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The historiography of landscape research on Crete

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5. Historiography of Landscape Research in Crete

5.1 INTRODUCTION

To construct the history of archaeological thought in Minoan Landscape Archaeology is not an easy attempt, as Minoan archaeology has followed its own long trajectory, empty of much theory regarding landscape studies. The method of exploring the landscape has always been under the shade of a leading archaeological paradigm and it was just a method, usually self-explanatory, never deserving evaluation of its theoretical component. Based on chapters 3 and in particular 4, however, this chapter discusses the major characteristics of archaeological landscape research within which the various projects undertaken in Crete have taken place. A set structure is followed discussing theoretical background and aims, methods, site definition / relocatability, results, interpretative framework and general assessment. The identification of traditions in the study of the thirty-five projects in Crete is based on grouping together certain distinctive features in the way the past is approached and aims at the elucidation of patterns in their relationships, as elements of knowledge production. The study of such patterns in the way archaeological knowledge has been constructed (to which I refer as traditions), has profited from Tilley's discussion of approaching archaeological knowledge (Tilley 1990). My approach is of course rather historiographical, but the description / discussion of the identified traditions on archaeological landscape research in Crete includes themes such as what is considered to be proper discourse, what patterning is presented and why, what 'statements' are made ('statements' are implicit in themes and ways of presentation), what is disseminated, who writes and how he is related to other researchers. Such an approach is believed to be an indispensable condition for in-depth understanding of the various landscape researches and therefore necessary in order to make assessments and inter-project comparisons.

'Traditions' in a sense relate to Kuhn's paradigms (1962), and indeed they may exhibit strong links with specific time periods since the 19th century; however, the formation of paradigms in Greek archaeologies, has depended greatly on social and political factors, they are not just products of intra-science processes (Morris 1994). 'Traditions' are thus disciplinary frameworks of archaeological practice, formed according to socio-political circumstances and which demonstrate what is considered to be proper archaeological research and discourse over time and depending on theoretical approach. It becomes apparent, however, that they are not the 'magical unit' in which to analyse archaeological knowledge; they are not linked in a time and value evolutionary process and do not consist of homogeneous projects. It would certainly be wrong to use 'traditions' as flags of 'good', 'proper', or 'bad' work, as all approaches have their strengths and weaknesses and have been constantly interacting in multiple and complex ways. On the other hand, the notion of 'traditions' allows us to relate approaches of archaeological work, explore similarities and differences, and view archaeological knowledge production within a context that promotes understanding.

The relationship between knowledge production and its socio-political framework (a two-directional relationship) is not explicitly discussed in the context of this thesis, as the aim has been primarily to describe and assess what we ultimately have from more than a century landscape research in Crete. However, insights into what constitutes proper research and desirable knowledge about the past, allow us to at least suspect respective social, political and economic circumstances. Hopefully, the need to view archaeological results within a complex network of interrelationships that demands self-assessment and a critical approach towards the value and potential of acquired knowledge will be clear and encouraging.

5.2 TRAVELLERS TRADITION

5.2.1 SUMMARY OF MAIN CHARACTERISTICS

- Multi-scientism; mapping, geography, ecology, history, literature.
- Discovery of sites mentioned in ancient sources.
- Narrative descriptions of monuments and pieces of art.
- Narrative descriptions of the physical landscape and life in Crete, from a variety of perspectives.
- Landscape is treated as the physical environment that contains human activity. Its study is characterised by excitement for the discovery of exotic Crete.
- Time and space are not dissected; the observable world is more unified than in later works.

