



Universiteit
Leiden

The Netherlands

The first farmers: synthesis

Louwe Kooijmans, L.P.

Citation

Louwe Kooijmans, L. P. (2005). The first farmers: synthesis. In . Amsterdam University Press, Amsterdam. Retrieved from <https://hdl.handle.net/1887/11179>

Version: Not Applicable (or Unknown)

License: [Leiden University Non-exclusive license](#)

Downloaded from: <https://hdl.handle.net/1887/11179>

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

THE
PREHISTORY
OF THE
NETHERLANDS

VOLUME 1

Edited by

J.P. Louwe Kooijmans



The Prehistory of the Netherlands

Volume I

Edited by

L.P. Louwe Kooijmans

P.W. van den Broeke

H. Fokkens

A.L. van Gijn

AMSTERDAM UNIVERSITY PRESS

The publication of this book was made possible by grants from:

- the Netherlands Organisation for Scientific Research (NWO)
- Archol BV, Leiden
- The Prince Bernhard Cultural Foundation (PBCF)

Cover illustration: Flint arrowhead from the Middle Bronze Age burial at Wasenaar, c. 1700 BC, see feature L, p. 459 (photo J. Pauptit, Faculty of Archaeology, Leiden University).

Cover design: Studio Jan de Boer BNO, Amsterdam

Lay-out: Perfect Service, Schoonhoven

ISBN 90 5356 160 9 (both volumes)

ISBN 90 5356 806 9 (volume 1)

ISBN 90 5356 807 7 (volume 2)

NUR 682

© Amsterdam University Press, Amsterdam 2005

All rights reserved. Without limiting the rights under copyright reserved above, no part of this book may be reproduced, stored in or introduced into a retrieval system, or transmitted, in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the written permission of both the copyright owner and the author of the book.

Contents Volume I

Preface 13

Introductory

- chapter 1 A prehistory of our time 17
Peter van den Broeke, Harry Fokkens and Annelou van Gijn
- chapter 2 The discovery of prehistory in the Netherlands 33
Ayolt Brongers
- chapter 3 Shaped by water, ice and wind: the genesis of the Netherlands 45
Kier van Gijssel and Bert van der Valk

Part I Hunters and gatherers

- chapter 4 Palaeolithic and Mesolithic: introduction 77
Wil Roebroeks and Annelou van Gijn 500,000 years ago to 5300 BC
- chapter 5 Neanderthals and their predecessors 93
Lower and Middle Palaeolithic
Wil Roebroeks
- chapter 6 The first 'modern' humans 115
Upper Palaeolithic
Eelco Rensink and Dick Stapert
- feature A A lost craft 135
flint tool manufacture in prehistory
Jaap Beuker
- chapter 7 From tundra hunting to forest hunting 139
later Upper Palaeolithic and Early Mesolithic
Jos Deeben and Nico Arts
- feature B A drowned land 157
Mesolithic from the North Sea floor
Leo Verhart
- chapter 8 Living in abundance 161
Middle and Late Mesolithic
Leo Verhart and Henny Groenendijk

5300-2900 BC

- feature C Mesolithic along the Overijssel Vecht 179
camp sites and burial pits at Marienberg
Ad Verlinde
- feature D Hunting camps in the swamps 183
the river dunes near Hardinxveld
Leendert Louwe Kooijmans
- chapter 9 Hunters and gatherers: synthesis 187
Jos Deebe and Annelou van Gijn
- Part II The first farmers**
- chapter 10 Early and Middle Neolithic: introduction 203
Annelou van Gijn and Leendert Louwe Kooijmans
- chapter 11 Colonists on the loess? 219
Early Neolithic A: the Bandkeramik culture
Marjorie de Grooth and Pieter van de Velde
- feature E Mines in the marl 243
the flint extraction at Rijckholt
Marjorie de Grooth
- chapter 12 Hunters become farmers 249
Early Neolithic B and Middle Neolithic A
Leendert Louwe Kooijmans
- feature F Stone Age farmers along the North Sea 273
the Rijswijk-Ypenburg cemetery
Hans Koot
- feature G Import from all quarters 277
stone axes in the northern Netherlands
Jaap Beuker
- chapter 13 Megalith builders and sturgeon fishers 281
Middle Neolithic B: Funnel Beaker culture and the Vlaardingengroup
Annelou van Gijn and Jan Albert Bakker
- feature H Funerary buildings from erratic boulders 307
the construction and function of the hunebedden
Jan Albert Bakker
- chapter 14 The fruits of the land 311
Neolithic subsistence
Corrie Bakels and Jørn Zeiler
- chapter 15 The first farmers: synthesis 337
Annelou van Gijn and Leendert Louwe Kooijmans

Part III **Mixed farming societies**

- chapter 16 Late Neolithic, Early and Middle Bronze Age: introduction 357 2900-1100 BC
Harry Fokkens
- chapter 17 From stone to bronze 371
technology and material culture
Jay Butler and Harry Fokkens
- feature I Opening up the peat bogs 401
the timber trackways of Drenthe
Wil Casparie
- chapter 18 Longhouses in unsettled settlements 407
settlements in Beaker period and Bronze Age
Harry Fokkens
- feature J Shell fishers and cattle herders 429
settlements of the Single Grave culture in Westfrisia
Willem Jan Hogestijn
- chapter 19 Mounds for the dead 433
funerary and burial ritual in Beaker period, Early and Middle Bronze Age
Erik Drenth and Eric Lohof
- feature K Barrow research and palynology 455
methods and results
Willy Groenman-van Waateringe
- feature L Bronze Age war 459
a collective burial at Wassenaar
Leendert Louwe Kooijmans
- chapter 20 Mixed farming societies: synthesis 463
Harry Fokkens

Contents Volume 2

1100-12 BC

- Part IV Increasing diversity**
- chapter 21 Late Bronze Age and Iron Age: introduction 477
Peter van den Broeke
- chapter 22 All-round farming 491
food production in the Bronze Age and the Iron Age
Otto Brinkkemper and Louise van Wijngaarden-Bakker
- feature M Salt makers along the North Sea coast 513
the production of salt for the hinterland
Peter van den Broeke
- chapter 23 Hamlets on the move 519
settlements in the southern and central parts of the Netherlands
Kees Schinkel
- chapter 24 Farms amongst Celtic fields 543
settlements on the northern sands
Otto Harsema
- feature N Dwelling mounds on the salt marshes 557
the terpen of Friesland and Groningen
Jaap Boersma
- chapter 25 Colonists on the clay 561
the occupation of the northern coastal region
Jaap Boersma
- feature O Oak or alder? 577
the use of wood in Iron Age farms
Caroline Vermeeren and Otto Brinkkemper
- chapter 26 On unsteady ground 581
settlements in the western Netherlands
Robert van Heeringen
- feature P Peat farmers 597
settlements on the peat to the south of the Meuse estuary
Marco van Trierum
- chapter 27 Blacksmiths and potters 603
material culture and technology
Peter van den Broeke

- feature Q Ancient attire 627
 remains of prehistoric clothing
 Willy Groenman-van Waateringe
- chapter 28 Urnfields and cinerary barrows 631
 funerary and burial ritual in the Late Bronze and Iron Ages
 Wilfried Hessing and Piet Kooi
- feature R *An alternative to the pyre* 655
 Iron Age inhumation burials
 Peter van den Broeke and Wilfried Hessing
- chapter 29 Gifts to the gods 659
 rites and cult sites in the Bronze Age and the Iron Age
 Peter van den Broeke
- feature S Bog bodies 679
 human remains from the northern part of the Netherlands
 Wijnand van der Sanden
- chapter 30 Increasing diversity: synthesis 683
 Peter van den Broeke

Conclusion

- chapter 31 The Netherlands in prehistory: retrospect 695
 Leendert Louwe Kooijmans

- Abbreviations 721
Literature 722
Location maps of regions and sites 797
Site index 807
Thematical index 813
Index of persons 832
Acknowledgement of the sources of illustrations 833
The authors 839

Note on the dates used in this book

Dates before 50,000 are based on various physical dating techniques, other than radiocarbon, and expressed as 'years ago'.

