.
- Al-Messiri Nadim, N.
1979 The concept of the Hara, A historical and sociological study of Al-Sukkariyya. *Annales Islamologiques* 15:313-348.
- Alsayyad, N.
1992 Modeling traditional Islamic cities. *MIMAR* 43:26-33.
- 1996 The study of Islamic urbanism, An historiographic essay. *Built Environment* 22:91-97.
- Amit, V., and N. Rapport
2002 *The trouble with community, Anthropological reflections on movement, identity and collectivity*. Pluto Press, London.
- Andel, T.H. Van, and C.N. Runnels
1995 The earliest farmers in Europe. *Antiquity* 69:481-500.
- Andrefsky, W.
1998 *Lithics, Macroscopic approaches to analysis*. Cambridge University Press, Cambridge.
- Andrews, G., J.C. Barret, and J.S.C. Lewis
2000 Interpretation not record, The practice of archaeology. *Antiquity* 74:525-530.

- Andrews, P., T. Molleson,, and B. Boz,
2005 The human burials at Çatalhöyük. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 261-278. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Angel, L.
1971 Early Neolithic skeletons from Çatal Hüyük, Demography and pathology. *Anatolian Studies* 21: 77-98.
- Antoun, R.T.
1972 *Arab village, A social structural study of a Trans-Jordanian peasant community*. Indiana University Press, London.
- Ashmore, W., and R.R. Wilk
1988 Household and community in the Mesoamerican past. In R.R. Wilk and W. Ashmore (eds), *Household and community in the Mesoamerican past*, 1-27. University of New Mexico Press, Albuquerque.
- Asouti, E.
2005 Woodland vegetation and the exploitation of fuel and timber at Neolithic Çatalhöyük, Report on the wood charcoal macro-remains. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 213-258. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Asouti, E., and A. Fairbairn
2002 Subsistence economy in Central Anatolia during the Neolithic, The archaeobotanical evidence. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC.*, 181-192. Ege Yayınları, Istanbul.
- Asouti, E., and J. Hather
2001 Charcoal analysis and the reconstruction of ancient woodland vegetation in the Konya Basin, south-central Anatolia, Turkey, Results from the Neolithic site of Çatalhöyük East. *Vegetation History and Archaeobotany* 10:23-32.
- Asouti, E., A. Erkal, A. Fairbairn, C. Hastorf, A. Kennedy, J. Near, and A.M. Rosen
1999 Archaeobotany and related plant studies. *Çatalhöyük 1999 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- Aswad, B.C.
1971 *Property control and social strategies, Settlers on a Middle Eastern plain*. Museum of Anthropology, University of Michigan, Ann Arbor.
- Ataman, K.
1988 *The chipped stone assemblage from Canhasan III, A study in typology, technology, and function*. Unpublished PhD dissertation, University College London.
- Aurenche, O.
1981 *La maison orientale, L'architecture du proche orient ancien. Des origines au milieu du quatrième millénaire*. Institut Français d'Archéologie du Proche Orient / Paul Geuthner, Paris.
- Aurenche, O., M. Bazin, and S. Sadler
1997 *Villages engloutis, Enquête ethnoarchéologique à Cafer Höyük (vallée de l'Euphrate)*. Maison de l'Orient Méditerranéen, Paris.
- Aurenche, O., Galet, P., Régagnon-Caroline, E., Évin, J.
2001 Proto-Neolithic and Neolithic cultures in the Middle East, The birth of agriculture, livestock raising, and ceramics, A calibrated 14C Chronology 12,500-5500 cal BC. *Radiocarbon* 43:1191-1202.
- Bailey, D.W.
1990 The living house, Signifying continuity. In R. Samson (ed.), *The social archaeology of houses*, 19-48. Edinburgh University Press, Edinburgh.
- 1999 What is a Tell? Settlement in fifth millennium Bulgaria. In J. Brück and M. Goodman (eds), *Making places in the Prehistoric world*, 94-111. University College of London Press, London.
- 2000 *Balkan Prehistory, Exclusion, incorporation and identity*. Routledge, London.
- Baird, D.

- 1996 The Konya Plain survey, Aims and methods. In I. Hodder (ed.), *On the surface, Çatalhöyük 1993-95*, 41-46. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- 2000 Settlement and landscape in the Konya Plain, South Central Turkey, from the Epipalaeolithic to the Medieval period. In *Çatalhöyük'ten günümüze Çumra*, 269-276, Çumra.
- 2002 Early Holocene settlement in Central Anatolia, Problems and prospects as seen from the Konya Plain. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC.*, 139-159. Ege Yayınları, Istanbul.
- 2004 Pınarbaşı. *Anatolian Archaeology*:2-3.
- in prep The history of settlement and social landscapes in the Early Holocene in the Çatalhöyük area. In I. Hodder (ed.), *Çatalhöyük perspectives, Themes from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Banning, E.B.
1997 Spatial perspectives on early urban development in Mesopotamia. In W.E. Aufrecht, N.A. Mirau, and S.W. Gauley (eds), *Urbanism in Antiquity, From Mesopotamia to Crete*, 17-34. Sheffield Academic Press, Sheffield.
- 2003 Housing Neolithic farmers. *Near Eastern Archaeology* 66:4-21.
- Balkan-Atlı, N.
1994 The typological characteristics of the Aşıklı Höyük chipped stone industry. In H.G. Gebel, and S.K. Kozłowski (eds), *Neolithic chipped stone industries of the Fertile Crescent*, 209-221. Ex Oriente, Berlin.
- 1998 The Aceramic Neolithic of Central Anatolia, Recent finds in the chipped stone industry. In M.J. Mellink, G. Arsebük, and W. Schirmer (eds), *Light on top of the black hill, Studies presented to Halet Çambel*, 81-94. Ege Yayınları, Istanbul.
- Balkan-Atlı, N., and D. Binder
2001 Les ateliers de taille d'obsidienne fouilles de Kömürcü - Kaletepe 2000. *Anatolia Antiqua* 9:193-205.
- Balkan-Atlı, N., D. Binder, and C. Kuzucuoğlu
1999a L'atelier Néolithique de Kömürcü-Kaletepe, Fouilles de 1998. *Anatolia Antiqua* 7:231-243.
- Balkan-Atlı, N., D. Binder, and M.-C. Cauvin
1999b Obsidian sources, workshops and trade in Central Anatolia. In M. Özdoğan and N. Başgelen (eds), *Neolithic in Turkey*, 133-145. Arkeoloji ve Sanat Yayınları, Istanbul.
- Balossi Restelli, F.
2001 *Formation processes of the first developed Neolithic societies in the Zagros and the Northern Mesopotamian Plain*. Università di Roma 'La Sapienza', Rome.
- Barnard, A., and J. Spencer
1996 *Encyclopedia of social and cultural anthropology*. Routledge, London.
- Barret, J.C., and K.T. Fewster
2000 Intimacy and structural transformation, Giddens and archaeology. In C. Holtorf and H. Karlsson (eds), *Philosophy and archaeological practice, Perspectives for the 21st century*, 25-38. Bricoleur Press, Göteborg.
- Bar-Yosef, O.
1986 The walls of Jericho, An alternative interpretation. *Current Anthropology* 27:157-162.
- 2001 From sedentary foragers to village hierarchies, The emergence of social institutions. In W.G. Runciman (ed.), *The origin of human social institutions*, 1-38. British Academy, Oxford.
- Bar-Yosef, O., and A. Belfer-Cohen

- 2002 Facing environmental crisis, Societal and cultural changes at the transition from the Younger Dryas to the Holocene in the Levant. In R.T.J. Cappers, and S. Bottema (eds), *The dawn of farming in the Near East*, 55-66. Ex Oriente, Berlin.
- Bacvarov, K.
2003 *Neolitni pogrebalni obredi. Intramuralni grobove ot bulgarskite zemi v konteksta na jugoiztochna evropa i anatolia. (Neolithic mortuary practices, Intramural burials in Bulgaria in the southeast European and Anatolian context)*. Bard, Sofia.
- Baysal, A., and K.I. Wright
in prep Cooking, crafts and curation, Ground stone artefacts from Çatalhöyük (1995-1999 excavations). In I. Hodder (ed.), *Changing materialities at Çatalhöyük, Reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Beck, R. (ed.)
in prep *The durable house, Architecture, ancestors and origins*. Center for Archaeological Investigations, Carbondale.
- Becks, R., and T. Jacobs
1996 Çatal Hüyük, Zur Rekonstruktion von Prestige innerhalb räumlicher Strukturen. In J. Müller and R. Bernbeck (eds), *Prestige, Prestigegüter, Sozialstrukturen, Beispiele aus dem europäischen und vorderasiatischen Neolithikum*, 57-80. Holos, Bonn.
- Beile-Bohn, M., C. Gerber, M. Morsch, and K. Schmidt
1998 Neolithische Forschungen in Obermesopotamien, Gürcütepe und Göbekli Tepe. *Istanbuler Mitteilungen* 48:5-78.
- Bender, B.
1978 Gatherer-hunter to farmer, A social perspective. *World Archaeology* 10:204-222.
- Berk, C.
1951 *Konya evleri*. Istanbul Teknik Üniversitesi Mimarlık Fakültesi, Istanbul.
- Berker, D., I. Yağmur, and A. Korkut-Atlı
1991 Appendix I, Statistical report on the mud-brick constructions of Aşıklı Höyük. [In U. Esin, E. Bıçakçı, M. Özbaşaran, N. Balkan-Atlı, D. Berker, I. Yağmur, I., and A. Korkut-Atlı, Salvage excavations at the Pre-Pottery site of Aşıklı Höyük in Central Anatolia]. *Anatolica* 27:149-153.
- Bernbeck, R.
1994 *Die Auflösung der häuslichen Produktionsweise, Das Beispiel mesopotamiens*. Dietrich Reimer Verlag, Berlin.
- 1999 Structure strikes back, Intuitive meaning of ceramics from Qale Rostam, Iran. In J.E. Robb (ed.), *Material symbols, Culture and economy in Prehistory*, 90-111. Center for Archaeological Investigations, Carbondale.
- Bialor, P.A.
1962 The chipped stone industry of Çatal Hüyük. *Anatolian Studies* 12:67-110.
- Bianca, S.
1991 *Hofhaus und Paradies, Architektur und Lebensformen in der islamischen Welt*. Beck, München.
- Bienert, H.-D.
1991 Skull cult in the Prehistoric Near East. *Journal of Prehistoric Religion* 5:9-23.
- Biewers, M.
1997 *l'Habitat traditionnelle à 'Aima, Enquête ethnoarchéologique dans un village Jordanien*. Archaeopress, Oxford.
- Binder, D.
2002 Stones making sense, What obsidian could tell about origins. In F. Gérard, and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC*, 79-90. Ege Yayınları, Istanbul.
- Binford, L.R.
1962 Archaeology as anthropology. *American Antiquity* 28:217-225.
- 1968 Post-Pleistocene adaptations. In S. R. Binford and L.R. Binford (eds), *New perspectives in archaeology*, 313-341. Aldine Publishing, Chicago.

-
- 2001 *Constructing frames of reference, An analytical method for archaeological theory building using hunter-gatherer and environmental data sets*. University of California Press, Berkeley.
- Bintliff, J.L.
 1991 The contribution of an annaliste / structural approach to archaeology. In J.L. Bintliff (ed.), *The annales school and archaeology*, 1-33. Leicester University Press, London.
-
- 1999 Settlement and territory. In G. Barker (ed.), *Companion encyclopedia of archaeology*, 505-545. Routledge, London.
- Birdsell, J.B.
 1973 A basic demographic unit. *Current Anthropology* 14:337-356.
- Bittel, K.
 1950 *Grundzüge der Vor- und Frühgeschichte Kleinasiens*. Verlag Ernst Wasmuth, Tübingen.
- Bıçakçı, E.
 2001 Tepecik-Çiftlik Höyüğü, Niğde kazısı ışığında Orta Anadolu Tarihöncesi kültürleri ile ilgili yeni bir değerlendirme. *Türkiye Bilimler Akademisi-Arkeoloji Dergisi* 4:25-41.
-
- 2003 Observations on the Early Pre-Pottery Neolithic architecture in the Near East I, New building materials and construction techniques. In M. Özdoğan, H. Hauptmann, and N. Başgelen (eds), *Köyden kente, Yakındoğu'da ilk yerleşimler*, 385-413. Arkeoloji ve Sanat Yayınları, Istanbul.
- Bıçakçı, E., and M. Özbaşaran
 1991 Part II, Aşıklı Höyük 1989, 1990, Building activities. [In U. Esin, E. Bıçakçı, M. Özbaşaran, N. Balkan-Atlı, D. Berker, I. Yağmur, and A. Korkut-Atlı, Salvage excavations at the Pre-Pottery site of Aşıklı Höyük in Central Anatolia]. *Anatolica* 27:136-145.
- Blanchet, G., P. Sanlaville, and M. Traboulsi
 1998 Le Moyen-Orient de 20000 ans BP à 6000 ans BP, Essai de reconstitution paléoclimatique. *Paléorient* 23:187-196.
- Blanton, R.E.
 1994 *Houses and households, A comparative study*. Plenum Press, New York.
- Blanton, R.E., G.M. Feinman, S.A. Kowalewski, and P.N. Peregrine
 1996 Agency, ideology and power in archaeological theory. *Current Anthropology* 37:1-14.
- Blau, P.M., and Schoenherr, R.A.
 1971 *The structure of organizations*. Basic Books, New York.
- Bloch, M.
 1967 *The historian's craft*. Manchester University Press, Manchester.
- Bloch, M.
 1998a What goes without saying, The conceptualisation of the Zafimaniry society. In M. Bloch (ed.), *How we think they think, Anthropological approaches to cognition, memory, and literacy*, 22-38. Westview Press, Boulder.
-
- 1998b Time, narratives, and the multiplicity of representations of the past. In M. Bloch (ed.), *How we think they think, Anthropological approaches to cognition, memory, and literacy*, 100-113. Westview Press, Boulder.
- Bonogofsky, M.
 2004 A bioarchaeological study of plastered skulls from Anatolia, New discoveries and interpretations. *International Journal of Osteoarchaeology* 15: 124-135.
- Bogucki, P.
 1999 *The origins of human societies*. Blackwell, Malden.
- Boivin, N.
 2000 Life rhythms and floor sequences, Excavating time in rural Rajasthan and Neolithic Çatalhöyük. *World Archaeology* 31:367-388.
- Booth, S.S.
 1999 Reconstructing sexual geography, Gender and space in changing Sicilian landscapes. In D. Birdwell-Pheasant and D. Lawrence-Zúñiga (eds), *House life, Space, place and family in Europe*, 133-156. Berg, Oxford.
- Bordaz, J.

- 1965 Suberde excavations 1964. *Anatolian Studies* 15:30-32.
- 1966 Suberde excavations 1965. *Anatolian Studies* 16:32-33.
- 1968 The Suberde excavations, Southwestern Turkey. An interim report. *Türk Arkeoloji Dergisi* 17: 43-71.
- 1969 A preliminary report of the 1969 excavations at Er Baba, A Neolithic site near Beyşehir, Turkey. *Türk Arkeoloji Dergisi* 18:59-64.
- 1973 Current research in the Neolithic of South Central Turkey, Suberde, Er Baba and their chronological implications. *American Journal of Archaeology* 77:282-288.
- Bordaz, J., and L.A. Alpers-Bordaz
1976 Er Baba excavations, 1974. *Türk Arkeoloji Dergisi* 23:39-43.
- 1977a Beyşehir-Suğla basin project. *American Journal of Archaeology* 81:291.
- 1977b Er Baba excavations 1976. *Anatolian Studies* 27:32-33.
- 1978a Beyşehir-Er Baba. *American Journal of Archaeology* 82:316.
- 1978b Er Baba excavations 1977. *Anatolian Studies* 28:20-21.
- 1982 Er Baba, The 1977 and 1978 seasons in perspective. *Türk Arkeoloji Dergisi* 26:85-92.
- Boserup, E.
1965 The conditions of agricultural growth, The economics of agrarian change under population pressure. George Allen and Unwin, London.
- Bott, E.
1957 *Family and social network, Roles, norms and external relationships in ordinary urban families*. Tavistock, London.
- Bottema, S.
2002 The use of palynology in tracing early agriculture. In R.T. J. Cappers and S. Bottema (eds), *The dawn of farming in the Near East*, 27-38. Ex Oriente, Berlin.
- Boz, B., and Hager, L.
2003 Human remains. *Çatalhöyük 2004 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- 2004 Human remains. *Çatalhöyük 2004 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- 2005 Human remains. *Çatalhöyük 2005 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- Bourdieu, P.
1973 The Berber house. In M. Douglas (ed.), *Rules and meaning*, 98-110. Penguin, Suffolk.
- 1977 *Outline of a theory of praxis*. Cambridge University Press, Cambridge.
- Bradley, R.
2001 The birth of architecture. In W.G. Runciman (ed.), *The origin of human social institutions*, 69-92. British Academy, Oxford.
- 2002 *The past in Prehistoric societies*. Routledge, London.
- 2005 *Ritual and domestic life in Prehistoric Europe*. Routledge, London.
- Braidwood, R.J.

- 1953 Did man once live by beer alone? [with contributions by J.D. Sauer, H. Helbaek, P.C. Mangelsdorf, C.S. Coon, R. Linton, J. Steward, L. Oppenheim]. *American Anthropologist* 55:515-526.
-
- 1960 The agricultural revolution. *Scientific American* 203:130-141.
- Braidwood, R.J., and H. Çambel
 1982 The Çayönü excavations. In L.S. Braidwood and R.J. Braidwood (eds), *Prehistoric village archaeology in Southeastern Turkey*, 1-13. British Archaeological Reports, Oxford.
- Braidwood, R.J., and B. Howe
 1960 *Prehistoric investigations in Iraqi Kurdistan*. Chicago University Press, Chicago.
- Brown, F.E.
 1990 Comments on Chapman, Some cautionary notes on the application of spatial measures to Prehistoric settlements. In R. Samson (ed.), *The social archaeology of houses*, 93-109. Edinburgh University Press, Edinburgh.
- Brown, S.L.
 2002 Community as cultural critique. In S.L. Brown (ed.), *Intentional community, An anthropological perspective*, 153-179. State University of New York Press, New York.
- Brown, S.L. (ed.)
 2002 *Intentional community, An anthropological perspective*. State University of New York Press, New York.
- Brück, J.
 1998 In the footsteps of the ancestors, A review of Christopher Tilley's 'A phenomenology of landscape, Places, paths and monuments'. *Archaeological Review from Cambridge* 15:23-36.
-
- 1999 What's in a settlement? Domestic practice and residential mobility in Early Bronze Age southern England. In J. Brück and M. Goodman (eds), *Making places in the Prehistoric world*, 52-75. University College London Press, London.
- Brück, J., and M. Goodman
 1999 Introduction, Themes for a critical archaeology of Prehistoric settlement. In J. Brück and M. Goodman (eds), *Making places in the Prehistoric world*, 1-19. University College London Press, London.
- Brunner, H.-U., and M. Geering
 1971 Dorfanlage und Hausbau. Alacahöyük, Ethnografische Skizzen eines Anatolisches Dorfes. *Jahrbuch des Bernisches Historisches Museum* 47/48 [1967/1968]:197-214.
- Bryson, R.A., and R.U. Bryson
 1999 Holocene climates as simulated with archaeoclimatic models. *Türkiye Bilimler Akademisi Arkeoloji Dergisi* 2:1-14.
- Buchli, V. (ed.)
 2004 *Material culture, Critical concepts in the social sciences*. Routledge, London.
- Buitenhuis, H.
 1997 Aşıklı Höyük, A 'protodomestic' site. *Anthropozoologica* 25:655-662.
- Bull, I.D., M.M. Elhmmali, V. Perret, W. Matthews, D.J. Roberts, and R.P. Evershed
 2005 Biomarker evidence of faecal deposition in archaeological sediments at Çatalhöyük. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 415-420. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Burnham, H.B.
 1965 Çatal Hüyük, The textiles and the twined fabrics. *Anatolian Studies* 15:169-174.
- Byrd, B.F.
 1994 Public and private, domestic and corporate, The emergence of the Southwest Asian village. *American Antiquity* 59:639-666.
-
- 2000 Households in transition, Neolithic social organization within Southwest Asia. In I. Kuijt (ed.), *Life in Neolithic farming communities, Social organization, identity, and differentiation*, 63-98. Kluwer Academic Press, New York.
- Caneva, I.