5.2.2 THEORETICAL BACKGROUND AND AIMS

Travellers' accounts in Crete start already from the 14th century. Until the 17th, descriptions concern mainly geography, contemporary history, local products, but also ancient history and mythology (Gondica 1995). A Travellers' boom is noticed in the 19th and early 20th centuries, an era that believed in man's ability to learn the world through empirical observation and promoted the exploration of new lands, in particular ones that had hosted glorious civilisations in the past. European humanism, with its focus on ancient Greek philology, made Greece an attractive pole of exploration, which was brought into attention not only as the land of origin for the European civilisation, but also as an undiscovered, exotic place, romanticised for its struggle against the Turkish conquest. Moreover, Greece was of a strong political interest for European governments. Crete was among the most favourable destinations for Travellers, who could be geographers, doctors, botanologists or cartographers, and who were usually involved in many knowledge areas of their time. They were among the elite of their country, having been able to receive a good level of education that included the study of ancient Greek literature. Acquaintance with ancient Greek texts was a major inspiration for their travels and thus the discovery of sites mentioned in ancient texts a principal goal. At the same time they had a strong interest in ethnography and concurrent life on the island. This approach can be followed throughout the 20th century, and is in fact on-going through travel guides and chronicles.

5.2.3 METHODS

Travellers, who visited the island when it was still under Turkish rule, would get in contact with consuls or representatives of European countries in Crete, who would suggest a Cretan local as a guide, responsible to take them around and help them with their investigations across the island. A basic itinerary and general plan was in general pursued, but travelling under difficult circumstances often required flexibility as well as diplomatic skills. Personal observations were the main tool of exploration, which concerned as much the physical environment, landuse, economy and cities, as social life, customs and beliefs. Regarding the discovery and documentation of ancient sites and monuments, the principal source of information was ancient historians, mythology and previous Travellers, but material culture such as architecture, coins, inscriptions etc were also used as important evidence. The information acquired from written texts were combined with information from local people and usually followed by personal observations.

5.2.4 SITE DEFINITION / RELOCATABILITY

Places discussed are all loci considered interesting to describe and illuminate Crete's history and identity, whether villages, monuments, monasteries or sanctuaries. Ancient sites are defined upon information from written sources, but also upon surviving material remains, mainly architecture. The term 'ancient' refers to Greek or GR times, as this is the period that attracts most interest, and 'site' is the equivalent for an ancient GR town or settlement, known from ancient sources. Most sites visited by Travellers are known and usually exhibit

monumental architecture, or contemporary villages and monuments. Even though there are of course ancient sites that have been wrongly identified, descriptive accounts make most sites easy to relocate.

5.2.5 RESULTS

The most important results concern life on the island at the time the various accounts were written. We gain very informative descriptions of both the environmental and the cultural landscape of Crete, social relationships, customs and beliefs, economic and political life. Geography and environment may be presented in an austere descriptive manner or as part of literary stories and narratives of social issues. In general, the physical and the social are co-related in a natural way, space and time are not dissected with sharp border lines. We receive a picture of the present in which the past is almost a living component. The past forms, of course, a distinct topic of research and is explored through myths, ancient history and material culture found in the landscape. Many ancient sites are correctly identified and mapped and descriptions, including a brief history of the site and its research, are valuable records of their situation at the time. On the other hand, we may also get wrong assessments and biased opinions.

5.2.6 INTERPRETATIVE FRAMEWORK

Patterning observed	Patterning of interpretations
Topography and material culture	Identification of GR towns or places mentioned in ancient sources
Extents of ancient remains	Identification and size of settlement
Megalithic architecture	Site chronology

The main interpretative problem Travellers encounter is the correct identification of a GR city and its location on the map. An inductive thought is followed, where all possible arguments leading to a specific interpretation are presented. Intuition plays a significant role and so does 'common sense', whether regarding the discovery of an ancient site or the explanation of belief systems, cultural behaviour or socio-political and economic situations. Comparisons are used in order to illuminate themes described and support proposed suggestions. Discourse necessitates the discussion of a wide variety of topics in order to supply an as complete a picture as possible of the described places. Geographical and other observations of the physical landscape, but also history, mythology, customs, life style and the cultural landscape are significant parts of Travellers' accounts. Observations are described in detail, and may be supported by personal opinions and assessments. Maps of ancient Crete are a usual 'must'. Sources such as ancient writers and previous Travellers/antiquarians are systematically referenced, representing the framework of inspiration and method within which they worked. There are also references to European art and literature, which reveal wider perceptions of educated Europeans.