Dates in the period 50,000-10,000 years ago are based on uncalibrated radiocarbon dates and expressed as 'years ago' or 'years BP' (= Before Present).

Dates in the last 10,000 years are based on calibrated radiocarbon dates and expressed as 'years BC'. Only these dates can be equated with calendar or solar years.

See chapter 1, section 'periods and dates' for the principles of radiocarbon dating.

15 The first farmers: synthesis

Annelou van Gijn and Leendert Louwe Kooijmans

The previous chapters covering the various periods of the Early and Middle Neolithic have focused on specific aspects of these periods, such as the settlement system, the burial rite and the material culture. Such a period-based approach however provides insufficient insight into the diachronic developments that took place in the Neolithic, for example the Neolithisation process. These developments will therefore be discussed separately in the present chapter.

ARCHAEOLOGICAL CULTURES AND ETHNICITY

The Neolithic is a period in which the archaeological concept of culture works remarkably well. In this period the Netherlands comprised clearly delimited areas, each with its own material culture. Most of these areas are style provinces, distinguished on the basis of differences between specific types of pottery and decorative motifs. There is for example a clear difference between the TRB pottery of the area to the north of the major rivers and the pottery of the Vlaardingengroup to the south. There are no transitional types and very few problems arise in attributing pottery to these different cultures. These pottery provinces with their relatively sharp boundaries are much less easily recognisable in later periods. As for the meaning of these archaeological cultures, that is actually a difficult question. Archaeologists usually interpret differences in material culture in ethnic terms, basing themselves on anthropological evidence demonstrating strict links between the use of particular decorative patterns and specific ethnic groups.¹ Much of this anthropological evidence was however obtained in studies of ornaments, incised gourds and other perishable objects, whereas all that usually remains for prehistorians is flint and pottery. In recent years, the custom of equating archaeological cultures with social traditions and ethnic groups has excited much discussion, especially since anthropological studies have shown that the ways in which people express their identity in fact vary considerably, both in degree and in the materials employed for this purpose. The equation of material expression with a particular people has moreover acquired unpleasant connotations since certain pre-war German archaeologists, in particular Gustav Kossinna, misused archaeological evidence to corroborate the alleged superiority of the 'Aryan race'.²

Nevertheless, the concept of 'culture' still plays an important part in Neolithic research today. The existence of pottery provinces of course remains something which must be explained, only nowadays this is done on the basis of our more critical, modern understanding of the ways in which groups of people use their material culture to express group identity. An anthropological study among the peoples of the Baringo Basin in East Africa has shown that a greater diversity in decorative motifs observed in that area was in part related to food shortages.³ It could well be that the deliberate group expression of some Neolithic 'cultures' is likewise attributable to extraordinary stress on the communities in question. Are we, in the absence of transitional types between different pottery assemblages, to conclude that there were no, or only few, contacts between the potters, or were such contacts perhaps expressed in different categories of materials, such as clothing,

about which we are poorly informed? Could it be that there were contacts between TRB and Vlaardingen people which are not reflected in pottery styles?

A particularly intriguing problem is the meaning, in terms of social identity, of the differences between large, homogeneous pottery provinces with a clear style of their own, such as those of the *Bandkeramik*, Rössen, Michelsberg and TRB, and stylistically much less distinct groups such as the Swifterbant,⁴ Hazendonk and Vlaardingen groups. Apparently pottery played a more prominent, more explicit, symbolic role among the communities with a way of life that was in effect based entirely on farming than among the more 'transitional' groups whose subsistence system was (still) largely characterised by mobility and the exploitation of natural resources.

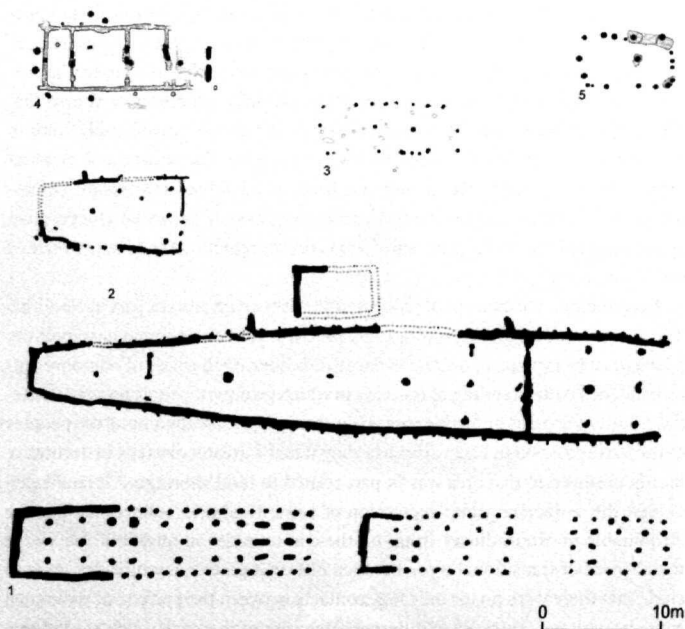
SETTLEMENT SYSTEMS

The Neolithic saw the transition from mobile hunter-gatherers to sedentary farmers, from communities that exploited the natural resources of a large region to people who concentrated on a relatively small area around their settlements, into which they put a lot of energy, creating pockets of cultivated land in the wilderness. This led to a contrast between natural and cultivated landscape, between 'the domestic' and 'the wild'.⁵ In an archaeological respect this is in principle observable in the changes that took place in the layouts of the settlements and the settlement system. Questions relating to permanent versus seasonal occupation, to base settlements versus special activity sites, to residential and logistic mobility⁶ are particularly important with respect to the Neolithic, as is the issue of the representative of the often scarce evidence. In practice, these questions are not so easy to answer, because the visibility of the settlements varies considerably from one landscape to another and from one period to another.

In the loess zone the beginning of the Neolithic coincides with the appearance of the typical *Bandkeramik* settlements, settlements that were used on a continuous

fig. 15.1
Development of houses during the Neolithic, from the large houses of the *Bandkeramik* and the Rössen culture to the small houses of Hazendonk 3, the TRB culture and the Vlaardingen group. All shown on the same scale (1:500).

- | | |
|----------------------|--------------------------|
| 5 Vlaardingen group | Haamstede-
De Brabers |
| 4 funnel beaker | Flögel-Eekhöltjen |
| 3 Hazendonk 3 | Wateringen 4 |
| 2 Rössen culture | Inden |
| 1 <i>Bandkeramik</i> | |



basis, for long periods of time. Their layouts varied, depending on the local conditions, from relatively open, like the settlements in the Merzbach valley in Germany, to fairly compact, like those on the Graetheide plateau in the Netherlands. Although the custom of building new houses on virgin soil at the periphery of the occupied area caused these settlements to shift slightly, they were essentially immobile. Each settlement had its own, restricted, territory which contained arable land, a water supply and wood for construction and fuel. We are able to distinguish more or less unambiguous clusters of equivalent settlements whose occupants, we assume, herded their cattle and exploited raw materials like hard stone and flint in a large, communal home range.

Although the Rössen settlement system was in many respects different from that of the *Bandkeramik*, the two are actually not fundamentally different. The settlements of the Rössen culture were more compact and were shifted more often, but they nevertheless remained in use for a period spanning several house phases. It is not clear whether the clustering of settlements and the associated social context were the same as in the preceding period.⁷ The smaller number of comparatively large houses points to larger basic social units, such as one or more extended families. We assume that the imposing *Bandkeramik* and Rössen dwellings were also material manifestations of the groups in the territories to which they laid claim (fig. 15.1). This assumption is based on the idea that in the vast wilderness a homestead will have symbolised the beginning of the 'domestication of the landscape'.