- 1999 Early farmers on the Cilician Coast, Yumuktepe in the seventh millenium BC. In M. Özdoğan and N. Başgelen (eds), *The Neolithic of Turkey*, 105-114. Arkeoloji ve Sanat Yayınları, Istanbul.
- Canuto, M.A., and J. Yaeger (eds)
2000 *The archaeology of communities, A new world perspective*. Routledge, London and New York.
- Carneiro, R.
2002 The tribal village and its culture, An evolutionary stage in the history of human society. In W.A. Parkinson (ed.), *The archaeology of tribal societies*, 34-52. University of Michigan, Ann Arbor.
- Carsten, J.
1987 Analogues or opposites, Household and community in Pulau Langkawi, Malaysia. In C. Macdonald, *De la hutte au palais, Sociétés 'à maison' en Asie du Sud-Est insulaire*, 153-168. Centre National de la Recherche Scientifique, Paris.
- Carsten, J., and S. Hugh-Jones
1995 Introduction. In J. Carsten and S. Hugh-Jones (eds), *About the house, Lévi-Strauss and beyond*, 1-47. Cambridge University Press, Cambridge.
- Carsten, J., and S. Hugh-Jones (eds)
1995 *About the house, Lévi-Strauss and beyond*. Cambridge University Press, Cambridge.
- Carter, T., J. Conolly, and A. Spasojević
in prep The chipped stone. In I. Hodder (ed.), *Changing materialities at Çatalhöyük, Reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Casey, E.S.
1996 How to get from space to place in a fairly short stretch of time, Phenomenological prolegomena. In S. Feld and K.H. Basso (eds), *Senses of place*, 13-51. School of American Research Press, Santa Fe.
- Casselberry, S.E.
1974 Further refinement of formulae for determining population from floor area. *World Archaeology* 6:116-122.
- Cauvin, J.
1997 *Naissance des divinités, Naissance de l'agriculture*. Flammarion, Paris.
- Cessford, C.
2001 A new dating for Çatalhöyük. *Antiquity* 75:717-25.
- 2002 Bayesian statistics and the dating of Çatalhöyük East. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC*, 27-31. Ege Yayınları, Istanbul.
- 2003 Microartifactual floor patterning, The case at Çatalhöyük. *2003 Assemblage Issue* at: www.shef.ac.uk/assem/3/3chad.html.
- 2005 Estimating the Neolithic population of Çatalhöyük. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 323-326. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- in prep-a Absolute dating at Çatalhöyük. In I. Hodder (ed.), *Changing materialities at Çatalhöyük, Reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- in prep-b Heavy residue analysis. In I. Hodder (ed.), *Changing materialities at Çatalhöyük, Reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- in prep-c Neolithic excavations in the North Area, East Mound, Çatalhöyük 1995-1998. In I. Hodder (ed.), *Excavating Çatalhöyük, South, North and KOPAL Area reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Cessford, C., and J. Near

- in prep Fire, burning and pyrotechnology at Çatalhöyük. In I. Hodder (ed.), *Çatalhöyük Perspectives, Themes from the 1995-1999 Seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Chadwick, A.
1998 Archaeology at the edge of chaos, Further towards reflexive excavation methodologies. 1998 *Assemblage Issue* at: www.shef.ac.uk/assem/3/3chad.html.
- Chang, K.C. (ed.)
1968 *Settlement archaeology*. National Press Books, Palo Alto.
- Chapman, J.
1990 Social inequality on Bulgarian tells and the Varna problem. In R. Samson (ed.), *The social archaeology of houses*, 49-92. Edinburgh University Press, Edinburgh.
- 1991 The early Balkan village. In O. Grøn, E. Engelstad and I. Lindblom (eds), *Social space, Human spatial behaviour in dwellings and settlements*, 79-99. Odense University Press, Odense.
- 2000 *Fragmentation in Archaeology, People, places and broken objects in the Prehistory of South Eastern Europe*. Routledge, London.
- Chesson, M.S.
2001 Embodied memories of place and people, Death and society in an early urban community. In M.S. Chesson (ed.), *Social memory, identity, and death, Anthropological perspectives on mortuary rituals*, 100-113. American Anthropological Association, Arlington.
- 2003 Households, houses, neighborhoods and corporate villages, Modelling the Early Bronze Age as a House Society. *Journal of Mediterranean Archaeology* 16:79-102.
- Childe, V.G.
1929 *The Danube in Prehistory*. Clarendon Press, Oxford.
- 1950 The urban revolution. *Town Planning Review* 21:3-17.
- Christensen, N.
1967 Haustypen und Gehöftbildung in Westpersien. *Anthropos* 62:89-138.
- Ciolek-Torello, R.
1984 An alternative model of room function from Grasshopper Pueblo, Arizona. In H.J. Hietala (ed.), *Intrasite spatial analysis in archaeology*, 127-153. Cambridge University Press, Cambridge.
- Claessen, H.J.M.
1981 Reaching for the moon? Some problems and prospects of cultural evolutionism. In S.E. Van Der Leeuw (ed.), *Archaeological approaches to the study of complexity*, 15-37. University of Amsterdam, Amsterdam.
- Clamagirand, A.-C.
2004 L'Apparition du phénomène religieux dans l'Anatolie Néolithique. In O. Pelon (ed.), *Studia Aegeo-Anatolica*, 119-148. Maison de L'orient et de la Méditerranée - Jean Pouilloux, Lyon.
- Clarke, D.L.
1968 *Analytical archaeology*. Methuen, London.
- Clarke, D.L. (ed.)
1977 *Spatial archaeology*. Academic Press, London.
- Cohen, A.P.
1985 *The symbolic construction of community*. Travistock, London.
- 2002 Epilogue. In V. Amit (ed.), *Realizing community, Concepts, social relationships and sentiments*, 165-170. Routledge, London.
- Cohen, H.R.
1970 The palaeoecology of South Central Anatolia at the end of the Pleistocene and the beginning of the Holocene. *Anatolian Studies* 20:119-137.
- Cohen, M.N.
1977 *The food crisis in Prehistory*. Yale University Press, New Haven / London.
- Colledge, S., J. Conolly, and S. Shennan

- 2004 Archaeobotanical evidence for the spread of farming in the Eastern Mediterranean. *Current Anthropology* 45(supplement): 35-58.
- Collon, D.
1990 Subjective reconstruction? The Çatal Hüyük wall-paintings. *Hali* 53:119-123.
- Connerton, P.
1989 *How societies remember*. Cambridge University Press, Cambridge.
- Contenson, H., De
1968 J.Mellaart: Çatal Hüyük, A Neolithic town in Anatolia. [book review]. *Antiquity* 42:72-74.
- Conolly, J.
1996 The knapped stone. In I. Hodder (ed.), *On the surface, Çatalhöyük 1993-95*, 173-198. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- 1999a *The Çatalhöyük flint and obsidian industry, Technology and typology in context*. Archaeopress, Oxford.
- 1999b Technical strategies and technical change at Neolithic Çatalhöyük, Turkey. *Antiquity* 73:791-800.
- 2000 Çatalhöyük and the archaeological 'object'. In I. Hodder (ed.), *Towards reflexive method in archaeology, The example at Çatalhöyük*, 51-56. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Cook, S.F., and R.F. Heizer
1968 Relationships among houses, settlement areas, and population in Aboriginal California. In K.C. Chang (ed.), *Settlement archaeology*, 79-116. National Press Book, Palo Alto.
- Copeland, L.
2000 The flint and obsidian industries. In M. Verhoeven and P.M.M.G. Akkermans (eds), *TellSabi Abyad II, The Pre-Pottery Neolithic settlement*, 51-89. Nederlands Historisch-Archaeologisch Instituut te Istanbul, Istanbul.
- Costa, F.J., and A.G. Noble
1986 Planning Arabic towns. *Geographical Review* 76:160-172.
- Cunningham, C.
1973 Order in the Atoni house. In R. Needham (ed.), *Right and left, Essays on dual symbolic classification*, 204-238. University of Chicago Press, Chicago.
- Cutting, M.
2003 The use of spatial analysis to study Prehistoric settlement architecture. *Oxford Journal of Archaeology* 22:1-21.
- in prep The architecture of Çatalhöyük, Continuity, households and the lost upper levels. In I. Hodder (ed.), *Çatalhöyük perspectives, Themes from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Czerniak, L., and A. Marciniak
2003 The excavations of the TP (Team Poznan) Area in the 2003 season. *Çatalhöyük 2003 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- 2004 The excavations of the TP Area. *Çatalhöyük 2004 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- Çevik, A.
1995 Social meanings of household spaces, A modern material culture study in an Anatolian village. *Archaeological Dialogues* 2:29-36.
- Çilingiroğlu, A., Z. Derin, E. Abay, H. Sağlamtimur, and I. Kayan
2004 *Ulucak Höyük, Excavations conducted between 1995 and 2002*. Peeters, Louvain.
- Dalman, G.
1928-42 *Arbeit und Sitte in Palästina Bd. I: Jahreslauf und Tageslauf. 1. Hälfte: Herbst und Winter. 2. Hälfte: Frühling und Sommer - 1928. Bd. II : Der Ackerbau. - 1932. Bd. III: Von der Ernte zum Mehl : Ernten, Dreschen, Worfeln, Sieben, Verwahren, Mahlen. - 1933. Bd. IV: Brot, Öl und*

Wein. - 1935. Bd. V: *Webstoff, Spinnen, Weben, Kleidung*. - 1937. Bd. VI: *Zeltleben, Vieh- und Milchwirtschaft, Jagd, Fischfang*. - 1939. Bd. VII: *Das Haus, Hühnerzucht, Taubenzucht, Bienenzucht*. - 1942. Gütersloh.

Dalokay, Y.

1969 *Lehmflachdachbauten in Anatolien*. Bönecke, Braunschweig.

David, N., and C. Kramer

2001 *Ethnoarchaeology in action*. Cambridge University Press, Cambridge.

Davis, W.

1992 The deconstruction of intentionality in archaeology. *Antiquity* 66:334-347.

Delanty, G.

2003 *Community*. Routledge, London.

Derthier, J.

1982 *Des architectures de terre, Ou l'avenir d'une tradition millénaire*. Centre Georges Pompidou, Paris.

Dietrich, B.C.

1967 Some light from the east on Cretan cult practice. *Historia* 16:385-413.

Dohm, K.

1990 Effects of population nucleation on house size for Pueblos in the American Southwest. *Journal of Anthropological Archaeology* 9:201-239.

Douglas, M.

1982 Cultural bias. In M. Douglas (ed.), *In the active voice*, 183-254. Routledge and Kegan Paul, London.

Driessen, P.M.

1970 *Soil salinity and alkalinity in the Great Konya Basin, Turkey*. Centre for Agricultural Publishing and Documentation, Wageningen.

Ducos, P.

1988 *Archaeozoologie quantitative, Les valeurs immédiates à Çatal Hüyük*. Centre National de la Recherche Scientifique, Paris.

Düring, B.S.

2001 Social dimensions in the architecture of Neolithic Çatalhöyük. *Anatolian Studies* 51:1-18.

2002 Cultural dynamics of the Central Anatolian Neolithic, The Early Ceramic Neolithic - Late Ceramic Neolithic transition. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC*, 219-236. Ege Yayınları, Istanbul.

2003 Burials in context, The 1960s inhumations of Çatalhöyük East. *Anatolian Studies* 53:1-15.

2005a Building continuity in the Central Anatolian Neolithic, Exploring the meaning of buildings at Aşıklı Höyük and Çatalhöyük. *Journal of Mediterranean Archaeology* 18:3-29.

2005b Building 50, Spaces 112 and 231 (South Area). *Çatalhöyük 2005 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.

in prep The articulation of houses at Neolithic Çatalhöyük, Turkey. In R. Beck (ed.), *The durable house, Architecture, ancestors and origins*. Center for Archaeological Investigations, Carbondale.

Düring, B.S., and A. Mariciniak

2005 Households and communities in the Central Anatolian Neolithic. *Archaeological Dialogues* 12/2.

Dunbar, R.

1992 Neocortex size as a constraint on group size in primates. *Journal of Human Evolution* 22:469-493.

1996 *Grooming, gossip and the evolution of language*. Harvard University Press, Cambridge MA.

Durkheim, E.

- 1964 [1893] *The division of labor in society* [Translated by G. Simpson, 2nd edition]. The Free Press, New York.
- Duru, G.
2002 Some architectural indications for the origins of Central Anatolia. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC*, 171-180. Ege Yayınları, Istanbul.
- Duru, R.
1989 Were the earliest cultures at Hacilar really aceramic? In K. Emre, M. Mellink, B. Hrouda, and N. Özgüç (eds), *Anatolian and the acient Near East, Studies in honor of Tahsin Özgüç*, 99-106, Türk Tarih Kurumu Basımevi Ankara.
- 1994 *Kuruçay Höyük I, Results of the excavations 1978-1988. The Neolithic and Early Chalcolithic periods*. Türk Tarih Kürümü Basımevi, Ankara.
- 1999 The Neolithic of the Lake district. In M. Özdoğan and N. Başgelen (eds), *The Neolithic of Turkey*, 147-156. Arkeoloji ve Sanat Yayınları, Istanbul.
- 2002 Some observations on the early stages of pottery production in the Lake District (Ancient Pisidia). In R. Aslan, S. Blum, G. Kastl, F. Schweizer, and D. Thumm (eds), *Mauerschau, Festschrift für Manfred Korfmann*, 403-419. Bernhard Albert Greiner, Remshalden-Grunbach.
- Dyson-Hudson, R., and E.A. Smith
1978 Human territoriality, An ecological reassessment. *American Anthropologist* 80:21-41.
- Eichmann, R.
1991 *Aspekte Prähistorischer Grundrissgestaltung in Vorderasien, Beiträge zum Verständnis bestimmter Grundrißmerkmale in ausgewählten neolithischen und chalkolithische Siedlungen des 9.-4. Jahrtausend v. Chr. (mit Beispielen aus der europäischen Prähistorie)*. Verlag Philipp von Zabern, Mainz am Rhein.
- Eickelman, D.F.
1974 Is there an Islamic city? The making of a quarter in a Morrocan town. *International Journal of Middle Eastern Studies* 5:274-294.
- 1998 *The Middle East and Central Asia, An anthropological approach [third edition]*. Prentice Hall, New Jersey.
- Eiland, M.L.
1993 The past re-made, The case of oriental carpets. *Antiquity* 67:859-863.
- Ellen, R.
1986 Microcosm, macrocosm and the Nuaulu house, Concerning the reductionist fallacy as applied to methaporical levels. *Bijdragen tot de Taal- Land- en Volkenkunde* 142:1-30.
- Engelstad, E.
1991 Gender and the use of household space, An ethnoarchaeological approach. In O. Grøn, E. Engelstad and I. Lindblom (eds), *Social space, Human spatial behaviour in dwellings and settlements*, 49-54. Odense University Press, Odense.
- Esin, U.
1991 Aşıklı Höyük (Kızılkaya - Akşaray) kurtarma kazısı 1989. *Türk Arkeoloji Dergisi* 29: 1-34.
- 1993 Zum Ursprung des Kastenbauweise in Anatolien. *Istanbuler Mitteilungen* 43:123-128.
- 1995 Early copper metallurgy at the Pre-Pottery site of Aşıklı. In H. Çambel (ed.), *Readings in Prehistory, Studies presented to Halet Çambel*, 61-77. Graphis Yayınları, Istanbul.
- 1996 Aşıklı ten thousand years ago, A habitation model from Central Anatolia. In Y. Sey (ed.), *Housing and settlement in Anatolia, A historical perspective*, 31-42. Türkiye Ekonomik ve Toplumsal Tarih Vakfı, Istanbul.
- 1998a The Aceramic site of Aşıklı and its ecological conditions based on its floral and faunal remains. *Türkiye Bilimler Akademisi-Arkeoloji Dergisi* 1: 63-94.

-
- 1998b Hunted animals at Aşıklı and the environment. In P. Anreiter, L. Bartosiewicz, E. Jerem, and W. Meid (eds), *Man and the animal world, Studies in archaeozoology, anthropology and palaeolinguistics, In memoriam Sandor Bönköyi*, 215-226. Archaeolinqua, Budapest.
-
- 1999 Introduction, The Neolithic in Turkey, A general review. In M. Özdoğan, and N. Başgelen (eds), *The Neolithic of Turkey*, 13-23. Arkeoloji ve Sanat Yayınları, Istanbul.
- Esin, U., and S. Harmankaya
 1999 Aşıklı. In M. Özdoğan and N. Başgelen (eds), *The Neolithic of Turkey*, 115-132. Arkeoloji ve Sanat Yayınları, Istanbul.
- Esin, U., E. Bıçakçı, M. Özbaşaran, N. Balkan-Atlı, D. Berker, I. Yağmur, and A. Korkut-Athl
 1991 Salvage excavations at the Pre-Pottery Neolithic site of Aşıklı Höyük in Central Anatolia. *Anatolica* 17:123-174.
- Facey, W.
 1997 *Back to earth, Adobe building in Saudi Arabia*. Al-Turath, London.
- Fairbairn, A., E. Asouti, J. Near, and D. Martinoli
 2002 Macro-botanical evidence for plant use at Neolithic Çatalhöyük, south-central Anatolia, Turkey. *Vegetation History and Archaeobotany* 11:41-54.
- Fairbairn, A., J. Near, and D. Martinoli
 2005 Macrobotanical investigations of the North, South and KOPAL Area excavations at Çatalhöyük East. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 137-201. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Farid, S.
 2000 The excavation process at Çatalhöyük. In I. Hodder (ed.), *Towards reflexive method in archaeology, The example at Çatalhöyük*, 19-35. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
-
- 2002 South area shelter. *Çatalhöyük 2000 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
-
- in prep South Area excavations. In I. Hodder (ed.), *Excavating Çatalhöyük, South, North and KOPAL Area reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Fathy, H.
 1973 *Architecture for the poor*. University of Chicago Press, Chicago.
- Feinman, G.M.
 2000 Corporate / Network, A new perspective on leadership in the American Southwest. In M.W. Diehl (ed.), *Hierarchies in action, Cui Bono?*, 152-180. Center for Archaeological Investigations, Carbondale.
- Ferembach, D.
 1972 Les hommes du gisement Néolithiques de Çatal Hüyük. *Türk Tarih Kongresi* 1:13-21.
-
- 1982 *Mesures et indices des squelettes humains Neolithiques de Çatal Hüyük (Turquie)*. Centre National de la Recherche Scientifique, Paris.
- Flannery, K.V.
 1969 Origins and ecological effects of early domestication in Iran and the Near East. In P. J. Ucko and G.W. Dimbleby (eds), *The domestication and exploitation of plants and animals*, 73-100. Duckworth, London.
-
- 1972a The origins of the village as a settlement type in Mesoamerica and the Near East, A comparative study. In R. Tringham, P.J. Ucko, and G.W. Dimbleby (eds), *Man, settlement and urbanism*, 23-53. Duckworth, Gloucester.
-
- 1972b Archaeology with a capital S. In C. Redman (ed.), *Research and theory in contemporary archaeology*, 47-53. John Wiley, London.

-
- 2002 The origins of the village revisited, From nuclear to extended households. *American Antiquity* 67:417-433.
- Frame, S.
2001 West Mound, 2001 animal bone report. *Çatalhöyük 2001 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- French, D.
1962 Excavations at Can Hasan, First preliminary report, 1961. *Anatolian Studies* 12:27-40.
-
- 1963 Excavations at Can Hasan, Second preliminary report, 1962. *Anatolian Studies* 13:29-42.
-
- 1964 Excavations at Can Hasan, Third preliminary report, 1963. *Anatolian Studies* 14:125-134.
-
- 1965 Excavations at Can Hasan, Fourth preliminary report, 1964. *Anatolian Studies* 15:87-94.
-
- 1966 Excavations at Can Hasan, Fifth preliminary report, 1965. *Anatolian Studies* 16:113-123.
-
- 1967 Excavations at Can Hasan, Sixth preliminary report, 1966. *Anatolian Studies* 17:165-178.
-
- 1968 Excavations at Can Hasan, Seventh preliminary report, 1967. *Anatolian Studies* 18:45-54.
-
- 1970 Can Hasan. *Türk Arkeoloji Dergisi* 19:39-44.
-
- 1972 Settlement distribution in the Konya Plain, South Central Turkey. In R. Tringham, P.J. Ucko, and G.W. Dimbleby (eds), *Man, settlement and urbanism*, 231-238. Duckworth, Gloucester.
-
- 1998 *Canhasan sites I, Stratigraphy and structures*. British Institute of Archaeology at Ankara, Ankara.
-
- 2005 *Canhasan I, The Pottery*. British Institute of Archaeology at Ankara, Ankara.
- French, D., G.C. Hillman, S. Payne, and R.J. Payne
1972 Excavations at Can Hasan III, 1969-1970. In E.S. Higgs (ed.), *Papers in economic Prehistory*, 181-190. Cambridge University Press, Cambridge.
- Fried, M.
1967 The evolution of political society, An essay in political anthropology. Random House, New York.
- Friedl, E., and A.G. Löffler
1994 The ups and downs of dwellings in a village in west Iran, The history of two compounds. *Archiv für Völkerkunde* 48:1-44.
- Fontijn, D.
2002 *Sacrificial landscapes, Cultural biographies of persons, objects and 'natural' places in the Bronze Age of the Southern Netherlands, c. 2300-600 BC*. Leiden University, Leiden.
- Forest, J.D.
1993 Çatal Hüyük et son decor, Pour le déchiffrement d'une code symbolique. *Anatolia Antiqua* 2:1-42.
- Forge, A.
1972 Normative factors in the settlement size of Neolithic cultivators (New Guinea). In R. Tringham, P.J. Ucko, and G.W. Dimbleby (eds), *Man, settlement and urbanism*, 363-76. Duckworth, London.
- Forth, G.
1981 *Rindi, An ethnographic study of a Sumbanese domain*. Martinus Nijhoff, Den Haag.
- Gamble, C.
1999 *The Palaeolithic societies of Europe*. Cambridge University Press, Cambridge.
- Gangler, A.
1993 *Ein traditionelle Wohnviertell im Nordosten der Altstadt von Aleppo in Nordsyrien*. Ernst Wasmuth Verlag, Berlin.