5.2.7 GENERAL ASSESSMENT

Travellers' accounts vary in the quantity and quality of information they provide, but in general they approach a wide variety of themes focusing on descriptions of the physical and cultural environment of their time. Some are more interested in ancient history and material remains from the past, others in environmental studies, or the socio-political situation. Travellers are educated people whether involved in academia, politics or the military. They are adventurers, but also people with good political contacts to grant them support and help with their endeavours. In principal, observations and experiences of their travels are kept in a diary form, but there are cases where research is taken seriously and performed with a certain method. Writing

is in fact a combination of ‘objective’ empirical observations, where data are described with no further personal comments, and literary descriptions of various themes, where personal thoughts and feelings are expressed in a quite detailed manner. Literary narratives and descriptions may also present the line of thought, regarding the relocation of ancient sites. Art drawings offer a realistic visualisation of themes described, whether monuments, landscapes, plants, animals or local people in their costumes. An indispensable part of presentation is the construction of maps showing geography, topography, and environmental characteristics (e.g. a forest), but also the location of ancient sites and monuments, castles and places discussed.

Interest in cartography combined with an interest in discovering ancient sites, promoted topographical observations and a geometric perception of the landscape. However, the Travellers use their intuition, their senses and emotions, as much as their empirical observations and critical thought. They are a most significant source of information regarding the appearance of the landscape at the time of their visit, but also regarding social history, including value systems of both Crete and the various European countries. They all leave exciting descriptions and have been a constant inspiration for research on the island. A very interesting approach is the incorporation of the ancient past into the present landscape, a diachronic perspective and interest in cultural continuity. Results may of course be subjective impressions and at times wrong, but Travellers’ accounts are historical sources to be studied as such. In any case, Travellers’ vivid narratives give us exciting information and an idea of how the past was perceived by both locals and Travellers.

5.3 CULTURE HISTORY TRADITION

5.3.1 SUMMARY OF MAIN CHARACTERISTICS

- The framework within which archaeology in Crete was born; Landscape explorations aimed at discovering and recording material culture.
- The rich findings of the Minoan civilization have biased archaeological research ever since.
- Landscape is the spatial / geographical context of archaeological sites.
- Close links with the Topographic Tradition.
- A Cultural evolutionist perspective has characterised research. The study of material culture has focused mainly on artistic values and the building of chronologies. There is a focus on excavation data that are studied in order to establish site hierarchy (based on size, elaborate finds, architecture and concluded complexity).
- Not much – if any – discussion of method, theory, terminology used; concepts are usually taken for granted.

5.3.2 THEORETICAL BACKGROUND AND AIMS

Projects of this tradition focus on the description of material culture within a rather normative view, aiming to build a picture of the past and in particular of the Minoan past. Minoan archaeology has developed primarily within a theoretical framework of classics rather than prehistory. Greek and foreign researchers excavated and brought to light a much wanted glorious past, which has fuelled archaeological research ever since. Landscape explorations aim at the discovery of new sites, namely spots of interesting finds, which prove the spatial extends and magnitude of the Minoan culture. The exact location and nature of ancient activity are in fact of secondary importance. However, research is not restricted to Minoan times; since most archaeologists studied classics and ancient history, GR and BVT sites and antiquities are also recorded.

Greek archaeology was born in a Culture History framework. From the end of the 19th and throughout the first half of the 20th century, and in connection with the socio-political demands of the time, many researchers inspired by Homer walked all over Greece in order to locate ancient sites mentioned in written sources and find new ones, representative of the glorious ancient civilisations. Excavation discoveries in combination with the decipherment of Linear B resulted in an increased desire for the discovery of PH