The 'ordinary' settlements of the Michelsberg culture are still largely unknown. We have no information on their size or layout, or on the length of time for which they were occupied. This could mean that the buildings were in use for shorter periods of time and were less solidly constructed, which would agree with the hypothesis that the Michelsberg groups manifested themselves in the landscape on a higher level of organisation. This hypothesis is based on the large, enclosed 'central sites', which are regarded as tribal centres rather than settlements.⁸ The large-scale shaft-mining centres (feature E) that have been found at sites far removed from one another may likewise – on an even higher level – be regarded as locations to which communities in a large area attached great significance. The Belgian site of Spiennes in Hainault was such a location for the 'Chasséo-Michelsberg' of northern France and southern Belgium, while the Rijkholt mines served a similar function for the Rhineland and northwest groups of the Michelsberg culture. The changes in scale and mobility observable in the settlement system may be related to integration with late hunter-gatherer communities, for which we however still have only little concrete evidence.

We have virtually no information whatsoever on settlements after the Michelsberg culture. Some of the mining centres remained in use and a few new ones were created, but the enclosed 'tribal centres' were abandoned after this period.

Most of our information on the settlement systems of the communities in the northern plain comes from the wetlands. There, people lived on river dunes, the banks of rivers and creeks, salt marshes and coastal dunes. The earliest occupation phases are less well-known owing to erosion and sedimentation, but we seem to be obtaining more and more evidence suggesting that the settlement pattern in those phases was the same as that known from the later Vlaardingen period.⁹ The crucial question is whether these areas were occupied by separate communities that specialised in the exploitation of the delta, or by groups who exploited both the sandy soils and the delta. In the wetlands proper, the locations and the small sizes of the sites and the nature of the finds give the sites a rather Mesolithic appearance. The same holds for sites where no features – or at most clusters of thin

stakes – have been found: they are all sites where hunting and fishing dominated to varying extents and where no cereal will have been grown. They seem to have been non-permanent special activity sites in settlement systems based on the exploitation of different ecozones.¹⁰ These sites show considerable logistic mobility, but, as in the case of the Swifterbant sites on the creek system in Flevoland, also the seasonal shifting of base camps. The main settlements of these communities lay elsewhere, but exactly where we do not yet know. It is likely that the 'dry' settlements were situated at the margins of the sandy areas and in stream valleys, where the old land surface now lies buried beneath thick layers of Holocene deposits,¹¹ but they may also have lain in the drier parts of the delta, for example on the coastal dunes and the levees in the river clay district. At such locations permanent occupation will have been possible. The distinctly agricultural nature of the evidence and the features of small, rectangular houses that have been found at some of the settlements at these locations indeed suggest that these settlements were permanently occupied.¹² The settlements in question were incidentally small, comprising not more than one or two houses, which were used for a relatively short time. In this respect they resemble the settlements that can be inferred from the scarce evidence available for the higher sandy soils. But alongside these settlements there were also special activity sites at many different locations, at which hunting and fishing continued to be practised throughout the entire Middle and Late Neolithic, until the end of the Beaker period.¹³

The many Michelsberg sites that have been discovered in the valley of the Meuse in Limburg have yielded extremely little information on settlement layout and the settlement system. At many of the sites that were found in surveys material from different periods had become mixed, and very few features were found at the small number of sites that have been excavated. By analogy with evidence obtained in Germany, it is thought that the TRB settlements of the central and northern parts of the Netherlands had a short life and were small, consisting of a single small house which was constantly rebuilt at a considerable distance from its predecessor. Such a high degree of residential mobility can be connected with a form of arable farming known as 'shifting cultivation', which is thought to have comprised ploughing, but no manuring, as a result of which people had to shift their settlement every time they had exhausted the surrounding land. Special sites, such as that of Anloo with its 'cattle pen', were more fixed elements in the settlement system. In the area around the Veluwe the internal arrangement of these first pockets of cultivated land in the relatively fertile, damp areas along the lower courses of the streams, and their later expansion in the Beaker period can be inferred from the distributions of TRB remains and the later Beaker barrows. In Drenthe we see how territories were claimed and marked as ancestral land by means of one or more *hunebedden*; in the Beaker period individual barrows were to take over this function from the *hunebedden*.

To summarise, the evidence available for the farmers in the loess zone seems to indicate increasing residential mobility and expansion of the social territories. Our understanding of the communities to the north of the loess and the low mountain ranges is still very poor. Sites in various parts of Europe have yielded evidence pointing to the emergence of more sedentary hunter-gatherer communities, such as cemeteries and settlements that were unmistakably used for long periods of time, but no such evidence has yet been found in the Netherlands. Another issue on which we have no information is the extent to which the slightly more visible territoriality and mobility of the small-scale settlements of the TRB culture differed from those of the preceding period. It could well be that the differences were actually fairly small. The fact that the wetlands of the delta continued

to be exploited from seasonal camps throughout this entire period suggests that Mesolithic traditions persisted for a long time.

All over the Netherlands the clearances that had been created in the primeval forest for the first agricultural settlements were gradually expanded, in the loess region from the *Bandkeramik*, in the southern sandy zone from the Michelsberg culture and in the north from the TRB culture onwards, but the forests continued to dominate the landscape until the end of the Middle Neolithic.

WAY OF LIFE AND ECONOMY: THE NEOLITHISATION PROCESS

The only way in which we can gain an understanding of the developments that took place in the Netherlands and surrounding areas in the Early and Middle Neolithic is by viewing them in the wider context of the course of events in northern Europe as a whole. Parallel developments took place in Great Britain and southern Scandinavia. Throughout the British Isles¹⁴ the Mesolithic was around 4000 BC rather abruptly replaced by an Early Neolithic showing close affinities with contemporary cultures in the adjacent part of the continent. For a long time this transition was attributed to the immigration of farmers, but this interpretation model was ultimately rejected, primarily on the grounds of the complete 'disappearance' of the Mesolithic, the rapid diffusion of all the new phenomena to areas high up north and the impossibility of identifying a convincing area of origin of the alleged immigrants. It is now generally assumed that the native hunter-gatherer society underwent this drastic transformation within a short space of time.

In southern Scandinavia,¹⁵ the Ertebølle culture, known from its *kjökkenmøddinger*, or large shell middens, evolved around the same time as the Swifterbant group in the Netherlands. Besides two general similarities between the two – the technology and basic shape of the pottery and the use of the perforated Rössen axes – there are also fundamental differences: the flint industries are entirely different and Ertebølle sites have yielded no evidence whatsoever for animal husbandry