- Garfinkel, Y.
1998 Dancing and the beginning of art scenes in the early village communities of the Near East and Southeast Europe. *Cambridge Archaeological Journal* 8:207-237.
- Garstang, J.
1953 *Prehistoric Mersin, Yümük Tepe in Southern Turkey, The Neilson Expedition in Cilicia*. Clarendon Press, Oxford.
- Gebel, H.G.
2002 The Neolithic of the Near East, An essay on a 'polycentric evolution' and other current research problems. In A. Hausleiter, S. Kerner, and B. Müller-Neuhof (eds), *Material culture and mental spheres*, 313-324. Ugarit Verlag, Münster.
- Geertz, H.
1979 The meaning of family ties. In C. Geertz, H. Geertz, and L. Rosen (eds), *Meaning and order in Moroccan society, Three essays in cultural analysis*, 315-379. Cambridge University Press, Cambridge.
- Gennep, A., Van
1909 *Les rites de passage*. Émile Nourry, Paris.
- Gérard, F.
2002 Transformations and societies in the Neolithic of Central Anatolia. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC*, 105-117. Ege Yayınları, Istanbul.
- Gérard, F., and L. Thissen (eds)
2002 *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC. Proceedings of the international CANeW Table Ronde, Istanbul, 23-24 november, 2001*. Ege Yayınları, Istanbul.
- Gerritsen, F.
1999 To build and to abandon, The cultural biography of Late Prehistoric houses and farmsteads in the southern Netherlands. *Archaeological Dialogues* 2:78-97.
- 2003 *Local identities, Landscape and community in the Late Prehistoric Meuse-Demer-Scheldt region*. Amsterdam University Press, Amsterdam
- 2004 Archaeological perspectives on local communities. In J.L. Bintliff (ed.), *Companion to archaeology*, 141-154. Blackwell, Oxford.
- Gibson, C., J. Last, T. Raszick, and S. Frame
2002 Çatalhöyük West mound study season 2002. *Çatalhöyük 2002 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- Giddens, A.
1984 *The constitution of society, Outline of a theory of structuration*. Polity Press, Cambridge.
- Gillespie, S.D.
2000a Lévi-Strauss, *Maison and Société à Maisons*. In R.A. Joyce and S.D. Gillespie (eds), *Beyond kinship, Social and material reproduction in house societies*, 22-52. University of Philadelphia Press, Philadelphia.
- 2000b Beyond kinship, An introduction. In R.A. Joyce and S.D. Gillespie (eds), *Beyond kinship, Social and material reproduction in house societies*, 1-21. University of Philadelphia Press, Philadelphia.
- 2000c Maya 'nested houses', The ritual construction of place. In R.A. Joyce and S.D. Gillespie (eds), *Beyond kinship, Social and material reproduction in house societies*, 135-160. University of Philadelphia Press, Philadelphia.
- Gimbutas, M.
1991 *The civilization of the goddess, The world of old Europe*. Harper, San Fransisco.
- Glassie, H.M.
2004 [reprint 1975 *Folk housing in Middle Virginia*] The architectural competence. In V. Buchli (ed.), *Material culture, Critical concepts in the social sciences*, 1-28. Routledge, London.
- Gluckman, M.

- 1962 Les rites de passage. In M. Gluckman (ed.), *Essays on the rituals of social relations*, 1-52. Manchester University Press, Manchester.
- Göktürk, E.H., D.J. Hillegonds, M.E. Lipschutz, and I. Hodder
2002 Accelerator mass spectrometry dating at Çatalhöyük. *Radiochimica Acta* 90:407-10.
- Gosden, C.
1999 The organization of society. In G. Barker (ed.), *Companion encyclopedia of archaeology*, 470-504. Routledge, London.
- Gosden, C., and Y. Marshall
1999 The cultural biography of objects. *World Archaeology* 31:169-178.
- Gould, R.A., and P.J. Watson
1982 A dialogue on the meaning and use of analogy in ethnoarchaeological reasoning. *Journal of Anthropological Archaeology* 1:355-381.
- Gratuze, B., J.N. Barrandon, M. Al Isa, and M.-C. Cauvin
1994 Non destructive analysis of obsidian artefacts using nuclear techniques, Investigation of the provenance of Near Eastern artefacts. *Archaeometry* 35:1-11.
- Gray, J.
2002 Community as placemaking, Ram auctions in the Scottish borderland. In V. Amit (ed.), *Realizing community, Concepts, social relationships and sentiments*, 38-59. Routledge, London.
- Grøn, O., E. Engelstad, and I. Lindblom (eds)
1991 *Social space, Human spatial behaviour in dwellings and settlements*. Odense University Press, Odense.
- Gülçür, S.
1995 Some unknown aspects of Western Cappadocia, Results of the 1993 survey. In G. Arsebük, M.J. Mellink, and W. Schirmer (eds), *Readings in Prehistory, Studies presented to Halet Çambel*, 149-174. Graphis Yayınları, Istanbul.
- 1997 Güvercinkayası, Eine vorgeschichtliche Felsrückensiedlung in Zentralanatolien. *Anatolica* 23:85-110.
- Güldoğan, E.
2003 Aşıklı Höyük sürtmetaş endüstrisi buluntulardan bir grup, Öğütücü ve ezici aletler. In M. Özdoğan, H. Hauptmann, and N. Başgelen (eds), *Köyden kente, Yakındoğu'da ilk yerleşimler*, 415-427. Arkeoloji ve Sanat Yayınları, Istanbul.
- Guerreiro, A.
1987 'Longue maison' et 'grande maison', Considérations sur l'ordre social dans le centre de Bornéo. In C. Macdonald (ed.), *De la hutte au palais, Sociétés 'à maison' en Asie du Sud-Est insulaire*, 45-66. Centre National de la Recherche Scientifique, Paris.
- Gusfield, J.R.
1975 *Community, A critical response*. Basil Blackwell, Oxford.
- Hall, G., S. McBride, and A. Riddel
1973 Asvan 1968-1972, Architectural study. *Anatolian Studies* 23:245-269.
- Halstead, P.
1999 Neighbours from hell? The household in Neolithic Greece. In P. Halstead (ed.), *Neolithic society in Greece*, 77-95. Sheffield University Press, Sheffield.
- Halpern, J.M., and B.K. Halpern
1972 *A Serbian village in historical perspective*. Holt, Rhineheart and Winston, New York.
- Hamilakis, Y.
1999 La trahison des archéologues? Archaeological practice as intellectual activity in postmodernity. *Journal of Mediterranean Archaeology* 12:60-79.
- Hamilton, C.
2000 The construction of archaeological knowledge at Çatalhöyük. In I. Hodder (ed.), *Towards reflexive method in archaeology, The example at Çatalhöyük*, 119-127. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Hamilton, N.
1996 Figurines, clay balls, small finds and burials. In I. Hodder (ed.), *On the Surface, Çatalhöyük 1993-5*, 215-264. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.

-
- 1998 Re-thinking burial and society at Çatalhöyük. *Neo-Lithics* 1998/3:7-8.
-
- 2005 Social aspects of burial. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 301-306. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
-
- in prep-a The figurines. In I. Hodder (ed.), *Changing materialities at Çatalhöyük, Reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
-
- in prep-b The beads. In I. Hodder (ed.), *Changing materialities at Çatalhöyük, Reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Hanson, J.
1998 *Decoding homes and houses*. Cambridge University Press, Cambridge.
- Harmankaya, S., O. Tanındı, and M. Özbaşaran
1997 *Türkiye arkeoloji yerleşmeleri 2, Neolitik*. Ege Yayınları, İstanbul.
- Harrison, K.
2004 Fire and burning at Çatalhöyük, Integrating forensic practice. *Çatalhöyük 2004 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- Hassan, F.A.
1981 *Demographic archaeology*. Academic Press, New York.
-
- 1997 Beyond the surface, Comment's on Hodder's 'reflexive excavation methodology'. *Antiquity* 71:1020-25.
- Hauptmann, H.
1993 Ein Kultgebäude in Nevalı Çori. In M. Frangipane, H. Hauptmann, M. Liverani, P. Matthiae, and M.J. Mellink (eds), *Between the rivers and over the mountains, Archaeologica Anatolica et Mesopotamica, Alba Palmieri dedicata*, 37-69. Università di Roma 'La Sapienza', Rome.
-
- 1999 The Urfa region. In M. Özdoğan and N. Başgelen (eds), *Neolithic in Turkey*, 65-86. Arkeoloji ve Sanat Yayınları, İstanbul.
- Hayden, B.
1990 Nimrods, piscators, pluckers, and planters, The emergence of food production. *Journal of Anthropological Archaeology* 9:31-69.
- Heinrich, E. and U. Seidl.
1969 Zur Siedlungsform von Çatal Hüyük. *Archäologischer Anzeiger* 84:113-119.
- Helbaek, H.
1963 Textiles from Çatal Hüyük. *Archaeology* 16:39-46.
-
- 1964 First impressions of the Çatal Hüyük plant husbandry. *Anatolian Studies* 14:120-123.
- Helms, M.W.
1998 *Access to origins, Affines, ancestors and aristocrats*. University of Texas Press, Austin.
- Hendon, J.A.
1996 Archaeological approaches to the organization of domestic labor, Household practice and domestic relations. *Annual Review of Anthropology* 25:45-61.
- Henry, D.O.
1989 *From foraging to agriculture, The Levant at the end of the Ice Age*. University of Pennsylvania Press, Philadelphia.
- Hietala, H.J. (ed.)
1984 *Intrasite spatial analysis in archaeology*. Cambridge University Press, Cambridge.
- Hillier, B.
1996 *Space is the machine, A configurational theory of architecture*. Cambridge University Press, Cambridge.
- Hillier, B., and J. Hanson

- 1984 *The social logic of space*. Cambridge University Press, Cambridge.
- Hillier, B., A. Leaman, P. Stansall, and M. Bedford
 1978 Space syntax. In D. Green, C. Hasselgrove, and M. Spriggs (eds), *Social organisation and settlement*, 343-384. British Archaeological Reports, Oxford.
- Hillman, G.
 1978 On the origin of domestic rye, *Secale Cereale*, The finds from Aceramic Can Hasan III in Turkey. *Anatolian Studies* 28:157-174.
- Hillman, G., and M.S. Davies
 1992 Domestication rate in the wild wheats and barley under primitive cultivation, Preliminary results and archaeological implications of field measurements of selection coefficient. In P.C. Anderson (ed.), *Préhistoire de l'Agriculture, Nouvelles approches expérimentales et ethnographiques*, 113-158. Centre National de la Recherche Scientifique, Paris.
- Hodder, I.
 1982a Theoretical archaeology, A reactionary view. In I. Hodder (ed.), *Symbolic and structural archaeology*, 1-16. Cambridge University Press, Cambridge.
- 1982b *Symbols in action, Ethnoarchaeological studies of material culture*. Cambridge University Press, Cambridge.
- 1982c *The present past, An introduction to anthropology for archaeologists*. Batsford, London.
- 1986 *Reading the past, Current approaches to interpretation in archaeology*. Cambridge University Press, Cambridge.
- 1987 Contextual archaeology, An interpretation of Çatal Hüyük and a discussion of the origins of agriculture. *Bulletin of the Institute of Archaeology of the University of London* 24:43-56.
- 1990 *The domestication of Europe, Structure and contingency in Neolithic societies*. Blackwell, Oxford.
- 1994 Architecture and meaning, The example of Neolithic houses and tombs. In M.P. Pearson and C. Richards (eds), *Architecture and order, Approaches to social space*, 73-86. Routledge, London and New York.
- 1996a Re-opening Çatalhöyük. In I. Hodder (ed.), *On the surface, Çatalhöyük 1993-5*, 1-18. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- 1996b Çatalhöyük, 9000 year old housing and settlement in Central Anatolia. In Y. Sey (ed.) *Housing and settlement in Anatolia, An historical perspective*, 43-48. Tarih Vakfı Yayınları, Istanbul.
- 1997 Always momentary, fluid and flexible, Towards a reflexive excavation methodology. *Antiquity* 71:691-700.
- 1998a The domus, some problems reconsidered. In M. Edmonds and C. Richards (eds), *Understanding the Neolithic of Northwestern Europe*, 84-101. Cruithne Press, Glasgow.
- 1998b Çatalhöyük, Turkey, A summary of some recent results. *Documenta Praehistorica* 25:71-80.
- 1998c Whose rationality? A response to Fekri Hassan. *Antiquity* 72:213-17.
- 1998d The past as passion and play, Çatalhöyük as a site of conflict in the construction of multiple pasts. In L. Meskell (ed.), *Archaeology under fire, Nationalism, politics and heritage in the Eastern Mediterranean and Middle East*, 124-139. Routledge, London.

-
- 1999 Symbolism at Çatalhöyük. In J. Coles, R. Bewley, and P. Mellars (eds), *World Prehistory, Studies in memory of Grahame Clarke*, 177-191. The British Academy, London.
-
- 2000 Developing a reflexive method in archaeology. In I. Hodder (ed.), *Towards reflexive method in archaeology, The example at Çatalhöyük*, 3-14. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
-
- 2004 Women and men at Çatalhöyük. *Scientific American* 290:66-73.
-
- 2005 Peopling Çatalhöyük and its landscape. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 1-30. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
-
- in prep Memory. In I. Hodder (ed.), *Çatalhöyük perspectives, Themes from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Hodder, I. (ed.)
 1996 *On the surface, Çatalhöyük 1993-95*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
-
- 2000 *Towards reflexive method in archaeology, The example at Çatalhöyük*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
-
- 2005 *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
-
- in prep-a *Changing materialities at Çatalhöyük, Reports from the 1995-99 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
-
- in prep-b *Excavating Çatalhöyük, South, North and KOPAL Area reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
-
- in prep-c *Çatalhöyük perspectives, Themes from the 1995-9 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Hodder, I., and C. Cessford
 2004 Daily practice and social memory at Çatalhöyük. *American Antiquity* 69:17-40.
- Hodder, I., and C. Orton
 1976 *Spatial analysis in archaeology*. Cambridge University Press, Cambridge.
- Hole, F.
 1989 Patterns of burial in the fifth millennium. In I. Thuessen and E.F. Henrickson (eds), *Upon this foundation, The 'Ubaid reconsidered*, 149-180. Carsten Nieburh Institute, Copenhagen.
-
- 2000 Is size important?, Function and hierarchy in Neolithic settlements. In I. Kuijt (ed.), *Life in Neolithic farming communities, Social organization, identity, and differentiation*, 191-209. Kluwer Academic Press, New York.
- Holstrom, S., A. Voorrips, and H. Kamermans
 2004 *The Agro Pontino archaeological survey*. Faculty of Archaeology, Leiden.
- Horne, L.
 1982 The household in space, Dispersed holdings in an Iranian village. *American Behavioral Scientist* 25:677-685.
-
- 1994 *Village spaces, Settlement and society in Northeastern Iran*. Smithsonian Institute Press, Washington and London.
- Houben, H., and H. Guillaud
 1994 *Earth construction, A comprehensive guide*. Intermediate Technology Publications, London.

Howell, S.

1995 The Lio house, Building, category, idea, value. In J. Carsten and S. Hugh-Jones (eds), *About the house, Lévi-Strauss and beyond*, 149-169. Cambridge University Press, Cambridge.

Hütteroth, W.-D.

1968 *Ländliche Siedlungen im südlichen Inneranatolien in den letzten vierhundert Jahren*. Geographisches Institut des Universitäts Göttingen, Göttingen.

1982 *Türkei*. Wissenschaftliche Buchgesellschaft, Darmstadt.

Hugh-Jones, C.

1979 *From the milk river, Spatial and temporal processes in North-West Amazonia*. Cambridge University Press, Cambridge.

1995 Inside-out and back-to-front, The androgynous house in Northwest Amazonia. In J. Carsten and S. Hugh-Jones (eds), *About the house, Lévi-Strauss and beyond*, 226-252. Cambridge University Press, Cambridge.

Ingold, T.

1993 The temporality of the landscape. *World Archaeology* 25:152-174.

1996 Growing plants and raising animals, An anthropological perspective on domestication. In D.R. Harris (ed.), *The origins and the spread of agriculture and pastoralism in Eurasia*, 12-24. University College of London Press, London.

1999 On the social relations of the hunter-gatherer band. In R.B. Lee and R. Daly (eds), *The Cambridge encyclopedia of hunters and gatherers*, 399-409. Cambridge University Press, Cambridge.

Jacobs, J.

1969 *The economy of cities*. Random House, New York.

Janowski, M.

2003 Who's in charge around here? Struggle for leadership in a changing world among the Kelabit of Sarawak. In S. Sparkes and S. Howell (eds), *The house in Southeast Asia, A changing social, economic and political domain*, 95-113. RoutledgeCurzon, London.

Jesus, P.S., De

1985 Notes on the symbolism in the Çatal Hüyük wall paintings. In J.L. Huot, M. Yon, Y. Calvet (eds), *De l'Indus aux Balkans, Recueil a la mémoire de Jean Deshayes*, 127-145. Centre National de la Recherche Scientifique, Paris.

Johnsen, H., and B. Olsen

1992 Hermeneutics and archaeology, On the philosophy of contextual archaeology. *American Antiquity* 57:419-436.

Johnson, A.W., and Earle, T.

1987 *The evolution of human societies, From foraging group to agrarian state*. Stanford University Press, Stanford.

Johnson, G.A.

1972 A test of the utility of central place theory in archaeology. In R. Tringham, P.J. Ucko, and G.W. Dimbleby (eds), *Man, settlement and urbanism*, 769-785. Duckworth, Gloucester.

1981 Monitoring complex system integration and boundary phenomena with settlement size data. In S.E. Van Der Leeuw (ed.), *Archaeological approaches to the study of complexity*, 144-188. University of Amsterdam, Amsterdam.

1982 Organizational structure and scalar stress. In C. Renfrew, M. Rowlands, and B. Segraves (eds), *Theory and explanation in archaeology*, 389-421. Academic Press, New York.

1989 Dynamics of Southwestern Prehistory, Far outside, looking in. In L. Cordell, and Gumerman, G. (eds), *Dynamics of Southwestern Prehistory*, 371-389. Smithsonian Institution Press, Washington.

Johnson, M.

1996 Water, animals and agricultural technology, A study of settlement patterns and economic change in Neolithic Southern Greece. *Oxford Journal of Archaeology* 15:267-295.

- Jónsson, G.H.
2003 South Summit Area, Excavation of Building 10. *Çatalhöyük 2003 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- Joyce, R.A.
2001 Burying the dead at Tlatilco, Social memory and social identities. In M.S. Chesson (ed.), *Social memory, identity, and death, Anthropological perspectives on mortuary rituals*, 12-26. American Anthropological Association, Arlington.
- Joyce, R.A., and Gillespie, S.D. (eds)
2000 *Beyond kinship, Social and material reproduction in house societies*. University of Philadelphia Press, Philadelphia.
- Kafesçioğlu, R.
1949 *Orta Anadoluda köy evlerinin yapısı*. Istanbul Teknik Üniversitesi Mimarlık Fakültesi, Istanbul.
- Katz, S.H., and M.M. Voigt
1986 Bread and beer, The early use of cereals in the human diet. *Expedition* 28:23-31.
- Keeley, L.H.
1996 *War before civilization*. Oxford University Press, New York.
- Kent, S.
1990 A cross-cultural study of segmentation, architecture, and the use of space. In S. Kent (ed.), *Domestic architecture and the use of space*, 127-152. Cambridge University Press, Cambridge.
- Kirch, P.V.
2000 Temples as 'Holy Houses', The transformation of ritual architecture in traditional Polynesian societies. In R.A. Joyce and S.D. Gillespie (eds), *Beyond kinship, Social and material reproduction in house societies*, 103-114. University of Philadelphia Press, Philadelphia.
- Kleinsorge, H.
1940 Über die Auffindung eines steinzeitlichen Wohnplatzes bei Cihanbeyli, Vilayet Konya, im Gebiete des Tüz Gölü. *Maden Tetkik ve Arama Enstitüsü Mecmuası* 5:400-404.
- Knapp, A.B.
2003 The archaeology of community on Bronze Age Cyprus, Politiko *Phorades* in context. *American Journal of Archaeology* 107:559-580.
- König, R.
1968 *The community [translated from the German by E. Fitzgerald]*. Routledge and Kegan Paul, London.
- Kooij, G., Van Der
2002 Ethnoarchaeology in the Near East, Practice and theory. In W. Wendrich and G. Van Der Kooij (eds), *Moving matters, Ethnoarchaeology in the Near East*, 13-26. Centrum Niet Westerse Studies, Leiden.
- Kolb, C.C.
1985 Demographic estimates in archaeology, Contributions for ethnoarchaeology on Mesoamerican peasants. *Current Anthropology* 26:581-599.
- Kopytoff, I.
1986 The cultural biography of things, Commoditization as process. In A. Appadurai (ed.), *The social life of things, Commodities in cultural perspective*, 64-91. Cambridge University Press, Cambridge.
- Kosse, K.
1990 Group size and social complexity, Thresholds in the long-term memory. *Journal of Anthropological Archaeology* 9:275-303.
- 1994 The evolution of large complex groups. *Journal of Anthropological Archaeology* 13:35-50.
- Kovacik, J.J.
2002 Radical agency, households and, communities, Networks of power. In M. O'Donovan (ed.), *The dynamics of power*, 51-65. Center for Archaeological Investigations, Carbondale.
- Koyunlu, A.
1982 The village settlement of Munzuroğlu, Observations on housing. *Middle Eastern Technical University - Keban Publications* 7 (1974-75):249-265.
- Krafeld-Daugherty, M.