sites. Archaeology in Crete has been typified by an almost exclusive interest in the Minoan past, as a result of the specific historical and in particular political circumstances within which it was born, and which are characterised by an evolutionary ideological framework and the need of Europe to find its prehistoric identity (Mc Enroe 2002; Preziosi 2002). A leading figure of the beginnings of Cretan archaeology is I. Hatzidakis (Hatzidakis 1881; 1888; 1931 etc), president of the ‘Philomathic Society of Herakleion’ (Φιλεκπαιδευτικός Σύλλογος Ηρακλείου) and founder of the Herakleion museum. He worked hard for the collection of antiquities in order to promote the Greek national identity of the island, which was still under the Turkish rule. He dug Malia and other sites and also encouraged foreign researchers, who at the time were exploring Crete (and Greece), often representative of the Great European powers and America, who were competing over excavation sites (La Rosa 2000-1; 2002-4). Xanthoudidhes (Hatzidakis’s descendant) also wrote about collections of antiquities and the history of Crete (Xanthoudidhes 1904; 1909; etc). Kalokairinos dug first at Knosos (Kopaka 1995), which was finally undertaken by the British School and Arthur Evans (reports in BSA volumes and Evans 1921). Harriet Boyd Hawes (reports in AJA volumes; Alsebrook 1992), Hogarth, Halbherr and others were also among the first who established Minoan archaeology, through excavations and extensive explorations across the island (Huxley 2000; Sakellarakis 1998). Later on Pendlebury (1939) and in the 60’s Hood, composed extensive catalogues with ancient sites and worked in the same framework as Benton, Hankey, Morris etc. Sinclair Hood in specific, had participated in Roman studies in Britain and having studied ‘recent’ history (since Constantine the Great), he had an interest also in the GR period and occasionally recorded Byzantine-Ottoman sites. He worked towards the enrichment of site inventories (starting with the request of a publishing company to update Pendlebury’s ‘The Archaeology of Crete’), which triggered interest also to little known areas and demonstrated evidence in support of the extents of the Minoan civilisation. Excavators and ephors (Marinatos, Alexiou, Platon, Davaras, Sakellarakis, Tzedakis etc), have worked in the same framework of trying to uncover the Cretan past. Ultimately, the writing of the history of ancient Crete (Spanakis 1940; Vidalakis 1970 and many others) uses data from excavations and history and archaeological landscape researches.

This tradition has in fact strong links with the Travellers, but also with the Topographic Tradition. For example, archaeologists have often adopted a Traveller’s approach, using previous writers and local sources to identify sites; at the same time, the meticulous recording particularly developed in the German Topographic Tradition represented a more ‘scientific’ presentation of data and opinions, and the significance given to the description of the observable world, characteristic of the turn of last century. Overall, perhaps the most distinctive characteristic of this tradition is its focus on description and the lack of any interest in explanation. The concepts used have always been taken for granted.

5.3.3 METHODS

Field-methods are structured along the lines set by Travellers, antiquaries, topographers and settlement archaeology. Archaeologists went on excursions and looked around for locations of ancient remains, developing an ‘intuitive’, ‘empirical’ approach to discovering ancient sites. The main methods followed are: **a)** Going to kafeneions asking for ‘visala’ and meeting people who would often take them to sites. Agrofylakes and people with an interest in archaeology occasionally became archaeologists later. **b)** Travelling around looking for low hills with relatively flat tops and areas with arable land and water sources. These criteria formed the ‘common sense’ locations for settlements. **c)** Following previous researchers’ descriptions to relocate sites.

Hood was influenced by Woolley’s excavation methods at Alalakh and Kenyon’s at Jericho (a student of M. Wheeler; she gave great importance to recording methods). He declares that his principles were to look around as much as one could walk, carry as much as possible, look for common sense ‘inhabitable’ areas and record everything, including GR and sometimes later sites. Sherds kept, were the best diagnostics seen on the surface.

Like the Travellers CH archaeologists also use toponyms to infer site-location, whereas previous explorers (ancient writers, Travellers and archaeologists) are used as information sources to identify known sites.

5.3.4 SITE DEFINITION / RELOCATABILITY

Sites are locations of past material culture. They are defined upon ‘self-explanatory’ or intuitive criteria rather than explicitly defined ones. The presence of architecture and sherd spreads – the combination of both presenting a stronger case – is taken to reveal a site, most commonly interpreted as an inhabited location. Sometimes, however, sites may even be ‘stories’ of a find at a village. The area-size these locations cover vary, they could be an isolated tomb or find, or a wide area with many findspots, e.g. a settlement with a possible tomb nearby and a scatter ½ km away. Uncertainty over chronological and functional characterisations is expressed through hypothetical tenses or let to be implied, e.g. when they refer to rumours of ancient finds and sites. An important weakness is that at times interpretations are not clear, e.g. when people refer to previous researchers without stating if they agree with them or not, or when they describe site data as of probable chronology and / or function and refer to the site as of a *certain* interpretation.