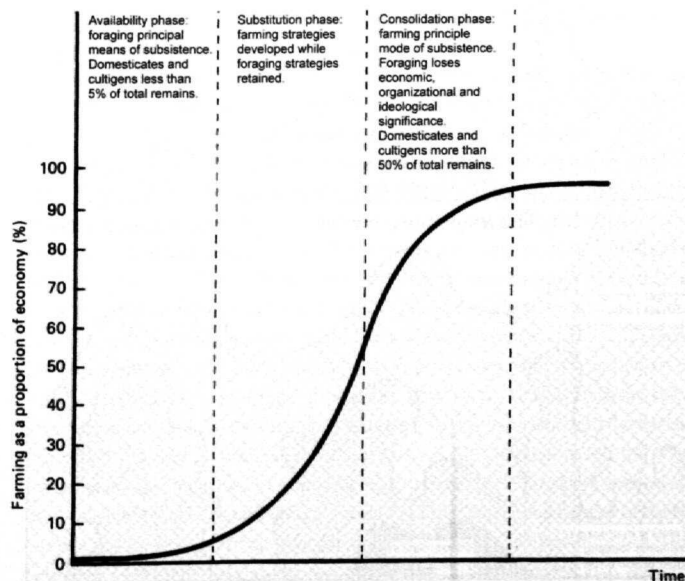


fig. 15.2

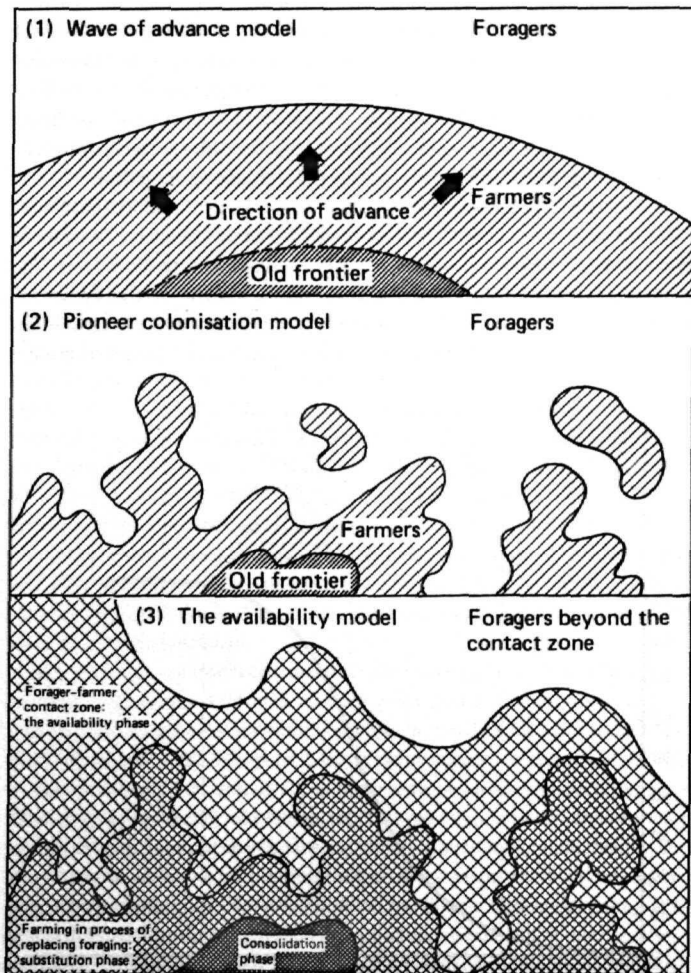
The 'availability model' developed by Zvelebil (1986) for the transition of the hunting-gathering way of life to agriculture. The S-shaped curve represents an ideal situation. The shape of the curve is under actual conditions determined by the length of the phases. The three phases were more or less arbitrarily defined on the basis of the ratios of bones of wild animals and domestic animals encountered at the settlements, with limits at 5% and 50%.

or the use of cereal. In Scandinavia, too, the years around 4000 BC saw a rapid transition to a farming culture, that of the TRB, which, even though it shows close stylistic links with areas further south, is nevertheless assumed to be essentially the outcome of a native development.

In both Great Britain and Denmark large, prestigious barrows were in this Early Neolithic erected for prominent members of society, and enclosed central sites resembling those of the Michelsberg culture described above were constructed for ritual purposes. We may speak of a convergence of the developments in the loess zone and those in northern Europe. Similar developments took place in the area of the northwest group of the Michelsberg culture in northern Belgium and the southern part of the Netherlands, except that no long barrows or enclosed sites were constructed there. The area of the Swifterbant culture, which seems to have extended to the Elbe, however shows different developments. Here the incorporation of animal husbandry and the cultivation of cereals in the broad-spectrum economy, around 4200 BC or possibly earlier, was not accompanied by drastic cultural changes. In this area the old cultural tradition was replaced by the TRB only around 3400 BC.

fig. 15-3
Three spatial models for agriculture frontiers,
after Zvevibel 1986.

- 1 A frontier that is constantly advancing as a result of population growth and migration of the farming communities, the 'wave of advance' model developed by Ammermann and Scavalli-Sforza.
- 2 New settlements as centres of development beyond the front line of the farming community, the 'pioneer settlement' model proposed by Dennell.
- 3 Exchange of knowledge between hunter-gatherers and farmers on either side of a front line, the 'availability' model developed by Zvevibel.



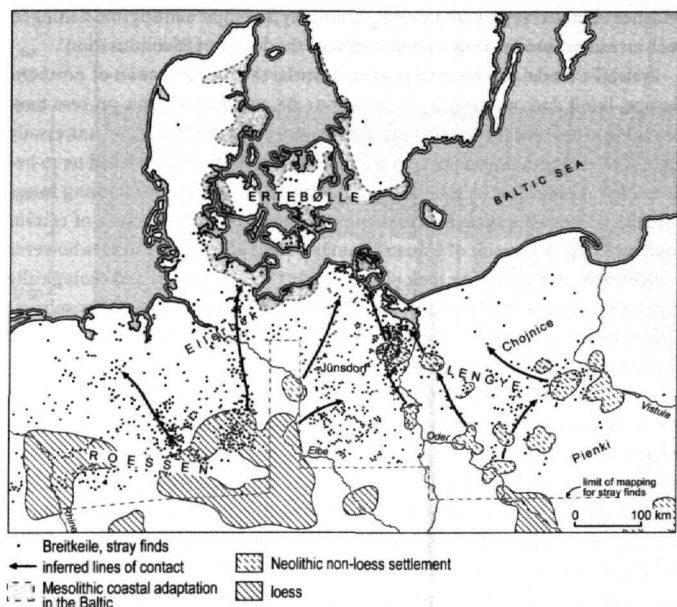


fig. 15.4
 Distribution of Rössen Breiðkeile in northern Europe to the north of the loess zone, the result of exchange relations between the northern hunter-gatherers and the farmers further south.

All in all, this information constitutes a – still very incomplete but nevertheless sufficiently empirical – basis for a simple descriptive model for this period, which provides a geographical and chronological framework for the Neolithisation process. The period can well be described with the aid of a number of concepts introduced by Zvebil, who distinguished three phases in the process of the introduction of farming (fig. 15.2):¹⁶

- an ‘availability’ phase, in which the new customs were known, but were not yet adopted;
- a ‘substitution’ phase, in which farming was adopted;
- a ‘consolidation’ phase, in which the communities derived their sustenance predominantly from farming.

Zvebil fixed the boundaries between the three phases at 0% and 50% bones of domestic animals in the overall faunal spectrum, which are of course entirely arbitrary boundaries, but the same would hold for any other boundaries.

A similar distinction can be made in geographical terms within a single (short) period: we can distinguish availability, replacement and consolidation zones (fig. 15.3). The boundaries between these zones may be very sharp, they may remain stationary for long periods of time and they may be ‘impermeable’, in the sense that the communities on either side had very little (archaeologically traceable) contact. Or the boundaries may be ‘permeable’ and/or mobile, in the sense that there is evidence for contacts and/or the boundary shifted over time. In the Netherlands, this frontier was in essence stationary during the *Bandkeramik* and the Rössen cultures, but became increasingly ‘permeable’ (fig. 15.4). The Swifterbant culture represents a long replacement phase. This phase came to an end with the development of the northwest group of the Michelsberg culture in the southern part of the country and the appearance of the western group of the TRB culture in the north, but it seems to have continued until the end of the Vlaarding culture in the wetlands. It is however difficult to apply the above concepts to communities with a complex settlement system. For example, in the case of the wetlands, the ample

evidence obtained at the various settlements may highlight hunting and fishing to such an extent as to cause us to underestimate the degree of 'Neolithisation'.

Zvelebil's model can be aptly used to describe the Neolithisation of northern Europe, but it does not provide an answer to the question why this process took place. We now know for certain that farming was not immediately and universally embraced as a path to progress, as the old evolutionist outlook wished us to believe. New Archaeologists tried to explain the gradual adoption of farming by assuming, first of all, population pressure and, later, the disappearance of certain food resources as a result of climatic change.¹⁷ Neither of these theories however explains why this transition took place in such a vast, culturally and ecologically highly diverse area within such a short space of time. Moreover, no other subsistence system will have been more resistant to small-scale environmental disasters than a broad-spectrum economy.