- 1994 *Wohnen im Alten Orient, Eine Untersuchung zur Verwendung von Räumen in altorientalischen Wohnhäusern*. Ugarit Verlag, Münster.
- Kramer, C.
1979 An archaeological view of a contemporary Kurdish village, Domestic architecture, household size, and wealth. In C. Kramer (ed.), *Ethnoarchaeology, Implications of ethnography for archaeology*, 139-174. Columbia University Press, New York.
- 1982 Ethnographic households and archaeological interpretation, A case from Iranian Kurdistan. *American Behavioral Scientist* 25:663-675.
- Kruijt, J.P.
1954 Gemeenschap als sociologisch begrip, Een kritiek op Tönnies. *Mededelingen der Koninklijke Nederlandse Akademie van Wetenschappen - Nieuwe Reeks* 18:59-84.
- Küçükerman, Ö.
1991 *Turkish house, In search of spatial identity*. Türkiye Turing ve Otomobil Kurumu, Istanbul.
- Kuijt, I.
1999 People and space in early agricultural villages, Exploring daily lives, community size, and architecture in the Late Pre-Pottery Neolithic. *Journal of Anthropological Archaeology* 19:75-102.
- 2000 Keeping the peace, Ritual, skull caching, and community integration in the Levantine Neolithic. In I. Kuijt (ed.), *Life in Neolithic farming communities, Social organization, identity, and differentiation*, 137-164. Kluwer Academic Press, New York.
- 2001 Place, death, and the transmission of social memory in early agricultural communities of the Near Eastern Pre-Pottery Neolithic. In M.S. Chesson (ed.), *Social memory, identity, and death, Anthropological perspectives on mortuary rituals*, 80-99. American Anthropological Association, Arlington.
- Kuijt, I., and M.S. Chesson
2005 Lumps of clay and pieces of stone, Ambiguity, bodies and identity as portrayed in Neolithic figurines. In S. Pollock and R. Bernbeck (eds), *Archaeologies of the Middle East, Critical perspectives*, 152-183. Blackwell, Oxford.
- Kuijt, I., and N. Goring-Morris
2002 Foraging, farming, and social complexity in the Pre-Pottery Neolithic of the Southern Levant, A review and synthesis. *Journal of World Prehistory* 16:361-440.
- Kuniholm, P.
1999 New dates from old trees. *Arkeometri Sonuçları Toplantısı* 14:39-44.
- Kuniholm, P., and M. Newton
1996 Interim dendrochronological progress report 1995/6. In I. Hodder (ed.), *On the surface, Çatalhöyük 1993-95*, 345-348. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- 2002 Radiocarbon and dendrochronology. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC*, 275-277. Ege Yayınları, Istanbul.
- Kuzucuoğlu, C., and N. Roberts
1998 Évolution de l'environnement en Anatolie de 20000 à 6000 BP. *Paléorient* 23:7-24.
- Kuzucuoğlu, C., M. Fontugne, M. Karabiyiçoğlu, and C. Hatté
1998 Evolution de l'environnement dans la plaine de Konya (Turquie) pendant l'Holocène. In M. Otte (ed.), *Préhistoire d'Anatolie, Genèse des deux mondes*, Université de Liège, Liège.
- Lane, P.J.
1994 The temporal structuring of settlement space among the Dogon of Mali, An ethnoarchaeological study. In M.P. Pearson and C. Richards (eds), *Architecture and order, Approaches to social space*, 196-216. Routledge, London.
- Last, J.
1996 Surface pottery at Çatalhöyük. In I. Hodder (ed.), *On the surface, Çatalhöyük 1993-5*, 115-172. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.

-
- 1998a A design for life, Interpreting the art of Çatalhöyük. *Journal of Material Culture* 3:355-378.
-
- 1998b Excavations on the west mound at Çatalhöyük 1998. *Çatalhöyük 1998 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
-
- 2000 West Mound Pottery. *Çatalhöyük 2000 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
-
- in prep-a Pottery from the east mound. In I. Hodder (ed.), *Changing materialities at Çatalhöyük, Reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
-
- in prep-b Art. In I. Hodder (ed.), *Çatalhöyük perspectives, Themes from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Lawrence, R.J.
 1990 Public collective and private space, A study of urban housing in Switzerland. In S. Kent (ed.), *Domestic architecture and the use of space*, 73-91. Cambridge University Press, Cambridge.
- Layton, R.
 1999 The human evolutionary time-scale and the transition between hunting and gathering, and farming. In J.L. Bintliff (ed.), *Structure and contingency, Evolutionary processes in life and human society*, 102-117. Leicester University Press, London.
- Leach, E.
 1950 *Social science research in Sarawak, A report on the possibilities of a social economic survey of Sarawak*. Colonial Office, London.
-
- 1978 Does space syntax really constitute the social? In D. Green, C. Hasselgrove, and M. Spriggs (eds), *Social organisation and settlement*, 385-401. British Archaeological Reports, Oxford.
- Leeuw, S.E., Van Der
 1981 Information flows, flow structures and the explanation of change in human institutions. In S.E. Van Der Leeuw (ed.), *Archaeological approaches to the study of complexity*, 230-312. University of Amsterdam, Amsterdam.
- Lehmann, G.
 2004 Reconstructing the social landscape of early Israel, Rural marriage alliances in the Central Hill Country. *Tel Aviv* 31:141-193.
- Le Mière, M., and M. Picon
 1998 Les débuts de la céramique au Proche-Orient. *Paléorient* 24:5-26.
- Lemonnier, P.
 1989 Bark capes, arrowheads and concorde, On social representations of technology. In I. Hodder (ed.), *The meaning of things, Material culture and symbolic expression*, 156-171. HarperCollins, London.
- Le Roy Ladurie, E.
 1977 Motionless history. *Social Science History* 1:115-136.
- Lévi-Strauss, C.
 1973 *Anthropologie structurale deux*. Plon, Paris.
-
- 1983 *The way of the masks [translated from the French by S. Modelski]*. Jonathan Cape, London.
-
- 1984 *Paroles données*. Plon, Paris.
-
- 1991 Maison. In P. Bonte and M. Izard (ed.), *Dictionnaire de l'Ethnologie et de l'Anthropologie*, 434-436. Presses Universitaires de France, Paris.
- Lewis-Williams, D.
 2004 Constructing a cosmos, Architecture, power and domestication at Çatalhöyük. *Journal of Social Archaeology* 4:28-59.

- Lichter, C.
2002 Central Western Anatolia, A key region in the neolithisation of Europe. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC*, 161-169. Ege Yayınları, Istanbul.
- Linden, Van Der, S.
2003 *Leembouw in Dia, Het bouwproces in archaeologisch perspectief*. Unpublished BA dissertation, University of Leiden.
- Lloyd, S.
1956 *Early Anatolia*. Penguin, London.
- Lloyd, S., and J. Mellaart
1962 *Beycesultan volume I, The Chalcolithic and Early Bronze Age levels*. British Institute of Archaeology at Ankara, London.
- 1965 *Beycesultan volume II, Middle Bronze Age architecture and pottery*. British Institute of Archaeology at Ankara, London.
- Lopéz, J., and J. Scott
2000 *Social structure*. Open University Press, Buckingham.
- Lucas, G.M.
2005 *The archaeology of time*. Routledge, London.
- Lutfiyya, A.M.
1966 *Baytın, a Jordanian village, A study of social institutions and social change in a folk community*. Mouton, Den Haag.
- Lyon, J., and J. Taylor
2003 Excavation of the 4040 Area. *Çatalhöyük 2003 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- Macdonald, C. (ed.).
1987 *De la hutte au palais, Sociétés 'à maison' en Asie du Sud-Est insulaire*. Centre National de la Recherche Scientifique, Paris.
- Macqueen, J.G.
1978 Secondary burial at Çatal Hüyük. *NUMEN, International Review for the History of Religions* 25:226-239.
- Magness-Gardiner, B.
1994 Urban-rural relations in Bronze Age Syria, Evidence from Alalah level VII palace archive. In G.M. Schwartz and S.E. Falconer (eds), *Archaeological views from the countryside, Village communities in early complex societies*, 37-47. Smithsonian Institution Press, Washington.
- Maréchal, A.
1985 The riddle of Çatalhöyük. *Hali* 26:6-11.
- Marshall, Y.
2000 Transformations of Nuw-chah-nulth Houses. In R.A. Joyce and S.D. Gillespie (eds), *Beyond kinship, Social and material reproduction in house societies*, 73-102. University of Philadelphia Press, Philadelphia.
- Martin, L.
2001 Hunting, herding, feasting, Animal use at neolithic Çatalhöyük, Turkey. *Archaeology International* 2000/2001:39-42.
- Martin, L., and N. Russell
2000 Trashing rubbish. In I. Hodder (ed.), *Towards reflexive method in archaeology, The example at Çatalhöyük*, 51-69. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Martin, L., N. Russell, and D. Carruthers
2002 Animal remains from the Central Anatolian Neolithic. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC*, 193-216. Ege Yayınları, Istanbul.
- Matthews, R.
1996 Surface scraping and planning. In I. Hodder (ed.), *On the surface, Çatalhöyük 1993-5*, 79-100. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.

-
- 2003 *The archaeology of Mesopotamia, Theories and approaches*. Routledge, London.
- Matthews, W.
 1998 Report on sampling strategies, microstratigraphy, and micromorphology. *Çatalhöyük 1998 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
-
- 1999 Micromorphology archive report. *Çatalhöyük 1999 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
-
- 2005 Micromorphological and microstratigraphic traces of uses and concepts of space. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 355-398. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
-
- in prep Life-cycle and -course of buildings. In I. Hodder (ed.), *Çatalhöyük perspectives, Themes from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Matthews, W., and S. Farid
 1996 Exploring the 1960's surface, The stratigraphy of Çatalhöyük. In I. Hodder (ed.), *On the surface, Çatalhöyük 1993-95*, 271-300. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Matthews, W., C. French, T. Lawrence, and D. Cutler
 1996 Multiple surfaces, The micromorphology. In I. Hodder (ed.), *On the surface, Çatalhöyük 1993-95*, 301-342. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Matthews, W., C. French, T. Lawrence, D. Cutler, and M.K. Jones
 1997 Microstratigraphic traces of site formation processes and human activities. *World Archaeology* 29:281-308.
- Matthews, W., L.-M. Shillito, and M. Almond
 2004 Micromorphology, Investigation of Neolithic social and ecological strategies at seasonal, annual and life-cycle timescales. *Çatalhöyük 2004 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- McHenry, P.G.
 1984 *Adobe and rammed earth buildings*. John Wiley and Sons, New York.
- McGuire, R.H., and D.J. Saita
 1998 Although they have petty captains, they obey them badly, The dialectics of Prehistoric western Pueblo social organization. In D. S. Whitley (ed.), *Reader in anthropological theory, Post-processual and cognitive approaches*, 275-298. Routledge, London.
- McKinnon, S.
 2000 The Tanimbarese *Tavu*, The ideology of growth and the material configurations of houses and hierarchy in an Indonesian society. In R.A. Joyce and S.D. Gillespie (eds), *Beyond kinship, Social and material reproduction in house societies*, 161-176. University of Philadelphia Press, Philadelphia.
- Meijer, D.J.W.
 1990 An archaeological surface survey, Some assumptions and ideas. In S. Eichler, M. Wäfling, and D. Warburton (eds), *Tall al-Hamidiya II, Symposium on the recent excavations in the Upper Khabur region*, 31-46. Universitätsverlag Freiburg, Freiburg (Schweiz).
-
- 2002 The Khafaje Sin tempel sequence, Social division at work? In L. Al-Gailani Werr, H. Martin, A. McMahon, J. Oates, and J. Reade (eds), *Of pots and plans, Papers on the archaeology and history of Mesopotamia and Syria presented to David Oates in honour of his 75th birthday*, 218-226. NABU Publications, London.
- Mellaart, J.
 1954 Preliminary report on a survey of pre-classical remains in southern Turkey. *Anatolian Studies* 4:175-240.
-
- 1961 Early cultures of the South Anatolian Plateau. *Anatolian Studies* 11:159-184.
-

- 1962 Excavations at Çatal Hüyük, First preliminary report, 1961. *Anatolian Studies* 12:41-65.
- 1963 Excavations at Çatal Hüyük, Second preliminary report, 1962. *Anatolian Studies* 13:43-103.
- 1964 Excavations at Çatal Hüyük, Third preliminary report, 1963. *Anatolian Studies* 14:39-119.
- 1965a Çatal Hüyük West. *Anatolian Studies* 15:135-156.
- 1965b Çatal Hüyük, A Neolithic city in Anatolia. *Proceedings of the British Academy* 51:201-213.
- 1966 Excavations at Çatal Hüyük, Fourth preliminary report, 1965. *Anatolian Studies* 16:165-191.
- 1967 *Çatal Hüyük, A Neolithic town in Anatolia*. Thames and Hudson, London.
- 1970 *Excavations at Hacilar*. Edinburgh University Press, Edinburgh.
- 1975 *The Neolithic of the Near East*. Thames and Hudson, London.
- 1978 *The archaeology of ancient Turkey*. The Bodley Head, London.
- 1984 Anatolian kilims, New insights and problems. *Anatolian Studies* 34:87-95.
- 1990 The earliest representations of the Goddess of Anatolia and her entourage. In J. Ragoth (ed.), *Anatolische Kelims*, 27-46. Basel.
- 1991 James Mellaart answers his critics. *Hali* 55:86-7.
- 1993 Descriptions (picturales) d'eruptions recentes du Hasan Dagi par les hommes du Neolithique a Çatal Höyük. *Lave* 42:17-30.
- 1999 Under the volcano. *Cornucopia* 19:76-99.
- 2000 Çatal Hüyük, The 1960s seasons. In R. Matthews (ed.), *Ancient Anatolia. Fifty years work of the British Institute of Archaeology at Ankara*, 35-41. British Institute of Archaeology at Ankara, London.
- Mellaart, J., and A. Murray
1995 *Beycesultan volume III, Late Bronze Age and Phrygian pottery and Middle and Late Bronze Age small objects*. British Institute of Archaeology at Ankara, London.
- Mellaart, J., U. Hirsch, B. Balpınar
1989 *The goddess from Anatolia I-IV*. Eskenazi, Milan.
- Meskel, L.
1998 Twin peaks, The archaeologies of Çatalhöyük. In L. Goodison and C. Morris (eds), *Ancient goddesses, The myths and the evidence*, 46-62. British Museum Press, London.
- 2002 *Private life in New Kingdom Egypt*. Princeton University Press, Princeton and Oxford.
- Metcalfe, P. and R. Huntington
1991 *Celebrations of death, The anthropology of mortuary ritual*. Cambridge University Press, Cambridge.
- Middleton, W.D.
2004 Identifying chemical activity residues on Prehistoric house floors, A Methodology and rationale for multi-elemental characterization of a mild acid extract of anthropogenic sediments. *Archaeometry* 46:47-65.
- Middleton, W.D., T.D. Price, and D.C. Meiggs
2005 Chemical analysis of floor sediments for the identification of anthropogenic activity residues. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 399-414. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.

- Miller, D.
1982 Artefacts as products of human categorisation. In I. Hodder (ed.), *Symbolic and structural archaeology*, 17-25. Cambridge University Press, Cambridge.
- 1987 *Material culture and mass consumption*. Blackwell, Oxford.
- Miller, N.
1998 The macrobotanical evidence for vegetation in the Near East, c. 18000/16000 BC to 4000 BC. *Paléorient* 23:197-207.
- Mithen, S.
1996 *The Prehistory of the mind, A search for the origins of art, religion and science*. Thames and Hudson, London.
- Molist, M.
1998 Espace collectif et espace domestique dans le Néolithique des IXème et VIIIème millénaires B.P. au Nord de la Syrie, Apports du site de Tell Halula (Vallée de l'Euphrate). In M. Fortin and O. Aurenche (eds), *Espace naturel, Espace habité en Syrie du Nord 10e-2e millénaire av. J.C.*, 115-130. Maison de L'Orient Méditerranéen / Canadian Society for Mesopotamian Studies, Québec.
- Molleson, T., and P. Andrews
1996 Trace element analysis of bones and teeth from Çatalhöyük. In I. Hodder (ed.), *On the surface, Çatalhöyük 1993-95*, 271-300. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Molleson, T., P. Andrews, and B. Boz
2005 Reconstruction of the Neolithic people of Çatalhöyük. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 279-300. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Moore, H.L.
1986 *Space, text and gender, An anthropological study of the Marakwet of Kenya*. Cambridge University Press, Cambridge.
- Moore, A.M.T.
2000 The excavation of Abu Hureyra 2. In A.M.T. Moore, G.C. Hillman, and A.J. Legge (eds), *Village on the Euphrates, From foraging to farming at Abu Hureyra*, 189-260. Oxford University Press, Oxford.
- Moore, A.M.T., G.C. Hillman, and A.J. Legge
2000 *Village on the Euphrates, From foraging to farming at Abu Hureyra*. Oxford University Press, Oxford.
- Morris, I.
1991 The archaeology of ancestors, The Saxe / Goldstein hypothesis revisited. *Cambridge Archaeological Journal* 1:147-69.
- Naroll, R.
1962 Floor area and settlement population. *American Antiquity* 27:587-589.
- Nesbitt, M.
2002 When and where did domesticated cereals first occur in Southwest Asia. In R.T.J. Cappers and S. Bottema (eds), *The dawn of farming in the Near East*, 113-132. Ex Oriente, Berlin.
- 2004 Can we identify a centre, a region, or a supra-region for Near Eastern plant domestication? *Neo-Lithics* 2004/01:38-40.
- Netting, R. McC.
1982 Some home truths on household size and wealth. *American Behavioral Scientist* 25: 641-662.
- 1990 Population, permanent agriculture, and politics, Unpacking the evolutionary portmanteau. In S. Upham (ed.), *The evolution of political systems, Sociopolitics in small-scale sedentary societies*, 21-61. Cambridge University Press, Cambridge.
- Newton, M., and P. Kuniholm
1999 Wiggles worth watching, making radiocarbon work, The case of Çatalhöyük. In P. Betancourt, V. Karageorghis, R. Lafflineur, and W.D. Niemeier (eds), *Meletemata, Studies in Aegean archaeology presented to Macolm H. Wiener as he enters his 65th year*, 527-536. Université de Liège, Liège.
- Nordholt, H.G., Schulte

- 1980 The symbolic classification of the Atoni of Timor. In J.J. Fox (ed.), *The flow of life, Essays on eastern Indonesia*, 231-247. Harvard University Press, Cambridge MA.
- Oliver, P. (ed.)
1997 *Encyclopedia of vernacular architecture of the world*. Cambridge University Press, Cambridge.
- Omura, S.
2000 1999 yılı İç Anadolu'da yürütülen yüzey araştırmaları. *Araştırma Sonuçları Toplantısı* 18:83-88.
- Ormerod, H.A.
1913 Prehistoric remains in south-western Asia Minor III. *Annual of the British School at Athens* 19:48-60.
- Ortiz, A.
1969 *The Tewa world, Space, time, being, and becoming in a Pueblo society*. University of Chicago Press, Chicago and London.
- Özbal, R., F. Gerritsen, B. Diebold, E. Healey, N. Aydin, M. Loyet, F. Nardulli, H. Ekstrom, S. Sholts, N. Mekel-Bobrov, and B. Lahn
2004 Tell Kurdu excavations 2001. *Anatolica* 30:37-107.
- Özbaşaran, M.
1998 The heart of a house, The hearth. In M.J. Mellink, G. Arsebük, and W. Schirmer (eds), *Light on top of the black hill, Studies presented to Halet Çambel*, 555-566. Ege Yayınları, Istanbul.
- 1999 Musular, A general assessment on a new Neolithic site in Central Anatolia. In M. Özdoğan and N. Başgelen (eds), *The Neolithic of Turkey*, 147-155. Arkeoloji ve Sanat Yayınları, Istanbul.
- 2000 The Neolithic site of Musular, Central Anatolia. *Anatolica* 26:129-151.
- Özbaşaran, M., and H. Buitenhuis
2002 Proposal for a regional terminology for Central Anatolia. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC*, 67-77. Ege Yayınları, Istanbul.
- Özbek, M.
1993 Aşıklı Höyük Neolitik çağ insanları. *Arkeometri Sonuçları Toplantısı* 8: 201-212.
- 1998 Human skeletal remains from Aşıklı, A Neolithic village near Aksaray, Turkey. In M.J. Mellink, G. Arsebük, and W. Schirmer (eds), *Light on top of the Black Hill, Studies presented to Halet Çambel*, 567-579. Ege Yayınları, Istanbul.
- Özdoğan, A.
1995 Life at Çayönü during the Pre-Pottery Neolithic period. In *Readings in Prehistory, Studies presented to Halet Çambel*, pp. 79-99. Graphis Yayınları, Istanbul.
- 1999 Çayönü. In M. Özdoğan, and N. Başgelen (eds), *The Neolithic of Turkey*, 35-63. Arkeoloji ve Sanat Yayınları, Istanbul.
- Özdoğan, M.
1989 Neolithic cultures of Northwestern Turkey, A general appraisal of the evidence and some considerations. In S. Bökönyi (ed.), *Neolithic of Southeastern Europe and its Near Eastern connections*, 201-215. Instituti Archaeologici Academiae Scientiarum Hungaricae, Budapest.
- 1995 Neolithic in Turkey, The status of research. In *Readings in Prehistory, Studies presented to Halet Çambel*, 41-59. Graphis Yayınları, Istanbul.
- 1997 Anatolia from the last glacial maximum to the Holocene climatic optimum, Cultural formations and the impact of the environmental setting. *Paléorient* 23:25-38.
- 1998 Hoca Çeşme, An early Neolithic Anatolian colony in the Balkans? In P. Anreiter, L. Bartosiewicz, E. Jerem, and W. Meid (eds), *Man and the animal world, Studies in archaeozoology, anthropology and paleolinguistics in memoriam Sandor Bökönyi*, 435-451. Archaeolingua, Budapest.
-