On site, all periods noted may be mentioned, but there is usually no distinction between possibly different functions in different periods. Sherd quantities are described in vague terms, e.g. a few, or many. Site-function variation is very broad, as a site is any location with material remains and thus archaeologists may describe loci such as walls, displaced architectural blocks, inscriptions, wells, in short any place with some archaeological interest. Greater attention is, however, given to settlements, burial and religious sites. Overall, sites are not perceived as interpretations or entities of a specific definition, needed for interpretative suggestions on social reconstructions, they are more ‘hard data’ telling us ‘what’ exists ‘where’.

Site Recovery Variability: The data measured are traces of walls, stones (from walls) in combination with pottery presence, or just pottery concentrations. The walls are mainly interpreted as house walls, but have also been interpreted as parts of terraces, fortification walls, roads or quays. The quantity of pottery upon which site function and chronological definition are based, varies and there is no formal quantification that distinguishes settlements from isolated houses or farmsteads. The same characterization (e.g. stones and a thin scatter of sherds) may be used for both ‘small settlement’ and ‘farmstead’. However, sites interpreted as settlements usually seem to demonstrate larger and more dispersed scatters of stones and pottery or better preserved walls in comparison to those called ‘farmsteads’. It appears that scatters of more than 50m² are interpreted as settlements.

Examples of data measured for site definitions:

Settlement	Isolated house	Farm
Walls, sherds and finds	Traces of walls and 1-2 sherds	Scatter
Sherds and stones	Walls and fragments	Concentration in a small area
A few sherds and a toponym	Traces of walls and scattered sherds	
Stones and a good deal of pottery	Thin scatter	
Pottery	A few sherds	
Stones and a scatter		

As far as relocatability is concerned, some sites may be known or easy to find if they have substantial architectural remains and locational directions from known spots, but in other occasions they are extremely

difficult to relocate as locational descriptions may not be adequate and map scales are usually of low resolution. In general, location does not always receive the same importance.

5.3.5 RESULTS

Landscape research within the Culture-History tradition, has produced mainly reports and site-indexes (whatever a site is meant to be). These, describe material culture and landscape observations, not in a consistent manner, but with an effort to present as clear a picture as possible. As there has traditionally been a greater interest in Minoan times, chronological resolution is much better for the PH than the later periods. For the PH, we also have small sites, e.g. farmsteads and isolated houses, as well as settlements. GR and especially BVT are recorded, even though chronological characterisations may be too general and inaccurate e.g. 'Medieval'. The aim is to provide detailed descriptions of material culture found, but often there is no attempt to find interconnections of loci discussed. The most popular interpretations regarding Minoan society include:

- The unity of Minoan civilisation. Proving its extent and grandeur. There are Minoan sites across the island.
- LBA: flight to hills due to sea peoples and warfare
- The West is considered to be less developed in relation to central and eastern Crete
- Crete was extensively populated in N and BA and heavily forested.
- An identified settlement hierarchy implies social hierarchy; concepts of hamlets, farmsteads, moving royal settlements between summer and winter, remind us of concepts relevant to the English countryside.

5.3.6 INTERPRETATIVE FRAMEWORK

Patterning observed	Patterning of interpretations
Relationship between sites and topographic characteristics.	Location, accessibility.
Distance among sites and geographical / environmental features (sea, water sources etc).	Common sense suitability of location for settlement, specific function, developmental stage.
Material culture spread and quantity.	Substantial remains define sites; quantity and spread define site size e.g. a lot of material and a big spread are more likely to represent a settlement as opposed to a hamlet or farmstead.
Site numbers, size, function.	Rough population estimates based on site numbers, size and function (e.g. relationship between tholoi and settlements). Site-size implies hierarchy.
Typology and chronology.	Definition of site chronology and function (burial or religious character of the site). Origins of Minoan culture, theories of colonization and diffusion. Possible relationships between sites.
Architecture, objects, iconography, philological sources.	Social reconstructions based on themes such as food and clothes, war and trade, religion and burial customs.