At present, the Neolithisation process is interpreted largely in terms of social acceptance: it is thought that crop cultivation and cattle keeping were first adopted by prominent members of society, such as lineage heads, after which the new practices were rapidly and widely imitated, in an atmosphere of social rivalry. The management of exotic animals and crops may have granted group leaders as much prestige as the possession of beautiful axes made of exotic types of stone.¹⁸ The expansion of the range of food resources moreover implied less risk of food shortages, but that is a functionalistic argument. Something else we should consider is that intensive hunters and gatherers who were already practising systematic faunal management will have seen crop cultivation and cattle keeping not as exceptionally novel activities, but rather as more intensive versions of practices with which they were already familiar. By this time people had for example been keeping dogs as domestic animals for several millennia already.

The above arguments provisionally put an end to the debate concerning the interpretation of the transition to the farming way of life, but there is in fact another side to this problem and that is the question why some people did not (immediately) take this step and why – in the many centuries after 5300 BC – communities with different economies continued to live side by side.

FORAGERS AND FARMERS SIDE BY SIDE (fig. 15.5)

To obtain some understanding of such situations we can turn to recent hunter-gatherers or to descriptions of past communities of foragers and the reinterpretation of their status in the so-called revisionism debate in anthropology.¹⁹ For many years such peoples, for example the pygmies, the African Bushmen and the North American Inuit, were portrayed as idealized hunting communities and it was incorrectly assumed that contacts with nearby farmers or 'more advanced' cultures further afield were a recent (acculturation) phenomenon that could be glossed over. Some foragers prove to have maintained close relations with nearby farmers for hundreds, possibly even thousands, of years. They exchanged ideas and goods with one another and from time to time the foragers even practised crop cultivation or animal husbandry themselves, too, or went to work for the nearby farmers. These additional activities formed an integral part of their traditional way of life and indeed seem to have contributed to their survival. Many hunter-gatherers prove to have voluntarily adhered to their traditional lifestyle instead of switching to a way of life that would have afforded them greater material property, among other advantages.

It would seem that we may apply such a view to the Neolithic frontline in north-

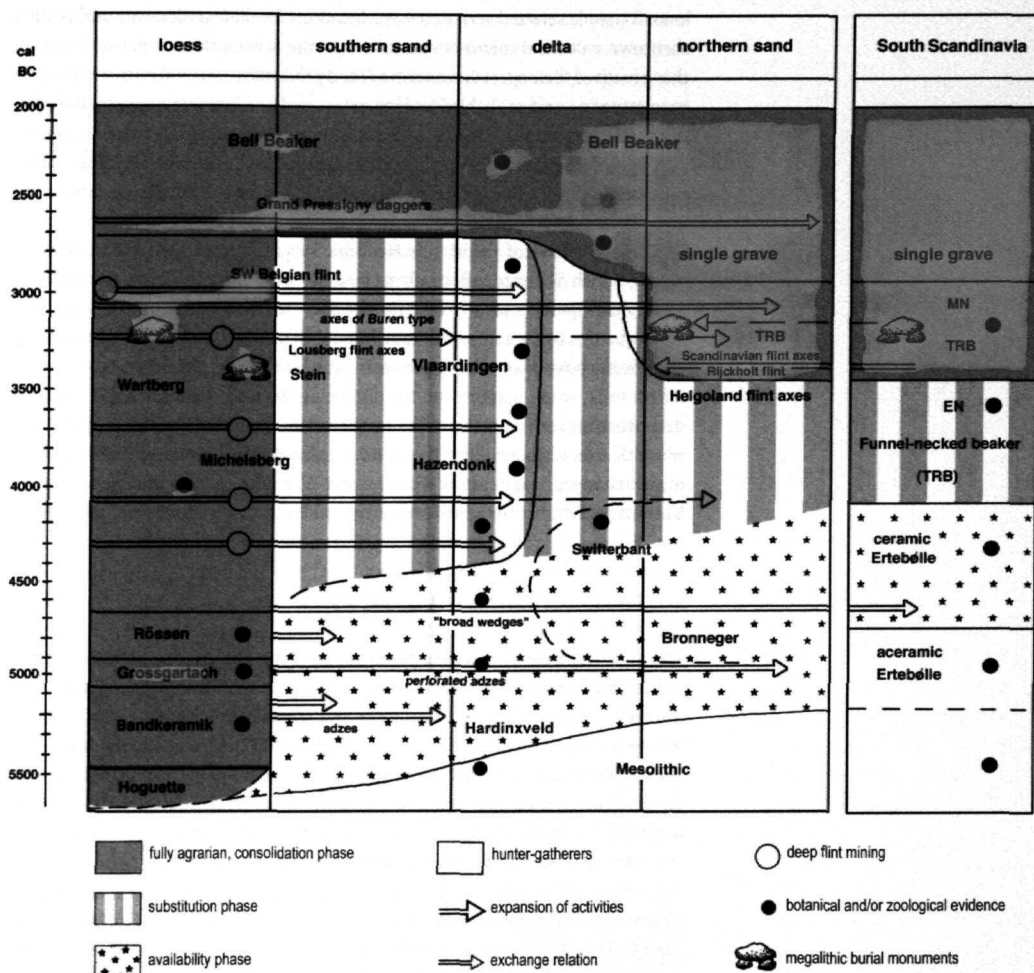


fig. 15.5
Schematic representation of the relations between the Neolithic communities in the loess zone (left) and those to the north of it (right) as reflected by imports of specific types of artefacts and stone. Also indicated are the periods and areas for which zoological and botanical evidence on subsistence is available.

ern Europe, too. The principle of a symbiotic relationship chosen by the native population itself is an attractive explanation for the long 'availability phase' and the subsequent equally long 'replacement phase' in which certain - selected - Neolithic achievements were adopted. The great difference in the origins of the two communities and the associated differences in ideology and attitude towards the environment reflected by the archaeological evidence may have been important factors in this context.²⁰ On the other hand it is also known that considerable cultural differences, such as those between Papuans and Westerners, need not always prevent the rapid acceptance of cultural elements. But in these cases the nature of the contacts were different from those at issue here. The Late Mesolithic foragers descended from the Late Glacial *Federmesser* and tanged point groups. They had evolved a way of life based on the appreciation of a broad spectrum of food resources available in the rich, varied environment in which they lived. The *Bandkeramik* way of life, on the contrary, originated in the southeast and will have assimilated ideas and values from groups in southeast Europe, whose ideology was ultimately rooted in that of the earliest farming communities of the Near East. The two lifestyles first came into contact with one another around 5300 BC. The *Band-*

keramik people selected very stereotypic locations for their settlements and created their own cultivated micro-environments in the dense primeval forest, in which they practised their specialised form of food production. It could be that differences in attitude – and probably ideology too – acted as a barrier to the acculturation of the two communities and were partly responsible for their continued existence side by side. What is however difficult to explain is why the Late Mesolithic communities in Central Europe seem to have been far more receptive to innovations in an earlier stage of the Bandkeramik.

The final phase of the Middle Neolithic saw important agricultural developments, which Sherratt collectively termed the 'secondary products revolution'.²¹ These developments involved the further domestication of nature. They were the consequences of the taming (domestication) of animals, namely breeding for the specific purpose of obtaining products for which the animals did not have to be killed: milk, wool, manure and traction being the most important. We have evidence for the use of wool and milk from an early stage of the Neolithic already, but it was only around 3000 BC that the ox-drawn plough and wagon were to bring about drastic changes in agriculture which were to affect the entire farming community. This marked the first step in the expansion and mechanisation of farming.