- 1999 Concluding remarks. In M. Özdoğan and N. Başgelen (eds), *The Neolithic of Turkey*, 225-236. Arkeoloji ve Sanat Yayınları, Istanbul.
-
- 2000 The appearance of Early Neolithic cultures in Northwestern Turkey, Some problems. In S. Hiller, and V. Nikolov (eds), *Karanovo III, Beiträge zum Neolithikum in Südosteuropa*, 165-170. Phoibos Verlag, Wien.
-
- 2002 Defining the Neolithic of Central Anatolia. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC*, 253-261. Ege Yayınları, Istanbul.
- Özdoğan, M., and N. Başgelen (eds)
 1999 *The Neolithic of Turkey, The Cradle of Civilization*. Arkeoloji ve Sanat Yayınları, Istanbul.
- Özdoğan, M., and I. Gatsov
 1998 The Aceramic Neolithic period in Western Turkey and in the Aegean. *Anatolica* 24: 209-232.
- Özdoğan, M., and A. Özdoğan
 1989 Çayönü, A conspectus of recent work. *Paléorient* 15: 65-74.
-
- 1998 Building of cult and the cult of building. In M.J. Mellink, G. Arsebük, and W. Schirmer (eds), *Light on top of the black hill, Studies presented to Halet Çambel*, 581-601. Ege Yayınları, Istanbul.
- Özdoğan, M., Y. Mitake, and N.D. Özbaşaran
 1991 An interim report on excavations at Yarımburgaz and Topstepe in Eastern Thrace. *Anatolica* 17:59-121.
- Özgüç, N.
 1973 Haberler- kazılar. Niğde Tepe Bağları Höyüğü kazısı. *Belleten* 38:442-443.
- Özgüç, T.
 1945 Öntarihte Anadolu kronolojisi. *Belleten* 9:341-360.
- Özkan, S.
 2001 Köşk Höyük seals. *Anatolica* 27:15-22.
- Öztan, A.
 2002 Köşk Höyük, Anadolu Arkeolojisine yeni katkılar. *Türkiye Bilimler Akademisi-Arkeolojik Dergisi* 5:55-69.
- Öztan, A., and E. Faydalı
 2003 An Early Chalcolithic building from Köşk Höyük. *Belleten* 67/248:45-75.
- Pallasmaa, J.
 1995 Identity, intimacy and domicile, Notes on the phenomenology of home. In D.N. Benjamin, and D. Stea (eds), *The home, Words, interpretations, meanings, and environments*, 131-147. Ashgate, Aldershot.
- Park, R.E.
 1929 The city as a social laboratory. In T.V. Smith and L. White (eds), *Chicago, An experiment in social science research*, 1-19. Chicago University Press, Chicago.
- Parkinson, W.A. (ed.)
 2002 *The archaeology of tribal societies*. Michigan University, Ann Arbor.
- Paulsen, H.C.
 1762 [1748, translated from German] *Echte berichten van den akkerbouw der oostersche volken ter opheldering van veele schrifuurplaatsen, zoo uit het Oude als Nieuwe Testament, uit de oostersche reisbeschrijvingen verzamelt en uitgegeven*. Le Mair, Leiden.
- Payne, S.
 1972 Can Hasan III, The Anatolian Aceramic and the Greek Neolithic. In E.S. Higgs (ed.) *Papers in economic Prehistory*, 191-194. Cambridge University Press, Cambridge.
-
- 1985 Animal bones from Aşıklı Hüyük. *Anatolian Studies* 35:109-122.
- Pearson, K., and P. Connor
 1967 *The Dorak affair*. Michael Joseph, London.
- Pearson, M.P., and C. Richards

- 1994a Ordering the world, Perceptions of architecture, space and time. In M.P. Pearson and C. Richards (eds), *Architecture and order, Approaches to social space*, 1-37. Routledge, London.
- 1994b Architecture and order, Spatial representation and archaeology. In M.P. Pearson and C. Richards (eds), *Architecture and order, Approaches to social space*, 38-72. Routledge, London.
- Pearson, M.P., and C. Richards (eds)
1994 *Architecture and order, Approaches to social space*. Routledge, London.
- Peltenburg, E., and A. Wasse (eds)
2004 *Neolithic revolution, New perspectives on Southwest Asia in light of recent discoveries on Cyprus*. Oxbow, Oxford.
- Peltenburg, E., S. Colledge, P. Croft, A. Jackson, C. McCartney, and M.A. Murray
2001 Neolithic dispersals from the Levantine Corridor, A mediterranean perspective. *Levant* 33:35-64.
- Pennington, R.
2001 Hunter-gatherer demography. In C. Panter-Brick, R.H. Layton, and P. Rowley-Conwy (eds), *Hunter-gatherers, An interdisciplinary perspective*, 170-204. Cambridge University Press, Cambridge.
- Perkins, D.
1969 Fauna of Çatal Hüyük, Evidence for early cattle domestication in Anatolia. *Science* 64:177-179.
- Perkins, D., and P. Daly
1968 A hunter's village in Neolithic Turkey. *Scientific American* 219:96-106.
- Perlès, C.
2001 *The Early Neolithic in Greece*. Cambridge University Press, Cambridge.
- Peters, E.
1972 Lehmziegelhäuser in der Altinova. *Middle Eastern Technical University - Keban Publications* 3 (1970):173-182.
- 1982 Ländliche bauweisen im Keban-Gebiet. *Middle Eastern Technical University - Keban Publications* 7 (1975-75):217-232.
- Peters, J., and K. Schmidt
2004 Animals in the symbolic world of Pre-Pottery Neolithic Göbekli Tepe, southeastern Turkey, A preliminary assessment. *Anthropozoologica* 39:179-218.
- Pettit, P.
1975 *The concept of structuralism, A critical analysis*. University of California Press, Berkeley and Los Angeles.
- Philip, G.
2001 The Early Bronze I-III Ages. In B. MacDonald, R. Adams, P. Bienkowski (eds), *The archaeology of Jordan*, 163-232. Sheffield Academic Press, Sheffield.
- Plog, S.
1990 Agriculture, sedentism, and environment in the evolution of political systems. In S. Upham (ed.), *The evolution of political systems, Sociopolitics in small-scale sedentary societies*, 177-202. Cambridge University Press, Cambridge.
- Pollard, T., C.A. Shell, and D.R. Twigg
1996 Topographic survey of the Çatalhöyük mounds. In I. Hodder (ed.), *On the surface, Çatalhöyük 1993-95*, 59-72. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Pred, A.
1985 The social becomes the spatial, the spatial becomes the social. Enclosures, social change and the becoming of places in Skane. In D. Gregory and J. Urry (eds), *Social relations and spatial structures*, 337-365. Macmillan, London.
- Preziosi, D.
1979 *Architecture, language and meaning, The origins of the built world and its semiotic organisation*. Mouton, The Hague.
- Price, T.D., and G.M. Feinman (eds)
1995 *Foundations of social inequality*. Plenum Press, New York and London.

- Rapoport, A.
1969 *House form and culture*. Prentice-Hall, New Jersey.
- Redfield, R.
1955 *The little community, Viewpoints for the study of a human whole*. Almqvist and Wiksells Boktryckeri, Uppsala.
- Redman, C.L.
1978 *The emergence of civilization, From early farmers to urban society in the ancient Near East*. Freeman, San Francisco.
- Reese, D.S.
2005 The Çatalhöyük shells. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 123-127. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Regan, R.
2005 Building 44, South Summit Area. *Çatalhöyük 2005 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- Renfrew, C.
1974 Beyond a subsistence economy, The evolution of social organization in Prehistoric Europe. In C.B. Moore (ed.), *Reconstructing complex societies*, 69-95. American Schools of Oriental Research, Cambridge MA.
- 2001 Commodification and institution in group-oriented and individualizing societies. In W.G. Runciman (ed.), *The origin of human social institutions*, 93-117. British Academy, Oxford.
- Renfrew, C., and P. Bahn
1991 *Archaeology, Theories, methods, and practice*. Thames and Hudson, London.
- Renfrew, C., J.E. Dixon, and J.R. Cann
1968 Further analysis of Near Eastern obsidians. *Proceedings of the Prehistoric Society* 34:319-331.
- Renfrew, J.M.
1968 A note on the Neolithic grain from Can Hasan. *Anatolian Studies* 18:55-56.
- Keybrouck, D. Van
2000 *From primitives to primates, A history of ethnographic and primatological analogies in the study of Prehistory*. Unpublished PhD Dissertation, University of Leiden.
- Richards, C.
1996 Life is not that simple, Architecture and cosmology in the Balinese house. In T. Darvill and J. Thomas (eds), *Neolithic houses in Northwestern Europe and beyond*, 171-184. Oxbow, Oxford.
- Richards, M.P., J.A. Pearson, T. Molleson, N. Russell, and L. Martin
2003 Stable isotope evidence of diet at Neolithic Çatalhöyük, Turkey. *Journal of Archaeological Science* 30:67-76.
- Rindos, D.
1984 *The origins of agriculture, An evolutionary perspective*. Academic Press, Orlando.
- Ritchey, T.
1996 Note on the building complexity. In I. Hodder (ed.), *On the surface, Çatalhöyük 1993-95*, 7-18. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Roberts, B.K.
1996 *Landscapes of settlement, Prehistory to the present*. Routledge, London.
- Roberts, N.
1983 Age, palaeoenvironments, and climatic significance of Late Pleistocene Konya Lake, Turkey. *Quaternary Research* 19:154-171.
- 1990 Human-induced landscape change in south and southwest Turkey during the Later Holocene. In G. Entjes-Nieborg, S. Bottema, and W. Van Zeist (eds), *Man's role in the shaping of the Eastern Mediterranean landscape*, 53-67. A.A. Balkema, Rotterdam.
- 2002 Did Prehistoric landscape management retard the Post-Glacial spread of woodland in Southwest Asia? *Antiquity* 76:1002-1010.
- Roberts, N., and H.E. Wright

- 1993 Vegetational, lake-level, and climatic history of the Near East and Southwest Asia. In H.E. Wright, J.E. Kutzbach, T. Webb, W.F. Ruddiman, F.A. Street-Perrott, and P.J. Bartlein (eds), *Global climates since the last glacial maximum*, 194-220. University of Minneapolis Press, Minneapolis.
- Roberts, N., P. Boyer, and R. Parish
1996 Preliminary results of geoarchaeological investigations at Çatalhöyük. In I. Hodder (ed.), *On the surface, Çatalhöyük 1993-95*, 19-40. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Roberts, N., S. Black, P. Boyer, W.J. Eastwood, H.I. Griffiths, H.F. Lamb, M.J. Leng, R. Parish, J.M. Reed, D. Twigg, H. Yiğitbaşıoğlu
1999 Chronology and stratigraphy of Late Quaternary sediments in the Konya Basin, Turkey, Results from the KOPAL Project. *Quaternary Science Reviews* 18:611-630.
- Roberts, N., P. Boyer, and J. Merrick
in prep The KOPAL research programme at Çatalhöyük (1996-2001). In I. Hodder (ed.), *Excavating Çatalhöyük, South, North and KOPAL Area reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Robin, C.
2003 New directions in Classic Maya household archaeology. *Journal of Archaeological Research* 11:307-336.
- Rollefson, G.O.
1987 Local and external relations in the Levantine PPN period, 'Ain Ghazal (Jordan) as a regional centre. In A. Hadidi (ed.), *Studies in the History and Archaeology of Jordan* 3, 103-107. Department of Antiquities of Jordan / Routledge and Kegan Paul, Amman.
- Rollefson, G.O., and H.G.K. Gebel
2004 Towards new frameworks, Supra-regional concepts in Near Eastern Neolithization [with contributions by E. Asouti, O. Bar-Yosef, M. Benz, H.G.K. Gebel, D.O. Henry, B.D. Hermansen, M. Nesbitt, M. Özdoğan, E. Peltenburg, J. Peters, G.O. Rollefson, A.H. Simmons, D. Stordeur, and G. Willcox]. *Neo-Lithics* 2004/1:21-52.
- Roodenberg, J.J.
1999 Ilıpınar, An early farming village in the Iznik Lake basin. In M. Özdoğan and N. Başgelen (eds), *The Neolithic of Turkey*, 193-202. Arkeoloji ve Sanat Yayınları, Istanbul.
- Roodenberg, J.J., and F. Gérard
1996 The southwest flank of Ilıpınar, The 1994 and 1995 seasons. *Anatolica* 22:33-48.
- Roodenberg, J.J., and L. Thissen (eds)
2001 *The Ilıpınar excavations II*. Nederlands Historisch-Archaeologisch Instituut te Istanbul, Istanbul.
- Roodenberg, J.J., A. Van As, L. Jacobs, and M.H. Wijnen
2003 Early settlement in the plain of Yenişehir (NW Anatolia), The basal occupation of Menteşe. *Anatolica* 29:17-59.
- Rosen, A.M.
2005 Phytolith indicators of plant and land use at Çatalhöyük. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 203-212. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Rosenberg, M.
1994 Pattern, process and hierarchy in the evolution of culture. *Journal of Anthropological Archaeology* 13:307-340.
-
- 1999 Hallan Çemi. In M. Özdoğan, and N. Başgelen (eds), *The Neolithic of Turkey*, 25-33. Arkeoloji ve Sanat Yayınları, Istanbul.
-
- 2003 The strength of numbers, From villages to towns in the Aceramic Neolithic of Southwestern Asia. In M. Özdoğan, H. Hauptmann, and N. Başgelen (eds), *Köyden kente, Yakındoğu'da ilk yerleşimler*, 91-101. Arkeoloji ve Sanat Yayınları, Istanbul.
- Rosenberg, M., and R.W. Redding

- 2000 Hallan Çemi and early village organization in Eastern Anatolia. In I. Kuijt (ed.), *Life in Neolithic farming communities, Social organization, identity, and differentiation*, 39-61. Kluwer Academic Press, New York.
- Rossignol-Strick, M.
1998 Paléoclimat de la Méditerranée Orientale et de l'Asie du Sud-Ouest de 15000 à 6000 BP. *Paléorient* 23:175-186.
- Rothman, M.S.
2002 *Tepe Gawra, The evolution of a small Prehistoric center in Northern Iraq*. University of Pennsylvania Press, Philadelphia.
- Rountree, K.
2001 The past is a foreigners' country, Goddess feminists, archaeologists, and the appropriation of Prehistory. *Journal of Contemporary Religion* 16:5-27.
- Rowley-Conwy, P.
2001 Time, change and the archaeology of hunter-gatherers, How original is the 'original affluent society'? In C. Panter-Brick, R.H. Layton, and P. Rowley-Conwy (eds), *Hunter-gatherers, An interdisciplinary perspective*, 39-72. Cambridge University Press, Cambridge.
- Roymans, N.
1995 The cultural biography of urnfields and the long-term history of a mythical landscape. *Archaeological Dialogues* 2:2-38.
- Runciman, W.G.
2001 From nature to culture, From culture to society. In W.G. Runciman (ed.), *The origin of human social institutions*, 235-254. British Academy, Oxford.
- Russell, N.
in prep Çatalhöyük worked bone. In I. Hodder (ed.), *Changing materialities at Çatalhöyük, Reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Russell, N., and B.S. Düring
in prep Worth is the lamb, A double burial at Neolithic Çatalhöyük.
- Russell, N., and L. Martin
2005 The Çatalhöyük mammal remains. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 33-98. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Russell, N., and K.J. McGowan
2003 Dance of the cranes, Crane symbolism at Çatalhöyük and beyond. *Antiquity*:445-455.
- 2005 Çatalhöyük bird bones. In I. Hodder (ed.), *Inhabiting Çatalhöyük, Reports from the 1995-1999 seasons*, 99-110. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Russell, N., and S. Meece
in prep Animal representation and animal remains at Çatalhöyük. In I. Hodder (ed.), *Çatalhöyük perspectives, Themes from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Russell, N., K. Pawlowska, and L. Martin
2003 Çatalhöyük animal bone report. *Çatalhöyük 2003 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- Ryder, M.L.
1965 Report of textiles from Çatal Hüyük. *Anatolian Studies* 15:175-176.
- Saitta, D.J., and A.S. Keene
1990 Politics and surplus flow in Prehistoric communal societies. In S. Upham (ed.), *The evolution of political systems, Sociopolitics in small-scale sedentary societies*, 203-224. Cambridge University Press, Cambridge.
- Sanders, D.
1990 Behavioral conventions and archaeology, Methods for the analysis of ancient architecture. In S. Kent (ed.), *Domestic architecture and the use of space*, 43-72. Cambridge University Press, Cambridge.

- Schiffer, M.B.
1987 *Formation processes of the archaeological record*. University of New Mexico Press, Albuquerque.
- Schirmer, W.
1983 Drei Bauten des Çayönü Tepesi. In R.M. Boehmer, and H. Hauptmann (eds), *Beiträge zur Altertumskunde Kleinasien, Festschrift für Kurt Bittel*, 463-476. Philipp Von Zabern, Mainz am Rhein.
- Schloen, D.J.
2001 *The house of the father as fact and symbol, Patrimonialism in Ugarit and the ancient Near East*. Eisenbrauns, Winona Lake.
- Schmidt, K.
1998 Frühneolithische Tempel, Ein Forschungsbericht zum präkeramischen Neolithikum Obermesopotamiens. *Mitteilungen der Deutschen Orientgesellschaft* 130:17-49.
- 2000 Zuerst kam der Tempel, dann die Stadt, Vorläufiger Bericht zu den Grabungen am Göbekli Tepe und am Gürcütepe 1995-1999. *Istanbuler Mitteilungen* 50:5-41.
- 2003 The 2002 excavations at Göbekli Tepe (Southeastern Turkey), Impressions from an enigmatic site. *Neo-Lithics* 2003/1:8-13.
- Schoop, U.-D.
2002 Frühneolithikum im südwestanatolischen Seengebiet? Eine kritische Betrachtung. In R. Aslan, S. Blum, G. Kastl, F. Schweizer, and D. Thumm (eds), *Mauerschau, Festschrift für Manfred Korfmann*, 421-436. Bernhard Albert Greiner, Remshalden-Grünbach.
- Schwartz, G.M., and S.E. Falconer
1994 Rural approaches to social complexity. In G.M. Schwartz and S.E. Falconer (eds), *Archaeological views from the countryside, Village communities in early complex societies*, 1-9. Smithsonian Institution Press, Washington.
- Seip, L.P.
1999 Transformations of meaning, The life history of a Nuxalk mask. *World Archaeology* 31:272-287.
- Service, E.R.
1962 *Primitive social organization, An evolutionary perspective*. Random House, New York.
- 1979 *The hunters*. Prentice Hall, Santa Barbara.
- Shanks, M., and C. Tilley
1987 Social values, social constraints and material culture, The design of contemporary beer cans. In M. Shanks and C. Tilley (eds), *Re-constructing archaeology, theory and practice*, 172-240. Cambridge University Press, Cambridge.
- 1989 Archaeology into the 1990s. *Norwegian Archaeological Review* 22:1-54.
- Shanks, M., and I. Hodder
1995 Processual, postprocessual and interpretive archaeologies. In I. Hodder and M. Shanks (eds), *Interpreting archaeology, Finding meaning in the past*, 3-29. Routledge, London.
- Shennan, S.
2002 *Genes, memes and human history, Darwinian archaeology and cultural evolution*. Thames and Hudson, London.
- Sherratt, A.
1997 Climatic cycles and behavioural revolutions, The emergence of modern humans and the beginning of farming. *Antiquity* 71:271-87.
- Silistrelli, U.
1988 Köşk Höyüğü. *Kazı Sonuçları Toplantısı* 10:61-65.
- Simmons, A.
2000 Villages on the edge, Regional settlement change and the end of the Levantine Pre-Pottery Neolithic. In I. Kuijt (ed.), *Life in Neolithic farming communities, Social organization, identity, and differentiation*, 211-230. Kluwer Academic Press, New York.
- Smith, M.L.