SOCIETY

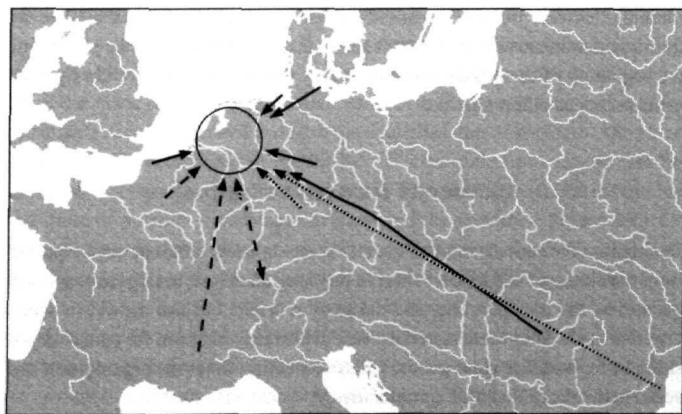
It is not so easy for us to form a picture of Neolithic society. That is because there are no good reference points that we could use to compose such a picture. Our understanding of the Late Palaeolithic and Mesolithic is largely – and probably wrongly – based on evidence from groups like the Nunamiut and the Indians of the northwest coast of America, respectively, while our picture of Bronze and Iron Age societies is predominantly based on alleged similarities between their lifestyle and the historically known early twentieth century farming life. For the Neolithic there are however no attractive ethnographic analogies and we are hence primarily dependent on the archaeological evidence itself. There are arable farmers who still practise hoe agriculture today, for example in the Amazon and Orinoco Basins, New Guinea, Malaysia and other remote corners of southeast Asia, but their tropical contexts make them less suitable models for the Neolithic farmers of Northern Europe. The closest parallel is afforded by the original Indian farmers of northeast America, such as the Iroquois.²² Most experts have for this reason avoided statements on Neolithic society. A few have ventured to propose imaginative reconstructions like that of the sturgeon fishers of the Vlaardingen group, dating from the 1950s (plate 24A). Our present understanding of Neolithic society is possibly somewhat romantic: the reconstruction of the farmstead on the edge of a dune in the coastal area is too idyllic (plate 24B). Like all archaeological interpretations, it is strongly influenced by the spirit of our times.

Because of this absence of a suitable analogy and the shortage of evidence shedding light on the social structure, we actually know very little about most of the Neolithic societies and the changes they underwent. An exception are the Bandkeramik communities, for which we have both a few cemeteries and a large amount of detailed settlement evidence. Modest differences in status and power have been expressed in the grave goods. The status was probably achieved, based on personal prestige or abilities achieved during one's lifetime. It is furthermore thought that the storage of the harvests was concentrated in a small number of households which consequently enjoyed a higher social position. The grave goods show no differences between men and women as far as the value of the goods is

concerned, but they do differ in nature: men were accompanied by objects connected with strenuous woodworking and hunting, women by objects associated with crop cultivation and fertility. The communities were probably organised in kinship groups: families who traced their descent from a common ancestor and who lived close together on and around a communal yard. A number of such farmsteads together constituted a village. These villages were grouped in clusters, like that on the Graetheide in southern Limburg, and these clusters had contacts with one another. We can thus distinguish a spatial hierarchy, to which we would like to attribute a social meaning, which we are however unable to define or specify. We emphatically avoid using the term 'tribe'. One thing that is certain is that society was strictly ordered in the *Bandkeramik* period, unlike in the subsequent periods. This may have been a consequence of, first of all, the *Bandkeramik* people's colonist status and, later, their position relative to that of the Late Mesolithic hunter-gatherers living in their surroundings.

Even less can be said about social aspects of the later Neolithic communities, for which we have extremely little burial or settlement evidence. As far as the Michelsberg culture is concerned, the large central sites point to the existence of a level of organisation above that of the settlement. It is now furthermore believed that the large mining centres, such as those of Rijckholt and Spiennes, were not controlled by local groups, but were freely accessible to a very large community.²³

The Swifterbant communities are thought to have been poorly stratified, like their Mesolithic predecessors. They were definitely characterised by less social ranking than the farming communities in the south. It is only with the TRB culture that we begin to regain some understanding of social organisation in this area. On the whole, the TRB communities seem to have been fairly egalitarian, too, although it was apparently possible for some individuals to distinguish themselves, for example in the construction of *hunebedden*. The evidence for long-distance exchange and the ritual deposition of axes of the northern rectangular type suggests that a few members of society indeed enjoyed a slightly higher status. But this status is not reflected in any recognisable form in the burial rite.



- Early Neolithic
 - Spondylus shells (Mediterranean)
 - amphibolite (Central Europe) and basalt (Eifel) adzes
 - jadeite axes (western Alps)
- - - Middle Neolithic A
 - Romeigny-Léhry flint (northern France)
 - Rijckholt flint (export as far as Bodensee)
 - axes made from Danish flint
 - Helgoland flint
 - silica geode (Harz)
- Middle Neolithic B
 - Grand Pressigny flint (western France)
 - copper spirals (southeast Europe)

fig. 15.6

The origins of artefacts made of exotic materials that were not regionally available in the Early and Middle Neolithic. See fig. 31.8 for the later periods.

	late meso	EN A LBK	EN B Rössen	MN A MK	MN B WSV	LN Beaker
Wommersom - quartzite						
'light gray Belgian'						
Rijckholt, eluvial						
Rullen, eluvial						
Rijckholt, mined						
Valkenburg						
Simpelveld						
axes Buren type						
Lousberg axes						
terrace gravel						
Romigny - Léhry						
Grand Pressigny						

fig. 15.7
Survey of the types of flint and artefacts most frequently used in the Lower Rhine Basin in the successive phases of the Neolithic.

The Neolithic hence seems to be characterised by communities in which a few individuals possibly gained personal status through special achievements. The communities were probably organised in kinship groups who traced their descent from a common ancestor. Important social changes were not to take place until the beginning of the Beaker period. It is only then that we observe the signs of increased social differentiation.

EXCHANGE NETWORKS (fig. 15.6)

Throughout the entire Neolithic, materials were in many different ways exported from their areas of origin, over short to very long distances, in large to very small quantities. The transport lines and the areas of origin, but also the way in which artefacts made from these materials were deliberately intended for (ritual) deposition or for burial as grave goods, tell us something about the organisation and social networks of Neolithic communities.²⁴

The chief aim of short-distance transport was to supply indispensable raw materials to regions where they did not occur naturally, such as flint and hard stone for the manufacture of querns and grindstones in the delta (fig. 15.7). This service was supported by the communities' own mobility in the context of, for example, seasonal migrations or special expeditions. The use, in the south of the Netherlands, of flint collected from the gravel deposits of the Meuse and the use of erratic flint in the north raises no questions. The occupants of Hekelingen, however, used

fresh flint from a chalk region in such large quantities that we assume that they had direct access to the flint sources in question, which probably lay along the French Channel coast, some 150 km from their settlement.²⁵

In addition to these fairly local raw material transport lines we can also distinguish patterns on a larger scale involving materials whose value was based largely on their distant provenance, such as axes of high quality, unusually coloured types of flint. They were distributed within traditional culture areas, but in some cases also far beyond their borders. The latter holds in particular for materials with an exclusively ascribed value, such as haematite, amber, jet and copper.

The contacts implied by these networks, or 'interaction spheres', may have been maintained by leading members of the communities, who are sometimes – somewhat exaggeratedly – referred to as an 'elite'. These leaders may have corroborated their position by exchanging exotic goods within their own circles and/or using such goods in (ritual) depositions on behalf of the group which they represented. Another possibility is that a much larger proportion of the community participated directly in the exchanges without there being any question of redistribution. It is generally assumed that the chief mechanism behind these exchange networks between the sedentary, territorially organised farming communities was a form of down-the-line exchange, via which objects were transported step by step, passing from hand to hand and becoming increasingly exotic and desirable as the distance from their sources increased. This form of exchange hence differed from the distribution of exotic materials by hunter-gatherers, in which group mobility played a dominant part. In the case of the farming communities, too little attention is still being paid to the possibility of different – possibly less organised – forms of mobility, for example of individuals or of groups of a certain age who, as part of their personal training, went out into 'the world' to return to their community after acquiring experience and material evidence of their journeys far afield.²⁶

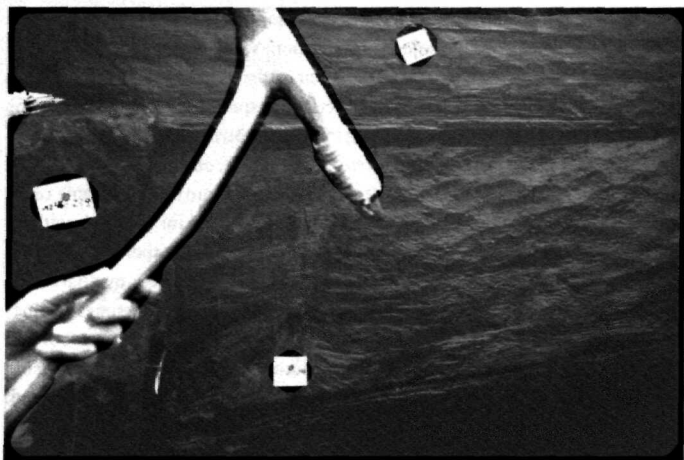
Our understanding of the larger-scale social networks is of course highly rudimentary. Only objects made of virtually imperishable materials can be recovered by archaeological means, and then chiefly those that were deliberately buried in the ground, as grave goods or in hoards. Highly valued materials will rarely have been lost or discarded.