- 2003 Introduction, The social construction of ancient cities. In M.L. Smith (ed.), *The social construction of ancient cities*, 1-36. Smithsonian Books, Washington and London.
- Solecki, R.S.
1965 An archaeological reconnaissance in the Beyşehir Suğla area of Southwestern Turkey. *Türk Arkeoloji Dergisi* 13:129-148.
- Sørum, A.
2003 Village, houses and identity in Pipikoro. In S. Sparkes and S. Howell (eds), *The house in Southeast Asia, A changing social, economic and political domain*, 83-94. RoutledgeCurzon, London.
- Sparkes, S., and Howell, S. (eds)
2003 *The house in Southeast Asia, A changing social, economic and political domain*. Routledge, London.
- Spencer-Wood, S.M.
1999 The world their household, Changing meanings of the domestic sphere in the nineteenth century. In P.M. Allison (ed.), *The archaeology of household activities*, 162-189. Routledge, London.
- Stea, D., and M. Turan
1993 *Placemaking, Production of built environment in two cultures*. Avebury, Aldershot.
- Steadman, S.R.
2000 Spatial patterning and social complexity on Prehistoric Anatolian *tell* sites, Models for mounds. *Journal of Anthropological Archaeology* 19:164-199.
- Stein, G.
1994 Economy, ritual, and power in 'Ubaid Mesopotamia. In G. Stein and M.S. Rothman (eds), *Chiefdoms and early states in the Near East, The organizational dynamics of complexity*, 35-46. Prehistory Press, Madison.
- Stevanovic, M.
1997 The age of clay, The social dynamics of house destruction. *Journal of Anthropological Archaeology* 16:334-395.
- 1999 Report on experimental archaeology at Çatalhöyük. *Çatalhöyük 1999 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- Stevanovic, M., and R. Tringham
1998 The Bach 1 Area. *Çatalhöyük 1998 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- 1999 The excavation of the BACH 1 Area. *Çatalhöyük 1999 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- 2001 The excavation of the BACH 1 Area, 2001. *Çatalhöyük 2001 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- 2003 The excavation of the BACH 1 Area 2003. *Çatalhöyük 2003 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- Stone, E.T.
1981 Texts, architecture and ethnographic analogy, Patterns of residence in Old Babylonian Nippur. *Iraq* 43:19-33.
- Stordeur, D., and F. Abbès
2002 Du PPNA au PPNB, Mise en lumière d'une phase de transition à Jerf el Ahmar (Syrie). *Bulletin de la Société Préhistorique Française* 99:563-595.
- Tait, D.
1961 *The Konkomba of Northern Ghana [edited from his published and unpublished writings by J. Goody]*. International African Institute / University of Ghana / Oxford University Press, London.
- Talalay, L.E.
2004 Heady business, Skulls, heads, and decapitation in Neolithic Anatolia. *Journal of Mediterranean Archaeology* 17:139-163.
- Tanner, A.

- 1991 Spatial organization in social formation and symbolic action, Fijian and Canadian examples. In O. Grøn, E. Engelstad and I. Lindblom (eds), *Social space, Human spatial behaviour in dwellings and settlements*, 21-39. Odense University Press, Odense.
- Testart, A.
1982 The significance of food storage among hunter-gatherers, Residence patterns, population densities, and social inequalities. *Current Anthropology* 23:523-537.
- Thissen, L.
2000 *Early village communities in Anatolia and the Balkans, 6500 - 5500 cal BC, Studies in chronology and culture contact*. Unpublished PhD dissertation, Leiden University.
- 2002a Appendix I, The CANeW 14C databases, Anatolia 10,000-5000 cal BC. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC*, 299-337. Ege Yayınları, Istanbul.
- 2002b Time trajectories for the Neolithic of Central Anatolia. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC*, 13-26. Ege Yayınları, Istanbul.
- Thomas, J.
1993 The politics of vision and archaeologies of landscape. In B. Bender (ed.), *Landscape politics and perspectives*, 19-48. Berg, Oxford.
- 1999 Culture and identity. In G. Barker (ed.), *Companion encyclopedia of archaeology*, 431-469. Routledge, London.
- Thomson, W.M.
1859 *The land and the book, or biblical illustrations drawn from the manners and customs, the scenes and scenery of the Holy Land*, London.
- Tilley, C.
1989 Excavation as theatre. *Antiquity* 63:275-280.
- 1991 *Material culture and text, The art of ambiguity*. Routledge, London.
- 1994 *A phenomenology of landscape, The perspective of experience*. Arnold, London.
- 1996 *An ethnography of the Neolithic, Early Prehistoric societies in southern Scandinavia*. Cambridge University Press, Cambridge.
- 1999a The metaphorical transformations of Wala canoes. In C. Tilley (ed.), *Metaphor and material culture*, 102-132. Blackwell, Oxford.
- 1999b *Metaphor and material culture*. Blackwell, Oxford.
- Tobler, A.J.
1950 *Excavations at Tepe Gawra II*. University of Pennsylvania Press, Philadelphia.
- Tönnies, F.
1912 [1887] *Gemeinschaft und Gesellschaft, Grundbegriffe der reinen Soziologie [zweites erheblich veränderte und vermehrte Auflage]*. Karl Curtius, Berlin.
- Todd, I.A.
1966 Aşıklı Höyük, A Protoneolithic site in Central Anatolia. *Anatolian Studies* 16:139-163.
- 1968 The dating of Aşıklı Höyük in Central Anatolia. *American Journal of Archaeology* 12:157-158.
- 1976 *Çatal Hüyük in perspective*. Cummings Publishing, Menlo Park.
- 1980 *The Prehistory of Central Anatolia I, The Neolithic period*. Paul Åström Förlag, Göteborg.
- Trankell, I.-B.

- 2003 House and moral community among the Tai Yong in Northern Thailand. In S. Sparkes and S. Howell (eds), *The house in Southeast Asia, A changing social, economic and political domain*, 133-149. RoutledgeCurzon, London.
- Trigger, B.G.
1989 *A history of archaeological thought*. Cambridge University Press, Cambridge.
- 1998 *Sociocultural evolution, New perspectives on the past*. Blackwell, Oxford.
- Tringham, R.
1995 Archaeological houses, households, housework, and the home. In D.N. Benjamin and D. Stea (eds), *The home, Words, interpretations, meanings, and environments*, 79-107. Ashgate, Aldershot.
- 2000 The continuous house, A view from the distant past. In R.A. Joyce and S.D. Gillespie (eds), *Beyond kinship, Social and material reproduction in house societies*, 115-134. University of Philadelphia Press, Philadelphia.
- Tringham, R., and M. Stevanovic
2000 Different excavation styles create different windows into Çatalhöyük. In I. Hodder (ed.), *Towards reflexive method in archaeology, The example at Çatalhöyük*, 111-118. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Türkcan, A.
2003 Stamp seals and clay figures. *Çatalhöyük 2003 Season Archive Report* at: http://catal.arch.cam.ac.uk/catal/archive_reps.html.
- in prep Some remarks on Çatalhöyük stamp seals. In I. Hodder (ed.), *Changing materialities at Çatalhöyük, Reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Tung, B.
in prep A preliminary investigation of mud brick in Çatalhöyük. In I. Hodder (ed.), *Changing materialities at Çatalhöyük, Reports from the 1995-1999 seasons*. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Turner, V.W.
1969 *The ritual process, Structure and antistructure*. Aldine, Chicago.
- Ülkekel, C.
1999 *An 8,200 year old map, The town plan of Çatalhöyük*. Dönence, Istanbul.
- Umurtak, G.
2000 A building type of the Burdur region from the Neolithic period. *Belleten* 64(241): 683-716.
- Urbín-Choffray, T.
1987 Triade divine, Prémisses à Çatal Hüyük au VIIe millénaire. *Hethitica* 7:255-266.
- Van Dyke, R.M.
2003 Memory and the construction of Chacoan society. In R.M. Van Dyke and S.E. Alcock (eds), *Archaeologies of memory*, 180-200. Blackwell, Oxford.
- Velde, P. Van De
1992 Ian Hodder's 'The domestication of Europe', A comment. *Helinium* 32:245-250.
- Vellinga, M.
1999 Merits and limits of the biographic approach [reply to 'To build and to abandon' by Gerritsen]. *Archaeological Dialogues* 5:98-101.
- Verhoeven, M.
1999 *An archaeological ethnography of a Neolithic community, Space, place and social relations in the burnt village at Tell Sabi Abyad, Syria*. Nederlands Historisch-Archaeologisch Instituut te Istanbul, Istanbul.
- 2000a The excavations, Stratigraphy and architecture. In M. Verhoeven and P.M.M.G. Akkermans (eds), *Tell Sabi Abyad II, The Pre-Pottery Neolithic B settlement*, 3-49. Nederlands Historisch-Archaeologisch Instituut te Istanbul, Istanbul.
- 2000b Death, fire and abandonment, Ritual practice at Neolithic Tell Sabi Abyad, Syria. *Archaeological Dialogues* 7:46-83.

-
- 2002a Ritual and ideology in the Pre-Pottery Neolithic B of the Levant and Southeast Anatolia. *Cambridge Archaeological Journal* 12:233-258.
-
- 2002b Transformations of society, The changing role of ritual and symbolism in the PPNB and the PN in the Levant, Syria and South-East Anatolia. *Paléorient* 28:5-14.
-
- 2002c Ritual and its investigation in Prehistory. In B.D. Hermansen, H.G. Gebel, and C.Hoffmann Jensen (eds), *Magic practices and ritual in the Near Eastern Neolithic*, 5-47. Ex Oriente, Berlin.
-
- 2004 Beyond boundaries, Nature, culture and a holistic approach to domestication in the Levant. *Journal of World Prehistory* 18:179-282.
-
- 2005 Ethnoarchaeology, analogy, and ancient society. In S. Pollock and R. Bernbeck (eds), *Archaeologies of the Middle East, Critical perspectives*, 251-270. Blackwell, Oxford.
- Vita-Finzi, C., and E.S. Higgs
 1970 Prehistoric economy in the Mount Carmel area of Palestine, Site cachment analysis. *Proceedings of the Prehistoric Society* 36:1-37.
- Vogelsang-Eastwood, G.M.
 1988 A re-examination of the fibres from the Çatal Hüyük textiles. *Oriental Carpet and Textile Studies* 3:15-19.
-
- 1993 One of the oldest textiles in the world? The Çayönü textiles. *Archaeological Textiles Newsletter* 16:4-7.
- Voigt, M.M.
 2000 Çatal Hüyük in context, Ritual at Early Neolithic sites in Central and Eastern Turkey. In I. Kuijt (ed.), *Life in Neolithic farming communities, Social organization, identity, and differentiation*, 253-293. Kluwer Academic Press, New York.
- Vryonis, S.
 1991 Byzantine Constantinople and Ottoman Istanbul, Evolution in a millennial iconography. In I.A. Bierman, R.A. Abou-el-Haj, and D. Preziosi (eds), *The Ottoman city and its parts, Urban structure and social order*, 13-52, Aristide D. Caratzas Publications, New Rochelle.
- Wagner, F., B. Aaby, and H. Visscher
 2002 Rapid atmospheric CO₂ changes associated with the 8,200-years-B.P. cooling event. *Proceedings of The National Academy of Sciences* 99:12011-12014.
- Waterson, R.
 1990 *The living house, An anthropology of architecture in South-East Asia*. Oxford University Press, Singapore.
-
- 1995 Houses and hierarchies in island Southeast Asia. In J. Carsten and S. Hugh-Jones (eds), *About the house, Lévi-Strauss and beyond*, 47-68. Cambridge University Press, Cambridge.
-
- 2000 House, place and memory in Tana Toraja (Indonesia). In R.A. Joyce and S.D. Gillespie (eds), *Beyond kinship, Social and material reproduction in house societies*, 177-188. University of Philadelphia Press, Philadelphia.
-
- 2003 The immortality of the house in Tana Toraja. In S. Sparkes and S. Howell (eds), *The house in Southeast Asia, A changing social, economic and political domain*, 34-52. RoutledgeCurzon, London.
- Watkins, T.
 1996 Excavations at Pınarbaşı, The early stages. In I. Hodder (ed.), *On the surface, Çatalhöyük 1993-95*, 47-58. McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
-
- 2001 Re-thinking the Neolithic revolution and its consequences. In C. Breniquet and C. Kepinski (eds), *Études Mésopotamiennes, Recueil de textes offert à Jean-Louis Huot*, 489-507. Centre National de la Recherche Scientifique, Paris.

-
- 2004 Building houses, framing concepts, constructing worlds. *Paléorient* 30:5-24.
- Watson, P.J.
1980 The theory and practice of ethnoarchaeology with special reference to the Near East. *Paléorient* 6:55-64.
-
- 1995 Explaining the transition to agriculture. In T.D. Price and A.B. Gebauer (eds), *Last hunters, First farmers, New perspectives on the Prehistoric transition to agriculture*, 21-37. School of American Research, Santa Fe.
- Weber, M.
1972 [1921] *Wirtschaft und Gesellschaft, Grundriss der verstehende Soziologie. [Fünfte revidierte Auflage besorgt von J. Winckelmann]*. J.C.B. Mohr (Paul Siebeck), Tübingen.
- Weiss, H. and R.S. Bradley
2001 Archaeology, What drives societal collapse? *Science* 291/5504:609-610.
- Wendrich, W.
in prep Specialist report on the Çatalhöyük basketry. In I. Hodder (ed.), *Changing materialities at Çatalhöyük, Reports from the 1995-1999 seasons*, McDonald Institute for Archaeological Research / British Institute of Archaeology at Ankara, Cambridge.
- Wendrich, W., and G. Van Der Kooij (eds)
2002 *Moving matters, Ethnoarchaeology in the Near East*. Centrum Niet Westerse Studies, Leiden.
- Wheatley, D., and M. Gillings
2002 *Spatial technology and archaeology, The archaeological applications of GIS*. Taylor and Francis, London and New York.
- Whittle, A.
1996 *Europe in the Neolithic, The creation of new worlds*. Cambridge University Press, Cambridge.
- Willcox, G.H.
1979 Can Hasan III charcoals (1978 study season). *Anatolian Studies* 29:9-10.
- Wilk, R.R., and W.L. Rathje
1982 Household archaeology. *American Behavioral Scientist* 25:617-639.
- Wilson, P.J.
1988 *The domestication of the human species*. Yale University Press, New York.
- Winter, M.C.
1976 Excavating a shallow community by random sampling quadrants. In K.V. Flannery (ed.), *The Early Mesoamerican village*, 62-67. Academic Press, Orlando.
- Wirth, E.
2000 *Die orientalische Stadt im islamischen Vorderasien und Nordafrika, Städtische Bausubstanz und räumliche Ordnung, Wirtschaftsleben und soziale Organisation*. Philipp von Zabern, Mainz.
- Wright, G.R.H.
1985 *Ancient building in South Syria and Palestine*. Brill, Leiden.
- Wobst, H.M.
1974 Boundary conditions for Palaeolithic social systems, A simulation approach. *American Antiquity* 39:147-178.
-
- 1976 Locational relationships in Palaeolithic society. *Journal of Human Evolution* 5:49-58.
- Woldring, H.
2002 Climate change and the onset of sedentism in Cappadocia. In F. Gérard and L. Thissen (eds), *The Neolithic of Central Anatolia, Internal developments and external relations during the 9th - 6th millennia cal. BC*, 59-66. Ege Yayınları, Istanbul.
- Woldring, H., and S. Bottema
2001 The vegetation history of East-Central Anatolia in relation to archaeology, The Eski Acıgöl pollen evidence compared with the Near Eastern environment. *Palaeohistoria* 43/44:1-34.
- Wylie, A.
1982 An analogy by any other name is just as analogical, A commentary on the Gould - Watson dialogue. *Journal of Anthropological Archaeology* 1:382-401.
- Wulf, H.E.

- 1966 *The traditional crafts of Persia, Their development, technology, and influence on eastern and western civilizations*. Massachusetts Institute of Technology Press, Cambridge MA.
- Wunn, I.
2001 *Götter, Mütter, Ahnenkult, Religionsentwicklung in der Jungsteinzeit*. Verlag Marie Leidorf, Rahden.
- Yaeger, J., and M.A. Canuto
2000 Introducing an archaeology of communities. In M.A. Canuto and J. Yaeger (eds), *The archaeology of communities, A new world perspective*, 1-15. Routledge, London.
- Yakar, J.
1991 *Prehistoric Anatolia, The Neolithic transformation and the Early Chalcolithic period*. Tel Aviv University Press, Tel Aviv.
- 2000 *Ethnoarchaeology of Anatolia, rural socio-economy in the Bronze and Iron Ages*. Tel Aviv University Press, Tel Aviv.
- Yarrow, T.
2003 Artefactual persons, The relational capacities of persons and things in the practice of excavation. *Norwegian Archaeological Review* 36:65-73.
- Young, T.C., and L.D. Levine
1974 *Excavations of the Godin project, Second progress report*. Royal Ontario Museum, Toronto.
- Zeist, W., Van, and S. Bottema
1991 *Late Quarternary vegetation of the Near East*. Ludwig Reichert Verlag, Wiesbaden.
- Zeist, W., Van, and H. Buitenhuis
1983 A palaeobotanical study of Neolithic Erbaba, Turkey. *Anatolica* 10:47-89.
- Zeist, W., Van, and G.J. De Roller
1995 Plant remains from Aşıklı Höyük, A Pre-Pottery Neolithic site in Central Anatolia. *Vegetation History and Archaeobotany* 4:179-185.

SAMENVATTING

GEBOUWDE GEMEENSCHAPPEN, NEDERZETTINGEN MET GECLUSTERDE BUURTSCHAPPEN VAN HET CENTRAAL ANATOLISCHE NEOLITHICUM, CA. 8500 – 5500 VOOR CHRISTUS

Deze studie handelt over een groep nederzettingen die te dateren is tot het Neolithicum van Centraal Anatolië, tussen ongeveer 8500 en 5500 voor Christus. Kenmerkend voor deze nederzettingen is dat de woongebouwen zijn gegroepeerd in clusters van 30 tot 60 gebouwen. In deze buurtschappen stonden de gebouwen zo dicht tegen elkaar aan dat er geen ruimte was voor straten. Tal van aanwijzingen duiden erop dat de structuren via een trapgat in het platte dak werden betreden met behulp van een ladder, waarbij gebouwen die centraal gelegen waren alleen toegankelijk waren via de daken van de omliggende huizen. Deze ‘geclusterde buurtschappen’ werden bereikt via een aangrenzende open ruimte, eveneens door middel van een ladder. Transport en communicatie vonden via het dakniveau plaats.

Deze vorm van ruimtelijke organisatie van de nederzettingen in het Neolithicum van Centraal Anatolië, die niet in de omliggende regio's is aangetroffen, roept de vraag op waarom deze nederzettingenvorm werd geprefereerd. In het bijzonder is hierbij relevant een reconstructie van de structuur van de samenlevingen in het Neolithicum van Centraal Anatolië en hoe die verband zou kunnen houden met de ruimtelijke organisatie van de nederzettingen. Andere aspecten die meegenomen dienen te worden, zijn de grote mate van continuïteit in herbouwingen van huizen en de vraag hoe het mogelijk was dat sommige van deze nederzettingen konden uitgroeien tot een aanzienlijke omvang, terwijl ze geïsoleerd in het landschap lagen.

Hoofdstuk 1

De regio van Centraal Anatolië is een hoogvlakte op het schiereiland van Klein-Azië, die een grote diversiteit aan landschappen kent. Dit gebied is een marginale zone als het gaat om de op regen gebaseerde landbouw. Reconstructies van het klimaat en de vegetatie gedurende het Neolithicum wijzen erop dat de condities in die periode niet wezenlijk verschilden van de huidige.

Het archeologisch onderzoek in dit gebied kwam eigenlijk pas goed op gang in de jaren zestig van de vorige eeuw. Van belang hierbij waren de opgravingen van Mellaart te Çatalhöyük en die van French op de Canhasan sites. Na een periode van betrekkelijk weinig onderzoek, zijn er sinds de jaren negentig van de vorige eeuw weer veel projecten opgezet in Centraal Anatolië, waarbij met name de opgravingen te Aşıklı Höyük en de hernieuwde opgravingen te Çatalhöyük van groot belang zijn. Gedurende de laatste decennia is het meer en meer duidelijk geworden dat het Neolithicum in Centraal Anatolië een geheel eigen dynamiek en karakter had, zoals blijkt uit de vuursteen- en obsidiaanindustrieën, de grafgebruiken en de unieke nederzettingen- en huisvormen.

In de Centraal-Anatolische prehistorie onderscheidt men in het tijdvak tussen 8500 en 5500 voor Christus de volgende perioden. Allereerst het Aceramisch Neolithicum, te dateren tussen 8500 en 7000. De belangrijkste sites in het kader van deze studie zijn daarbij Aşıklı Höyük en Canhasan III. In het hierop volgende Ceramisch Neolithicum, dat van 7000 tot 6000 voor Christus duurt, is de belangrijkste site Çatalhöyük, hoewel ook Er Baba aan bod komt. Tenslotte volgt het Vroeg Chalcolithicum, tussen 6000 en 5500 voor Christus en hiervan is Canhasan I de enige site die relevant is voor deze studie. Na het Vroeg Chalcolithicum veranderen de nederzettingenvormen in Centraal Anatolië en worden er geen geclusterde buurtschappen meer aangetroffen.

Hoofdstuk 2

Één van de centrale thema's van de archeologie is de relatie tussen materiële cultuur en menselijk gedrag. Sinds de jaren tachtig van de vorige eeuw is er naast de studie van de functionele en technologische aspecten van materiële cultuur steeds meer aandacht voor de manier waarop de materiële cultuur van invloed kan zijn op het menselijk gedrag. Drie aspecten zijn hierbij van belang. Ten eerste kunnen voorwerpen een symbolische betekenis hebben. Ten tweede kunnen

objecten op meer associatieve wijze betekenisvol zijn. Ten derde kunnen objecten en structuren door hun materiële kenmerken bepaalde typen gedragingen mogelijk maken of juist bemoeilijken. Voor deze studie is in het bijzonder dit derde aspect van belang: de vorm van gebouwen en nederzettingen beïnvloedt het gebruik daarvan. Het feitelijke gebruik dat mensen maken van specifieke ruimtelijke configuraties is echter mede bepaald door culturele factoren en daarom is het essentieel dat dit gebruik met behulp van contextgegevens onderzocht wordt.

In deze studie zijn de nederzettingen op drie verschillende wijzen onderzocht. Ten eerste is de ruimtelijke configuratie van de nederzettingen bestudeerd met behulp van de zogenaamde ‘space syntax’ methode, waarmee ruimtelijke relaties op mathematische en grafische wijze kunnen worden geanalyseerd. Ten tweede is er een contextuele analyse uitgevoerd, waarbij de verspreiding van sporen over de verschillende ruimtes van de nederzettingen, de gegevens over de omvang van ruimtes en het type afwerking van vloeren en muren, worden gebruikt om te komen tot een interpretatie van het gebruik en de status van de verschillende ruimtes. Voor dit deel van de studie werd gebruik gemaakt van gedigitaliseerde plattegronden en gegevensbankbestanden die worden gecombineerd in verspreidingskaarten. Ten derde is de diachrone component van gebouwen bestudeerd te Aşıklı Höyük en Çatalhöyük. Door de ontwikkeling van gebouwen gedurende een serie van herbouwingen in kaart te brengen, is het mogelijk te begrijpen op welke wijze de tijdsdimensie van betekenis was voor prehistorische samenlevingen.

Met deze drie benaderingen zijn de nederzettingen van Centraal Anatolië onderzocht op hun sociale dimensies. Op de volgende sociale instituties is daarbij in het bijzonder gelet. Ten eerste *huishoudens*; in welke mate waren huishoudens qua behuizing en qua economische activiteiten autonome eenheden en pasten ze in grotere verbanden? Ten tweede ‘*lineage houses*’; waren er huizen die een rituele betekenis hadden die het individuele huishouden oversteeg? Ten derde *communale gebouwen*; waren er structuren die duidelijk afweken van woonhuizen en die het algemene nut dienden? Ten vierde de *buurtschappen*; welke samenstelling en omvang hadden deze buurtschappen en welke rol speelden ze in het sociale verkeer? Ten vijfde de *lokale gemeenschap*, oftewel de totale bevolking van een nederzetting; op welke wijze verhielden mensen zich binnen deze gemeenschap?

Hoofdstuk 3

In de archeologie gebruiken we informatie uit de huidige wereld om te komen tot een interpretatie van het verleden. Wat betreft materiële cultuur kan men via de ethnoarcheologie komen tot een beter begrip van objecten, materialen en technieken. Datgene waarvoor de ethnoarcheologie van het grootste nut zou kunnen zijn, namelijk een beter begrip van materialen en technologieën, blijft helaas een weinig bestudeerd onderwerp.

De leembouw architectuur is beter te begrijpen wanneer subrecente traditionele bouwmethoden worden bestudeerd. Aangezien men in het verleden veelal te maken had met hetzelfde klimaat en beschikking had over dezelfde lokale bouwmaterialen, zouden regionale traditionele bouwwijzen ons veel kunnen vertellen over gebouwen uit de prehistorie. Uit studies over leembouwtradities zijn belangwekkende zaken te leren over tal van aspecten die betrekking hebben op lemen gebouwen.

Zo hebben dergelijke gebouwen thermische eigenschappen die er voor zorgen dat men in de zomer de avond en de nacht vaak buitenshuis spendeert, terwijl men in de winter binnenblijft. Verder is het zo dat in het droge seizoen het dak van deze gebouwen vaak gebruikt wordt voor allerlei activiteiten, terwijl dat in de winter niet gebeurt vanwege regenval en een grotere kwetsbaarheid van de van vocht verzadigde daken. Zonder extra maatregelen, zoals draagbalken, is het bij lemen gebouwen in de regel niet mogelijk om meer dan drie en halve meter te ‘overdakken’. In traditionele gebouwen is er vaak een behoorlijke variatie in de afwerking van muren en vloeren van kamers en deze variatie is meestal direct gerelateerd aan de functie en status van de betreffende kamers. Uit talloze studies blijkt dat lemen gebouwen erg ‘dynamisch’ kunnen zijn, want ze kunnen gemakkelijk worden aangepast, onderverdeeld of uitgebreid.

Al deze aspecten zijn van groot belang bij de interpretatie van de gebouwen uit het Neolithicum van Centraal Anatolië en zij vormen de basis waarop andere zaken kunnen worden bestudeerd. De dynamiek van lemen gebouwen heeft bijvoorbeeld tot gevolg dat de stratigrafieën die archeologen plachten te maken met faseplattegronden van nederzettingen, feitelijk uit gaan van een onhoudbaar model waarin de herbouwingen over een groot areaal als gelijktijdig worden beschouwd. Dergelijke plattegronden kunnen hooguit als een benadering van de werkelijkheid worden beschouwd.

Hoofdstuk 4

Aşıklı Höyük is een van de sleutelsites voor de studie van het Neolithicum van Centraal Anatolië, omdat de site op grootschalige wijze is opgegraven. Op de top van Aşıklı Höyük is een groot areaal blootgelegd, waarin een aantal geclusterde buurtschappen te herkennen zijn, alsmede een groot afvalterrein, een met stenen geplaveide straat en twee grote monumentale complexen.

De omvang van de kamertjes in deze geclusterde buurtschappen is opmerkelijk klein: de meeste ruimtes zijn niet groter dan 12 m². In sommige gevallen bevatten de woongebouwen slechts één kamer, maar er zijn er ook met twee tot drie kamertjes. Afgezien van de begravingen onder de vloer en haarden zijn er vrij weinig sporen in de gebouwen te Aşıklı Höyük aangetroffen. Slechts 35 % van de kamers bevat een haard en deze haarden zijn niet volgens een vast patroon over de nederzetting verdeeld. Zo heeft niet elk gebouw een haard. In sommige kamers te Aşıklı Höyük zijn begravingen aangetroffen, waarbij het grootste aantal personen onder één vloer vier bedraagt. In de meeste gevallen (80 %) bevonden deze begravingen zich in kamers die ook haarden bevatten.

Op basis van deze kenmerken van de lemen gebouwen te Aşıklı Höyük lijkt het er niet op dat we huizen kunnen onderscheiden die duidelijk toebehoord hebben aan autonome huishoudens. Ten eerste zijn de gebouwen wel erg klein om te dienen als woningen. Ten tweede heeft niet elk gebouw een haard, zodat dergelijke gebouwen niet beschouwd kunnen worden als wooneenheid. Ten derde lijkt het erop dat een aanzienlijk deel van de 'huishoudelijke' praktijken te Aşıklı Höyük plaatsvond in grote open ruimtes en niet in de gebouwen. Deze drie zaken tezamen wijzen erop dat de huishoudens te Aşıklı Höyük geen separate woonhuizen gebruikten, maar een groep kamers verspreid over de nederzetting en dat economische activiteiten niet primair plaatsvonden in de besloten kring van het huishouden.

In de sondage '4H/G' te Aşıklı Höyük is een lange sequentie van bewoning vastgelegd. Opvallend is hierbij dat de gebouwen steeds op dezelfde plek en met dezelfde oriëntatie herbouwd werden, waarbij de muren van de voorgaande structuur als fundering werden gebruikt. Dit resulteerde in een grote mate van continuïteit gedurende de vele herbouwingen die tezamen ettelijke eeuwen in beslag namen. Deze continuïteit blijft echter niet beperkt tot louter functionele aspecten, zoals met name blijkt uit het feit dat haarden steeds op dezelfde locatie in de gebouwen werden geplaatst. Kennelijk had de continuïteit van gebouwen ook een sociaalideologische betekenis. Het is gesteld dat dit te maken had met het legitimeren van de bestaande maatschappelijke orde.

Op het buurtschapniveau kunnen we op Aşıklı Höyük een aantal grenzen postuleren en beredeneren hoe groot deze ongeveer waren. De best gedocumenteerde buurtschap had tussen de 60 en 90 kamers, waarvan er tussen de 27 en 36 woonkamers waren. Op basis daarvan kunnen we poneren dat er ongeveer 30 huishoudens in een dergelijke buurtschap woonden. Het aantal inwoners van de buurtschap kan daarmee worden geschat tussen de 108 en 180 mensen. Gedurende de grootste uitbreiding van Aşıklı Höyük zouden er ongeveer 10 tot 15 buurtschappen geweest kunnen zijn met een bevolking tussen de 1080 en 2700 mensen.

De twee grote monumentale gebouwen zouden het verbindende element kunnen hebben gevormd tussen de verschillende buurtschappen. Deze gebouwen weken volledig af van de gebouwen binnen de buurtschappen en zijn apart gesitueerd. Het meest kenmerkende element van deze gebouwen waren de centrale binnenplaatsen en het is plausibel dat daarin groepen mensen

bijeenkwamen. Zelfs in de grootste binnenplaatsen konden echter maximaal 340 mensen bijeenkomen, wat betekent dat er alleen plaats was voor een selectie van de inwoners.

De configuratie van de ruimte te Aşıklı Höyük was zodanig dat de buurtschappen deels van elkaar gescheiden werden door vrij smalle steegjes en deels door bredere straten. De smalle steegjes dienden vermoedelijk alleen als doorgang op grondniveau, omdat ze te smal waren om ladders te plaatsen. Waarschijnlijk stonden de ladders zowel op brede straten als ook bij de grote afvalterreinen die aan de buurtschappen grensden. Het is gesteld dat de meeste 'huishoudelijke' activiteiten op deze afvalterreinen plaatsvonden. Binnen de buurtschappen was er waarschijnlijk een duidelijke controle op wie erop de daken aanwezig was en wat men daar deed. Naar alle waarschijnlijkheid was de toegang tot dit dakniveau aan allerlei regels gebonden zodat alleen de buurtbewoners en hun gasten er konden komen.

Als men alles tezamen neemt, lijkt de buurtgemeenschap het centrale element in de samenleving te Aşıklı Höyük. Het was waarschijnlijk dat binnen deze gemeenschap de kamers verdeeld werden onder de huishoudens. De geclusterde buurtschappen zorgden ervoor dat men veel met elkaar te maken had en elkaar goed in de gaten kon houden. In deze configuratie was de geclusterde buurt als het ware het symbool van de eenheid van deze groep. De huishoudens lijken hieraan ondergeschikt te zijn geweest. Tenslotte lijkt het erop dat de monumentale gebouwen een functie hadden in het samenbrengen van mensen uit verschillende buurtschappen.

Hoofdstuk 5

De opgravingen te Canhasan III waren erg kleinschalig van karakter, maar niettemin is door te schaven een areaal van 20 bij 30 meter vrijgelegd. Dit areaal maakt een analyse mogelijk van de nederzettingvorm op deze site. Een drietal geclusterde buurtschappen kunnen worden onderscheiden. Deze werden van elkaar gescheiden door smalle steegjes en ruimere plaatsen. Deze zijn als zodanig te onderscheiden omdat ze significant groter waren dan alle andere ruimtes in de nederzetting, de maximale overspanningsbreedte voor daken ver overstegen en aansluiting hadden op de smalle steegjes.

De kamertjes in de buurtschappen varieerden van 6 tot 21 m² in omvang en waren daarmee aanzienlijk ruimer dan de kamers van Aşıklı Höyük. De gebouwen te Canhasan III bevatten één tot twee kamers. Omdat de plattegrond van Canhasan III is verkregen door te schaven en de gebouwen dus niet tot op vloerniveau zijn opgegraven, is er weinig bekend over de functies van de kamers op deze site. Qua omvang zouden de gebouwen woningen van huishoudens kunnen zijn geweest, maar deze hypothese kan niet getoetst worden aan contextuele gegevens.

De buurtschappen die te Canhasan III zijn vrijgelegd zijn te incompleet om er veel over te kunnen zeggen, behalve dat ze waarschijnlijk meer dan tien gebouwen hebben omvat. Op basis van de dichtheid van de bebouwing in het onderzochte areaal kan de maximale bevolking van Canhasan III worden geschat tussen de 660 en 1250 mensen. De nederzetting was verdeeld in een aantal buurtschappen die van elkaar gescheiden werden door steegjes die te smal waren om er ladders in te plaatsen. Het is dan ook waarschijnlijk dat men via de plaatsen omhoog klom. Deze zouden dan gelijk gefungeerd kunnen hebben als een plek waar mensen van verschillende buurtschappen elkaar konden ontmoeten. Het is waarschijnlijk dat ook te Canhasan III het dakniveau alleen toegankelijk was voor de inwoners van de buurt en hun gasten.

Hoofdstuk 6

Çatalhöyük is om een aantal redenen de belangrijkste site van deze studie. Ten eerste is er grootschalig opgegraven in de jaren zestig van de vorige eeuw. Ten tweede stonden er relatief veel gegevens tot mijn beschikking. Ten derde bevatten de gebouwen op deze site een enorme rijkdom aan sporen die de nederzetting uitermate geschikt maken voor een contextuele analyse. Ten vierde kon ik deel nemen aan de recente opgravingen op de site en daardoor de gebouwen goed leren kennen, bovendien had ik toegang tot de archieven en ongepubliceerde documenten van het project.

Çatalhöyük ligt geïsoleerd in het landschap en is met 13 hectare één van de grootste sites van het Neolithicum van het Nabije Oosten. Er zijn 12 bouwlagen onderscheiden (XII tot en met I, van de bodem naar de top). Lagen XII tot en met VI worden gerekend tot het Vroeg Ceramisch Neolithicum en hebben geclusterde buurtschappen. Lagen V tot I behoren tot het Laet Ceramisch Neolithicum en hebben een meer open nederzettingvorm.

In de jaren zestig van de vorige eeuw werden er per dag bijna twee kamers opgegraven te Çatalhöyük en zijn er in totaal ongeveer 400 kamers onderzocht. Op de meer recente opgravingen op de site, die sinds 1993 plaatsvinden, wordt veel nauwkeuriger gewerkt. Als voorbeeld kan de opgraving van gebouw 'ÇRP.3' genoemd worden, waarbij het zeven seizoenen duurde om drie kamers op te graven. Het is bij deze twee projecten dan ook belangrijk om ze complementair te bestuderen. De oudere data kunnen worden gebruikt om inzicht te krijgen in de buurtschappen en de verdeling van de sporen over de gebouwen, alsmede voor begrip van de diachrone ontwikkelingen die gebouwen doormaakten. De meer recente data zijn van belang voor een gedetailleerd beeld van de complexe ontwikkelingen die de gebouwen doorliepen.

De nederzetting te Çatalhöyük heeft drie soorten ruimtes, open ruimtes die omgeven zijn door gebouwen, open ruimtes die met andere open ruimtes in verbinding staan en lemen woongebouwen. Monumentale gebouwen zijn niet aangetroffen. De open ruimtes op de site lijken vooral gebruikt te zijn om afval te dumpen en om dieren te houden.

De lemen gebouwen te Çatalhöyük zijn net als die te Aşıklı Höyük meestal gefundeerd op oudere gebouwen. Daarbij werd het oudere gebouw deels verwijderd en opgevuld om zodoende een platform te creëren voor het nieuwe gebouw. De gebouwen te Çatalhöyük werden continue aangepast en onderhouden en dit resulteerde in bijzonder complexe sequenties die alleen met zorgvuldig opgraven kunnen worden gereconstrueerd. Woonkamers werden veel vaker bepleisterd, bovendien met beter materiaal dan de bijbehorende voorraadkamers. Aan de hand van de pleisterlagen in de woonkamer, die in een jaarlijkse cyclus werden aangebracht, kan de gemiddelde levensduur van de gebouwen op ongeveer 60 jaar worden gesteld.

De kamers te Çatalhöyük kunnen worden ingedeeld in woonkamers met haarden en compartimenten, bijkamers (met woonkamers verbonden kleine kamers) en kamers waarvan de functie onbekend is. De woonkamers zijn gemiddeld ongeveer 21 m² groot, de bijkamers 5 m² en de kamers met onbepaalde functie 8 m². Opvallend is dat te Çatalhöyük veel kamers meer dan vier en halve meter breed zijn, een afstand die zonder extra ondersteuning niet 'overdakt' kon worden bij lemen gebouwen. Het is waarschijnlijk dat de palen en steunberen die in veel van de kamers te Çatalhöyük zijn aangetroffen als ondersteuning voor het dak dienden. Het is niet erg plausibel dat er bovenverdiepingen te Çatalhöyük waren.

Omdat de gebouwen te Çatalhöyük allemaal hun eigen buitenmuren hadden, kunnen ze vrij eenvoudig van elkaar onderscheiden worden. Alle gebouwen bevatten een woonkamer en daarnaast in veel gevallen nog één of twee bijkamertjes. Deze gebouwen zijn gemiddeld 27 m² in omvang. Naast dergelijke normale woongebouwen zijn er nog een aantal 'tweelinggebouwen' met twee woonkamers die vaak verbonden zijn door interne deuren.

De ruimtelijke indeling van de gebouwen te Çatalhöyük was in hoge mate gestandaardiseerd, met in de meeste gevallen het trapgat, de haard en de ovens in het zuiden. Hetzelfde geldt in mindere mate ook voor de opslagstructuren, zoals silo's en bassins. De schonere compartimenten waren daarentegen in het noordoosten gesitueerd. Studies van de micromorfologie van de sedimenten en van de microartefacten wijzen erop dat het zuidelijk deel van het huis veelal werd gebruikt als keuken en werkruimte, terwijl het noordoostelijk deel schoner werd gehouden werd. De compartimenten in het noordoosten en oosten vallen verder op omdat de maten vrij gestandaardiseerd zijn, het is waarschijnlijk dat ze een functie als slaappleaats hadden.

Een aparte categorie sporen te Çatalhöyük zijn de wandschilderingen en de plastieken en installaties met horens. De schilderingen waren slechts kort zichtbaar voordat ze werden bedekt onder nieuwe pleisterlagen. Het is waarschijnlijk dat we maar een klein deel van de schilderingen terugvinden, aangezien het ondoenlijk is alle pleisterlagen van alle gebouwen af te pellen. Toch

zijn er in vrij veel gebouwen schilderingen bekend, dit wijst erop dat wandschilderingen waarschijnlijk vrij algemeen verspreid waren over de nederzetting. Er kunnen allerlei motieven onderscheiden worden in de wandschilderingen, waarbij het opvalt dat deze motieven vaak maar gedurende een korte tijd in gebruik waren (bijvoorbeeld in twee bouwlagen). Bovendien kunnen ze vaak met specifieke gebouwen worden geassocieerd. De wandschilderingen werden met name aangetroffen op de noordelijke en oostelijke muren van de woonkamers.

In tegenstelling tot de wandschilderingen lijken de plastieken en installaties met horens alleen voor te komen in een beperkte groep gebouwen te Çatalhöyük, die circa 20 % van het totaal omvat. Het aandeel gebouwen met plastieken kan in werkelijkheid hoger zijn geweest omdat er soms al tijdens de gebruiksfase van een gebouw plastieken werden verwijderd. In tegenstelling tot de wandschilderingen lijken de plastieken vaak gedurende langere perioden in de gebouwen aanwezig te zijn geweest zoals blijkt uit herpleisteringen en herschilderingen. De meeste plastieken worden aangetroffen op de oostelijke muren van woonkamers, maar ze komen in mindere mate ook wel voor op de andere muren. De plastieken en installaties met horens lijken vooral veel voor te komen in lagen VII en VI en min of meer te verdwijnen in lagen V tot en met I. Sommige motieven zijn aangetroffen in meerdere herbouwingen van hetzelfde huis en dit suggereert dat deze motieven vervlochten waren met de identiteit van een gebouw.

In een vijfde van de gebouwen te Çatalhöyük zijn begravingen onder de vloer aangetroffen. Aangezien deze begravingen niet werden verwijderd, is het waarschijnlijk dat dit een reële verdeling is. Verder is het zo dat binnen de huizen die begravingen onder hun vloeren bevatten, er een verdeling is in gebouwen met slechts enkele begravingen en gebouwen met heel veel begravingen (meer dan 25). Op basis van deze begravingen is het duidelijk dat slechts een deel van de bevolking van Çatalhöyük in de huizen begraven werd. Verder blijkt dat deze begravingen bij voorkeur plaatsvonden in een selecte groep gebouwen, met meer begravingen dan er mogelijkwerwijs afkomstig konden zijn uit de kring van het eigen huishouden. Het is daarom waarschijnlijk dat in sommige gebouwen mensen begraven werden die elders gewoond hadden.