There were very long lines of contact between *Bandkeramik* communities, through which ornaments made of *Spondylus* shells from the Adriatic or even the Black Sea made their way into Western Europe. In the lower Rhine region these ornaments have not survived owing to the decalcification of the loess. The stone adzes that have been found in the *Bandkeramik* area came from regions less far away: those of basalt and amphibolite possibly from the middle Rhine mountains and those of phtanite from central Belgium and the Ardennes. Rössen *Breitkeile* made their way to the northern communities, covering many hundreds of kilometres (fig. 15.4).²⁷ Jadeite axes have been distributed in the Middle Neolithic from a source in the western Alps all over Western Europe. From there these axes were distributed across the whole of Western Europe, even into Scotland. Rijckholt flint was transported from Limburg to Hessen in Germany and incidentally even deep into southern Germany. The occupants of Limburg in turn imported large flint blades from the surroundings of Reims, from the outcrops of Romigny-Léhry.²⁸

As far as the Middle Neolithic is concerned, the copper spirals that were found in the *hunebed* of Buinen demonstrate contacts with Bohemia or possibly even the Balkans. Amber may have been picked up locally, along the coast or from ice-pushed Tertiary clay deposits in Overijssel, but that found in TRB contexts may well have come from Scandinavia and the same holds for large lumps of amber like that found in the cemetery of Swifterbant S2. The coast of northern France

fig. 15.8

Reconstruction of a Bandkeramik adze with the lining of the Kückhoven well in the background (see plate 14A). The planks of the lining were made by cleaving the trunks of sturdy oaks and shaping them with the aid of adzes.



has been suggested as the source of the jet, the Rhineland and the Ardennes as that of the haematite or red ochre. The TRB people imported flint axes from southern Scandinavia and Helgoland in northwest Germany and axes made on quartz geodes from the German Harz mountains, but also axes of the Buren type from Belgium.

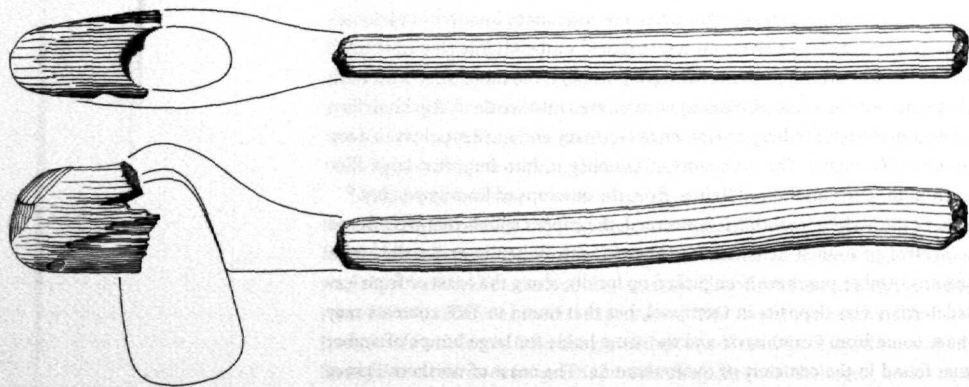
The continuous exchange of exotic materials that can be inferred from these materials' distribution patterns was – throughout the entire Neolithic – supported by networks of continuous social relationships which tell us that the communities were all in close contact with one another and that the horizons of the local communities were wider than is often assumed.

TECHNOLOGICAL DEVELOPMENTS

The Neolithic saw major technological innovations, which can be related to the changed, more sedentary, way of life and to the development of farming. Felling trees, woodworking and timber construction were important activities, as testified by the remains of houses, palisades, (bog) trackways, wagons with solid disk wheels, ploughs and, last but not least, the unique Bandkeramik well of Kückhoven (plate 14A, fig. 15.8).²⁹ The axe was the tool *par excellence* for both woodworking and felling trees. In the course of the Neolithic the axe was perfected through various

fig. 15.9

Haft and head of two different axe handles from the Vlaardingen 1b level at the Hazendonk, combined to reconstruct a Neolithic axe. Scale 1:4.



technical innovations affecting the blade, the haft and its attachment (fig. 15.9). Although the odd Mesolithic community (in Ireland and southern Scandinavia) had already produced simple polished axes, it was only in the Neolithic that man learned how to saw and drill hard stone and how to grind the even harder flint. Antler sleeves absorbed the heavy blows of the axes and prevented the risk of the ash hafts splitting.

Flint and stone remained of primary importance for the manufacture of all kinds of tools until in the Bronze Age, but the range of flint tools underwent fundamental changes reflecting a different attitude towards materials and tools, though it is difficult for us to determine whether the changes served a functional purpose or whether they had a symbolic value. The Early Neolithic range of flint tools is highly standardised, comprising clearly distinct types, the majority of which were intended for specific purposes. The tool kits of the early part of the Middle Neolithic, which were now made from mined flint, also included simple flakes made on local flint, which is regarded as a sign of continuity of Late Mesolithic traditions. Around the beginning of the Middle Neolithic B, c. 3400 BC, conspicuous changes took place in both the TRB culture and the Wartberg-Stein-Vlaardingeng complex. Imported tools and blades disappeared entirely or almost entirely and both the size of the tools and the range of types decreased. The small disk scraper came to be the dominant tool type and in the flaking technology the emphasis increasingly shifted from the overall tool to the working edge.³⁰ Progressively less attention was hence paid to the procurement of high-quality raw materials and to the tools' design. But impressive examples of flint workmanship from the Beaker period, such as the Grand Pressigny daggers, the Early Bronze Age Scandinavian daggers and the carefully designed points, show that the technology was not lost and that exotic flint continued to be highly valued. In the Beaker period we discern a dichotomy between a 'casual' (*ad hoc*) technology for everyday tools and top-quality workmanship by specialist craftsmen for very special, prestigious artefacts.

Pottery was the first man-made material having different properties than the raw material from which it was made. Owing to its fragile nature, this novel material was however only suitable for use by more or less sedentary communities. Pottery will have replaced, or at least supplemented, all kinds of containers of perishable materials such as bags, baskets, hampers and wooden bowls. Illustrative in this respect is the fact that the earliest northern pottery was built from coils of clay, suggesting that its structure was copied from that of baskets and hampers made of wicker and coils of plant fibres.³¹

Throughout the entire Early and Middle Neolithic the pottery was shaped by hand and fired over open fires. The ceramic from the *Bandkeramik* period is already of good quality: its regular shapes, thin walls and fine, smooth finish show that it was made with great care. Particularly fine is the pottery of the Rössen and Michelsberg groups, the TRB and the later Beaker cultures. That of the northern 'transitional' communities, i.e. the Swifterbant, Hazendonk 3 and Vlaardingeng groups and also the Stein people in the south, is however much poorer. The pottery of these groups is functional, but very simple in terms of technology, design and style.

WHAT NEXT?