De woongebouwen te Çatalhöyük kunnen met vrij grote zekerheid worden aangeduid als huizen van min of meer autonome huishoudens, zowel qua huisvesting als qua economische activiteiten. Ze hebben een min of meer gestandaardiseerde omvang en zijn ruim genoeg voor een huishouden van vier tot vijf mensen, wat overeenkomt met het aantal aanwezige slaapplekken. Verder bevatten ze een set van huishoudelijke faciliteiten, zoals haarden, ovens en opslagfaciliteiten. In de gebouwen is de ruimtelijke indeling van elementen min of meer gestandaardiseerd en dit doet vermoeden dat dit ook een symbolische betekenis had.

Naast dergelijke elementen, die in alle gebouwen voorkwamen, zijn er de wandschilderingen, plastieken, installaties met horens en begravingen die verklaring behoeven. Mellaart, de eerste opgraver van Çatalhöyük, zag gebouwen met veel plastieken en wandschilderingen als heiligdommen. Latere auteurs, waaronder Hodder, hebben daarentegen betoogd dat alle gebouwen min of meer gelijkwaardig waren en dat een dergelijk onderscheid niet gemaakt kan worden. In deze studie blijkt echter dat plastieken, installaties met horens en met name begravingen onder de vloeren wel degelijk in een beperkte groep gebouwen waren geconcentreerd. Dit suggereert dat deze gebouwen een andere status hadden dan huizen zonder deze elementen. Tegelijkertijd ontbreken er scherpe grenzen tussen deze twee categorieën.

Wanneer de gebouwen van Çatalhöyük in diachroon perspectief worden bestudeerd, komt een opmerkelijk punt naar voren: gebouwen kunnen worden getraceerd tot over zeven herbouwingen, gedurende een periode van ongeveer 420 jaar! De extreme continuïteit van deze gebouwen betekent waarschijnlijk dat deze gebouwen in bruikleen werden gegeven aan huishoudens, maar het eigendom bleven van grotere sociale eenheden. Wat verder blijkt is dat begravingen en plastieken met name voorkwamen in gebouwen die zeer veelvuldig herbouwd waren. Voorts is duidelijk dat gebouwen gedurende een aantal herbouwingen in status konden veranderen van een normaal woongebouw naar een 'lineage house', waarin begravingen van een grotere groep huishoudens plaatsvonden.

Dit patroon wordt echter doorbroken in lagen V tot en met I te Çatalhöyük, wanneer huizen niet meer herbouwd worden en de status van huizen niet langer bepaald wordt door hun stamboom, hoewel er nog steeds gebouwen zijn die als begraafplaats dienden voor groepen huishoudens. Het is waarschijnlijk dat huizen toen eigendom werden van de huishoudens die ze bewoonden en dat de geschiktheid van huizen voor begravingen samen ging vallen met de status van hun bewoners, in plaats van die van het huis. Het is ook in deze latere lagen dat straten worden geïntroduceerd te Çatalhöyük, waardoor de geclusterde buurtschappen verdwenen en plaats maakten voor een meer open nederzettingstructuur.

Hoewel het lastig is buurtschappen te onderscheiden te Çatalhöyük, omdat deze niet geheel zijn blootgelegd, kunnen we ze toch met enige stelligheid reconstrueren. Tijdens de schaafcampagne op de noordelijke top is een buurtschap gevonden dat duidelijk wordt begrensd door een doorgaande straat. In laag VI van Çatalhöyük kunnen we een buurtschap reconstrueren dat ongeveer dertig woongebouwen omvatte. Hiermee zou de bevolking van een dergelijke buurtschap op ongeveer 150 man uitkomen. In dit buurtschap waren er vijf tot zes 'lineage houses', elk met een groep geassocieerde huishoudens.

In de lagen V tot en met I te Çatalhöyük verdwijnen de geclusterde buurtschappen en waren gebouwen toegankelijk via straten. Hierdoor werden buurtschappen minder duidelijk begrensde entiteiten en had men minder met elkaar te maken. Dit betekent echter niet dat buurtschappen geen rol meer speelden in deze periode. In laag VI en VII, waarin Çatalhöyük zijn maximale omvang bereikte, zou de totale bevolking tussen de vijf- en achtduizend mensen geweest kunnen zijn, met tussen de 27 en 53 buurtschappen.

De configuratie van de nederzettingruimte te Çatalhöyük van de vroege lagen XII tot en met VI, verschilt in grote mate van de latere lagen V tot en met I. In de vroege lagen was het verkeer binnen de buurtschappen geconcentreerd op het dakniveau en gedurende de droge tijd van het jaar was dit dan ook een belangrijke plek voor tal van activiteiten en voor sociale interactie. Het is waarschijnlijk dat deze daken alleen op deze manier werden gebruikt door de buurtbewoners en hun gasten.

In lagen V tot en met I bereikte men de huizen via de open ruimte en de daken van huizen werden waarschijnlijk alleen nog door de hun bewoners gebruikt. De open ruimtes werden naar het lijkt nauwelijks gebruikt voor huishoudelijke activiteiten. Deze waren niet geassocieerd met individuele gebouwen en bovendien minder eenvoudig te controleren. Hierdoor veranderde dan ook de aard en intensiteit van de sociale interactie in de buurtschappen op een wezenlijke wijze, waarbij het sociale leven meer op het huishouden en minder op de buurtschap geconcentreerd werd.

Hoofdstuk 7

Erbaba is in deze studie opgenomen om zo compleet mogelijk te zijn. Feitelijk is er relatief weinig over bekend. Opvallend aan Erbaba is dat het in sommige opzichten aansluit bij de eerder besproken sites. Er zijn geclusterde buurtschappen en de gebouwen werden herbouwd in dezelfde oriëntatie en met dezelfde afmetingen. Er zijn echter ook duidelijke verschillen aan te merken. Zo zijn de gebouwen te Erbaba gemaakt van steen, is de site van een vrij kleine omvang en is gelokaliseerd te midden van een groep vergelijkbare kleine Neolithische nederzettingen.

De kamertjes te Erbaba zijn vrij compact, gemiddeld 7 m² en de muren en vloeren zijn niet gepleisterd. Daarnaast zijn er erg weinig huishoudelijke structuren aangetroffen. Een mogelijke verklaring hiervoor is dat we te maken hebben met de benedenverdieping en dat de werkelijk woonvertrekken boven waren. Sommige van de gebouwen te Erbaba zouden op basis van hun omvang als woning voor een huishouden gefungeerd kunnen hebben.

Met behulp van de bebouwingsdichtheid van Erbaba en de omvang van de site kan een schatting worden gemaakt van de bevolkingsomvang van de nederzetting. Deze komt uit tussen de 190 en 285 mensen, wat gelijk staat aan één tot twee geclusterde buurtschappen. Daarmee is Erbaba een veel kleinere nederzetting dan Aşıklı Höyük, Canhasan III en Çatalhöyük en dit houdt

waarschijnlijk verband met de aanwezigheid van andere kleine Neolithische sites in de nabije omgeving.

Hoofdstuk 8

Canhasan I is de laatste van de nederzettingen met geclusterde buurtschappen in Centraal Anatolië. Er zijn op de site zeven lagen onderscheiden, maar van belang voor dit onderzoek zijn de lagen 2B en 2A. Hoewel French, de opgraver, deze lagen als aparte fasen beschouwt, is het waarschijnlijker dat datgene wat door hem 2A genoemd wordt, een serie lokale en ongerelateerde verbouwingen is in de laag 2 horizont.

In de sequentie van Canhasan is een verandering in bouwtechnologie zichtbaar. Dit behelst de standaardisatie van lemen tichels die nu in een mal gemaakt worden en de introductie van steunberen en vrijstaande dragende palen. Deze nieuwe technologie kan worden gerelateerd aan de introductie van bovenverdiepingen. Bij één gebouw, 2B.10, zijn hiervoor aanwijzingen gevonden in de vorm van muren van deze verdieping die nog overeind stonden en ingestorte resten van de bovenverdieping. Verder waren de benedenruimtes te Canhasan I zelden gepleisterd en bevatten ze weinig huishoudelijke structuren. Tenslotte is te Canhasan I, net als te Erbaba, de verhouding tussen het totale oppervlak van de gebouwen en het interne oppervlak veel ongunstiger dan te Aşıklı Höyük, Canhasan III en Çatalhöyük. Al deze zaken maken het bestaan van een bovendienping te Canhasan I uitermate aannemelijk.

Door de afwezigheid van huishoudelijke structuren in de benedenverdiepingen te Canhasan I, is het niet mogelijk om de functies van deze ruimtes anders dan als opslagruimte te duiden. Wel is het zo dat er een behoorlijke variatie is in de omvang van de kamers en hun onderlinge configuratie, maar de betekenis hiervan ontgaat ons.

Op basis van de omvang van de bovenverdiepingen lijkt het erop dat deze gebouwen als woning van huishoudens fungeerden. Daarbij moet opgemerkt worden dat te Canhasan I de variatie in de omvang van de gebouwen groter is dan bij de andere nederzettingen in deze studie, wat zou kunnen duiden op een toegenomen differentiatie van huishoudens. De bevolking van Canhasan I kan worden geschat op tussen de 2500 en 3800 mensen en dat zou betekenen dat er tussen de 13 en 26 buurtschappen bestonden.

Hoofdstuk 9

Het denken over gemeenschappen in de westerse traditie is bepaald door het begrippenpaar *gemeenschap* en *gezelschap*, waarbij het eerste begrip staat voor een kleine groep met directe onderlinge relaties op basis van gelijkwaardigheid, terwijl het tweede begrip staat voor relaties met relatieve onbekenden in een wereld waarin mensen gespecialiseerde arbeid uitvoeren en vaak in een hiërarchische relatie tot elkaar staan. Deze twee vormen van interactie zijn in principe in alle samenlevingen terug te vinden. Het probleem met dit begrippenpaar is dat het hierbij gaat om normatief geladen concepten die geconcentreerd zijn op de relatie van het individu tot het geheel en weinig inzicht verschaffen bij de analyse van concrete samenlevingen.

Nuttiger voor deze studie is een *interactieperspectief*, waarin bestudeerd wordt wat de sociale collectieven zijn waaruit een samenleving is opgebouwd en hoe deze onderling geconfigureerd zijn. Cruciaal hierbij is de wijze waarop sociale collectieven zijn vervlochten met de gebouwde omgeving en hoe deze de interactie in het dagelijkse leven beïnvloedt.

Een dergelijk perspectief maakt het mogelijk om af te rekenen met het idee dat Vroeg Neolithische samenlevingen door externe omstandigheden waren gedwongen tot een stressvol bestaan in grote gemeenschappen, een hypothese die niet ondersteund wordt door de data waarover we beschikken. In plaats daarvan is het mogelijk te onderzoeken hoe vroege gemeenschappen functioneerden en waarom mensen een bestaan in dergelijke gemeenschappen aantrekkelijk vonden.

Deze gemeenschappen kunnen we op een aantal niveaus bekijken. Op het niveau van *huishoudens* zien we dat te Aşıklı Höyük de huishoudens niet autonoom waren qua behuizing of

economische activiteiten. Te Çatalhöyük was de situatie wezenlijk anders, huishoudens waren hier zelfstandig zowel wat betreft behuizing als in de huishoudelijke economie. Tegelijkertijd waren huishoudens op deze site nog onderdeel van grotere structuren zoals de buurtschappen en waren zij georiënteerd op 'lineage houses'. In de latere lagen V tot en met I te Çatalhöyük lijken de huishoudens nog autonomer te zijn geworden. Dit resulteerde uiteindelijk in het verdwijnen van de geclusterde buurtschappen. Van de latere sites Erbaba en Canhasan I kunnen we niet veel zeggen over de huishoudens omdat de gegevens daarvoor ontbreken.

Te Çatalhöyük hebben sommige huizen een functie als '*lineage house*', dat wil zeggen dat ze het rituele centrum waren van een aangesloten groep huishoudens, die bijvoorbeeld zijn doden daar begroef. De status van deze '*lineage houses*' was vervlochten met hun stamboom. Dit type gebouw ontbreekt te Aşıklı Höyük en ook in lagen V tot en met I te Çatalhöyük komen deze '*lineage houses*' niet meer voor. Wel blijven sommige gebouwen functioneren als begraafplaatsen voor grotere groepen, maar dit heeft waarschijnlijk meer te maken met de status van hun inwoners dan met die van het huis.

Het volgende niveau van sociale interactie dat we kunnen reconstrueren is dat van de *geclusterde buurtschappen*. De gegevens te Aşıklı Höyük en Çatalhöyük wijzen erop dat deze waarschijnlijk ongeveer 30 tot 40 huishoudens omvatten, wat neerkomt op 150 tot 200 mensen. Dergelijke buurtschappen zijn goed te vergelijken met etnografische voorbeelden van buurtgemeenten van vergelijkbare schaal in het subrecente Nabije Oosten. Een groep van 150 tot 200 mensen is verder uit tal van onderzoeken naar voren gekomen als de maximale groep waarbinnen directe persoonlijke contacten tussen mensen mogelijk zijn. Dit sluit goed aan bij een ruimtelijke configuratie waarbij men op het dakniveau veelvuldig met elkaar te maken had.

Communale gebouwen zijn alleen op Aşıklı Höyük aangetroffen. Deze gebouwen wijken in schaal en bouwmaterialen duidelijk af van de woonhuizen. Ze staan apart van de buurtschappen. Het is dan ook waarschijnlijk dat in hun binnenplaatsen bijeenkomsten plaatsvonden van mensen uit verschillende buurtschappen. Het ging daarbij om een selectie van de lokale gemeenschap. Het feit dat dergelijke gebouwen niet aanwezig lijken te zijn te Çatalhöyük hoeft echter niet te betekenen dat mensen van verschillende buurtschappen daar niet samenkwamen. Het is waarschijnlijker dat deze bijeenkomsten een andere vorm hadden.

De schaal van de *lokale gemeenschappen*, tenslotte, varieert behoorlijk voor de nederzettingen van het Neolithicum van Centraal Anatolië. Terwijl in Erbaba niet meer dan 300 mensen woonden, wat gelijk staat aan één à twee buurtschappen, had Çatalhöyük tussen de vijf- en achtduizend inwoners en zouden er tot 50 buurtschappen kunnen zijn geweest. Dit contrast kan worden verklaard aan de hand van het nederzettingssysteem. Terwijl Erbaba onderdeel is van een nederzettingssysteem van een grote groep kleine nederzettingen, zijn te Aşıklı Höyük en Çatalhöyük al deze nederzettingen blijkbaar samengetrokken tot één grote nederzetting. De landschappen rond deze sites bevatten dan ook geen additionele nederzettingen.

Rest de vraag naar het *waarom* van deze grote nederzettingen. Het is waarschijnlijk dat de redenen van mensen om in grote gemeenschappen samen te leven te Aşıklı Höyük en Çatalhöyük, wat tal van praktische bezwaren had, vooral bepaald werden door sociaalideologische factoren. Gedacht kan worden aan een ideologie die enerzijds het belang van een specifieke locatie benadrukte en anderzijds het belang van de eenheid van de lokale gemeenschap.

CURRICULUM VITAE

Bleda Serge Düring is geboren in 1976 te Istanbul. Op Texel doorliep hij het VWO van 1989 tot 1995 aan de Openbare Scholengemeenschap 'de Hoge Berg'. Vervolgens ging hij aan de Universiteit van Leiden archeologie studeren en behaalde hij zijn MA in 2000. Na een jaar werkzaam te zijn geweest in de Nederlandse archeologie, begon hij in 2001 met het promotieonderzoek waarvan dit boek het resultaat is. Zijn promotieplaats werd gefinancierd door de Faculteit der Archeologie van de Leidse Universiteit. Gedurende deze promotie heeft hij deelgenomen aan de opgravingen te Çatalhöyük, de belangrijkste site binnen het promotieonderwerp, heeft hij zijn onderzoek gepresenteerd op tal van symposia in het buitenland en is hij een tijd in Cambridge geweest om archiefonderzoek te doen naar Çatalhöyük. Naast dit boek is er een serie artikelen, gerelateerd aan het promotieonderzoek, van zijn hand verschenen.

STELLINGEN

BEHORENDE BIJ HET PROEFSCHRIFT VAN B.S. DÜRING: *CONSTRUCTING COMMUNITIES, CLUSTERED NEIGHBOURHOOD SETTLEMENTS OF THE CENTRAL ANATOLIAN NEOLITHIC, CA. 8500-5500 CAL. BC.*

1. De archeologie laat zich, ondanks een post-processueel jargon dat het tegendeel beweert, nog steeds te veel leiden door grote synthetische perspectieven, waarbij regionale tradities worden genegeerd en algemene sociaal-evolutionaire ontwikkelingen worden geschilderd. Hierdoor is er te weinig aandacht geweest voor de eigenheid van regionale culturen en voor de wijze waarop deze culturen in grotere ontwikkelingen passen. (Dit proefschrift, hoofdstuk 1).
2. Voor een begrip van prehistorische nederzettingen zijn grootschalige opgravingen van cruciaal belang. Dergelijke opgravingen hebben vaak een minder scherpe resolutie van gegevens dan sommige moderne projecten waarbij slechts enkele huizen worden opgegraven. Daarom zijn grootschalige opgravingen soms afgedaan als niet langer relevant. Deze zienswijze is kortzichtig omdat men bij grootschalige opgravingen datgene wat men verliest in detail, wint in overzicht. Beide manieren van opgraven zijn legitiem, en in het ideale geval kunnen ze worden gecombineerd. (Dit proefschrift, hoofdstuk 6).
3. Mede door de focus op de sociale en symbolische aspecten van materiële cultuur, die de archeologie sinds de jaren zestig van de vorige eeuw heeft gedomineerd, is het ethnoarcheologisch onderzoek naar materialen en technologieën te veel op de achtergrond geraakt. Een goed begrip van die aspecten is echter een onmisbaar eerste element in elk soort van archeologische reconstructie. (Dit proefschrift, hoofdstuk 3).
4. Het concept ‘stratigrafie’ is, ondanks de centrale plek die het inneemt binnen de archeologie als discipline, nauwelijks onderwerp van reflectie geweest, anders dan in puur technische zin (in de vorm van de zogenaamde Harris matrix en het gebruik van profieldammen). Enerzijds is dit te wijten aan een gebrek aan theoretische interesse in de archeologische disciplines waarbinnen men met complexe stratigrafieën te maken heeft, zoals de archeologie van het Nabije Oosten. Anderzijds is dit het gevolg van een opgraaftaditie die zich veelal richt op hetzij kleine sondages, hetzij monumentale gebouwen. (Dit proefschrift, hoofdstuk 3).
5. Bij het reconstrueren van Neolithische samenlevingen in het Nabije Oosten zijn archeologen te zeer uitgegaan van een model van autonome huishoudens als basiselement van de samenleving en is er te weinig oog geweest voor alternatieve vormen van huishoudens en de manier waarop deze in grotere verbanden zijn opgenomen. (Dit proefschrift, hoofdstuk 4, 6 en 9; Düring en Marciniak 2005).
6. De opmerkelijke continuïteit in locatie, oriëntatie, dimensies en indeling van de woongebouwen te Aşıklı Höyük en Çatalhöyük gedurende vele herbouwfases die tezamen een aantal eeuwen in beslag nemen, is niet te verenigen met een model waarin huizen het exclusieve bezit zijn van huishoudens. Veel waarschijnlijker is het daarom dat deze gebouwen eigendom waren van grotere sociale groepen, die de huizen verdeelden onder hun leden. (Dit proefschrift, hoofdstuk 4, en 6; Düring 2005a).

7. Vanuit een diachroon perspectief kan worden aangetoond dat eenvoudige woonhuizen te Çatalhöyük gedurende een sequentie van herbouwingen steeds meer rituele betekenis kregen, wat met name blijkt uit de toename in het aantal begravingen onder de vloeren van huizen. Uiteindelijk kregen sommige gebouwen hierbij een functie als de rituele focus van een grotere groep huishoudens, die bijvoorbeeld zijn doden daar begroef. (Dit proefschrift, hoofdstuk 6 en 9; Düring 2003; 2005a).
8. De ruimtelijke configuratie van de nederzettingen van het Neolithicum van Centraal Anatolië, die zijn georganiseerd in geclusterde buurtschappen van ongeveer 30 tot 40 huishoudens, wijst erop dat de buurtgemeente van centraal belang was voor mensen in deze cultuurhorizont. Het verdwijnen van de geclusterde buurtschappen in lagen V tot en met I te Çatalhöyük heeft te maken met de toegenomen autonomie van huishoudens. (Dit proefschrift, hoofdstuk 6 en 9; Düring 2001; Düring en Marciniak 2005).
9. Er is een opmerkelijke correlatie tussen de verbreiding van koffie in Europa en de opkomst van de wetenschap. Dientengevolge zou het creëren van behoorlijke koffievoorzieningen in de gebouwen van de universiteit de hoogst mogelijke prioriteit verdienen.