The Neolithic has always held a special fascination, with its communities that are not as exotic and as far removed from us as the hunter-gatherers of the Ice Age, but that are neither as 'recognisable' as the mixed farming communities of the Bronze

and Iron Ages. The Neolithic is also a period of major changes and important innovations (the invention of the wheel for example!), in which the first pockets of cultivated land were created in the otherwise virtually unspoilt nature. We now have a fairly good chronological and geographical view on this period of roughly three thousand years. Thanks to the expansion into the borders of the Netherlands of cultures that had been known for a long time (such as the Rössen and Michelsberg cultures), the discovery of entirely new units (such as La Hoguette and Limburg), which have made the Neolithic world more complex but also more interesting, and the definition of various phenomena specific to the Low Countries, such as Vlaardingen/Stein, Swifterbant and Hazendonk 3, the enormous hiatuses that formerly seemed to exist between the *Bandkeramik* and the TRB culture have largely been filled up, in a material respect at least. Although our understanding of the Neolithic is based on a very small number of sites and evidence from an even smaller number of excavated settlements, the gaps that still remain in the sequence for the Low Countries are actually quite small. A serious handicap and a major source of frustration in setting up a synthesis for the Neolithic are however the tremendous qualitative differences between the distinguished phases and regions, which are largely attributable to the frequent absence of burials and settlement features and, hence, of the information that can be derived from these sources, and the restriction of ecological and biological evidence to the delta and the odd site with favourable preservation conditions elsewhere. A great problem for archaeologists in the Low Countries is hence having to discount these huge differences in the – scarce – evidence in translating the *descriptive model* (what, where, when?) into a dynamic model. But at least we now have some idea of the developments, the transformation processes. There was clearly an area of tension between the south and the north, between the southern farmers and the northern foragers, both of whom were involved in a protracted process of interaction and drastic change which spanned the entire Neolithic. In spite of the tangibility and recognisability of the *hunebedden* and the flint mines and the 'historical experiences' evoked by some astonishing finds from the delta,³² it is becoming more and more clear to us that these communities and their relationships with one another were in fact quite unique, with very few parallels in the ethnographic sources. And yet it is precisely anthropological considerations that help us understand *why* processes took place in the ways we believe we may infer from the evidence and *why* the 'Neolithisation' of Northwest Europe was seemingly such a protracted process.

There is little else for us to do but continue along the course we have taken and expediently take advantage of discoveries and process the information obtained at individual sites in thematic and regional studies.³³ Botanical and zoological research will remain of fundamental importance. It has moreover been found that much useful information can be obtained in microwear analyses of flint, both from the sites with poor archaeological records in the higher parts of the Netherlands and from the wetlands. Future regional research should focus on the former peripheries of the delta, which now lie buried beneath several metres of Holocene deposits. Thematic studies should be initiated in the fields of pottery technology, combined analysis of residues and use-wear traces, the location of flint sources and the further systematic analysis of the wide range of axes. Over the past few years, research into the Neolithic has benefited much from studies of material remains, but also from theoretical approaches which have shed a fresh light on the relations between farmers and foragers and the meaning of the archaeological remains of the material culture, and which have made us adopt a more critical attitude towards the relations between what we actually have, in archaeological terms, and what there once was.

NOTES

- 1 Binford criticised the normative character of the archaeological concept of culture in 1965 already. Hodder (1977, 1982b) showed that ethnic groups express their social identity in different ways. Another problem that has led to discussions is the difficulty of defining the boundaries of cultures: the distributions of finds to a great extent dictate where boundaries are drawn, while the views of researchers determine where the boundaries are drawn in the case of transitional forms.
- 2 Van der Waals 1969.
- 3 Hodder 1985.
- 4 Raemaekers 1999.
- 5 Hodder 1990.
- 6 Binford 1982.
- 7 The only clearly distinguishable *Bandkeramik* settlement clusters are those which have been found on the Graetheide; most *Bandkeramik* settlement clusters are not or only very vaguely recognisable. The latter is always the case with settlement clusters of the Rössen culture. Apparently the available space was more equally used in the Rössen period and the 'empty' zones were filled in in a manner resembling that inferred by Kruk (1980) for the *Bandkeramik* and Lengyel periods in the Little Poland uplands.
- 8 The term 'tribal' is here used in the broadest sense, to refer to a regional group with a common identity and little social ranking.
- 9 This hypothesis, and also the impression that our picture of the early settlement patterns was highly distorted owing to factors of preservation and discovery, was confirmed by the discovery of the Hazendonk 3 farming settlements at Rijswijk and Wateringen (site 4) (Raemaekers 1999). The long, continuous use of the river dunes and of locations like P14 is also an argument for assuming that the settlement system did not change much.
- 10 The substantial differences in the sources of the various types of flint found at the Vlaardingen sites are a strong argument for assuming that there were closer contacts between these sites and their hinterlands than between the individual sites themselves (Van Gijn 1990; Louwe Kooijmans 1987, 1993).
- 11 Some examples are: Hoogeveert (southern Flevoland, Late Mesolithic/Swifterbant 1, Hogstijn *et al.* 1995); P14 (Noordoostpolder, Swifterbant 3 - Single Grave culture, Ten Anscher/Gehasse 1993, Gehasse 1995), Stenendam and Bornwird (Friesland, TRB/Single Grave culture, Fokkens 1982); Gassel and Kraaienbergh (North Brabant, Hazendonk 3 and northwest Michelsberg, Verhart/Louwe Kooijmans 1989; Louwe Kooijmans/Verhart 1990).
- 12 Although Verhart (1992) prefers the alternative - seasonal occupation in a summer base camp - in the case of Haamstede.
- 13 Such as Bergschenhoek, Hazendonk, Hekelingen III phase 3 (Bell Beaker), Vlaardingen phase 2 (Bell Beaker), Oldeboorn (Louwe Kooijmans 1993b).
- 14 Thomas 1988, 1991.
- 15 Madsen 1986.
- 16 Zvelebil 1986a.
- 17 Ammerman/Scavalli-Sforza 1973; in particular in part of Denmark by Paludan-Müller 1978; Rowley-Conwy 1984.
- 18 Bender 1978; Thomas 1988.
- 19 See *e.g.* Lee 1992; Schrire 1984; Solway/Lee 1990; Stiles 1992.
- 20 Louwe Kooijmans 1998.
- 21 Sherratt 1981, 1983.
- 22 These 'Late Woodland' Indians and their historical successors, however, had no domesticated animals other than dogs. They lived in large communal houses. Their villages and fields, in which they grew maize, beans and squash, lay in clearances created in the woods and were surrounded by palisades (Ellis/Ferris 1990; Tuck 1971).
- 23 De Grooth 1991.
- 24 In Australia in particular, much ethnohistorical research has been carried out into the sociocultural meaning of exchange networks (*e.g.* McBryde/Harrison 1981). Bradley/Edmonds 1993 is an interesting case study on the mining centre of Great Langdale, northern England, and the social network behind it.
- 25 Van Gijn 1990: 97-132.
- 26 Works like Kelly 1992 and Shott 1986 discuss different forms of mobility from an archaeological viewpoint.
- 27 From the German Rhineland into the Netherlands and from Saxony into Denmark and southern Sweden (Van der Waals 1972; Brandt 1967).
- 28 Polman 1996.
- 29 Weiner 1992.
- 30 Van Gijn 1998.
- 31 Compare the plastic copies of traditional forms in our own century.
- 32 'Historical experience' is a concept from the philosophy of history (see Ankersmit 1993). Historical - and also archaeological - records may appear so recognisable that the difference in time between then and now seems to disappear. We then feel we can understand the past from our shared human background. This is for example the case at the camp of Bergschenhoek (Louwe Kooijmans 1987), although on further consideration important questions still remain unanswered at this site.
- 33 A number of regional projects are currently being carried out: the Meuse valley project (Wansleben/Verhart 1990, 1992), the river dunes project (Verbruggen forthcoming) and the 'wet heart of Holland' project (Ten Anscher/Gehasse 1993).