The basic questions sought to be answered concern types of sites and their chronology. Relevant interpretations are based on experience and intuition. Socio-political views are strongly influenced by English concepts and perceptions, e.g. there are Minoan 'hamlets' and 'farmsteads', but not really 'metochia'. A favoured picture of the Minoan landscape (S.Hood), reconstructs houses with terraces, a landscape dotted with isolated farms and

towns with suburbs. There are assumptions on Minoan cultural and political uniformity, and common sense relationships, e.g. between quantity of material and economic hierarchies, power and population densities. Change is basically studied in relation to diffusion, warfare and catastrophic events (e.g. Santorini eruption). In general, the weight is given to the identification and documentation of sites rather than on complex socio-political interpretative schemes and there is more attention to general patterns than social conflicts and local differences. Landscape explorations are seen as providing additional data to excavations for the construction of historical narratives within a systemic framework.

Reports consist mainly of text descriptions of sites visited and relevant maps. A basic introduction referring to the reasons for undertaking the specific project is usually also included. Links with the Topographic Tradition have established relevant descriptions as a necessary component of site records and geographical observations are also included, even though their relationship to material remains is rarely explained or discussed. Moreover, Cyril Fox's work (1932) had a significant influence on the following generations, who observed geography in relation to settlement, even if not in a consistent manner. Site records include descriptions of material remains observed and the history of archaeological research. An effort for some explicitness is occasionally attested in descriptions of site location (heights, bearings, topography, toponyms), in dating sites (chronology of Minoan tripod feet presented), and also in the presentation of the history of research regarding the sites discussed. Previous researchers and excavators are consulted and extensively used to aid interpretations. Most have of course been working within the same tradition, studying objects from excavations in order to establish and improve Minoan chronology, and walking the landscape in order to find new Minoan sites. Ancient writers and Travellers (mainly Spratt and Pashley) are also widely referenced. Finally, personal opinions and speculations are often expressed with relative caution.

5.3.7 GENERAL ASSESSMENT

Work within this tradition belongs to the framework of Greek archaeologies, which are characterised by culture-history ideas and the development of classical archaeology (Morris 2000, 2004; Kotsakis 1991). Extensive explorations in Crete follow a general pattern where the best students of pioneer archaeologists were sent to Greece to discover new sites. The discovery of the Minoan civilization triggered a strong desire for the (re)construction of its remote past, which was primarily based on excavations. Extensive explorations served the purpose of locating new sites to excavate, and at the same time provided a picture of the spatial spread of antiquities.

Culture history tradition has not focused on a strong theoretical enquiry but has depended strongly on a theoretical framework that consists of long established and 'taken for granted' views (e.g. the existence of elites and palaces and the supremacy of cultures exhibiting such social differentiation). Methodology is not explained and there are no clear definitions of sites or of chronological and function interpretations used. Descriptions are usually presented without trying to find interconnections of loci discussed. Although the presentation of data often follows a narrative manner, an actual narrative of the history of the area explored is not pursued. Catalogues are a must, but the information given does not follow a specific structure. Descriptions of ancient remains and their location (sites) are presented in a rather literary form, even though we can discern a conscious effort to document sufficiently data and information considered important. There is in fact an interesting interplay between a formal way of writing (observations without personal comments) and an informal one where personal opinions are expressed. Presentation consists of site descriptions in terms of material remains and additional information such as topography, and sketch-maps at various resolutions showing the area of research and site location in a 2-dimensional space. Site maps are often presented with a chronology and / or functions legend. Architectural plans appear occasionally, but pottery drawings are almost always included in reports. The purpose is to present material culture and its location, but tentative explanations or a general conclusion of patterns observed may also be given. Landscape photos also appear occasionally and allow a more realistic visualisation of the landscape. Statements made declare the focus given

on discovering sites and compiling site catalogues, but also on providing good site records, which are taken to elucidate aspects of ancient societies by default.

Interpretative suggestions have of course been heavily criticised, not least for a culture-evolutionary framework, which does not explore ‘whys’, promotes a dichotomy between man-environment, projects the present into the past comparing forms and not relationships and treats prehistoric societies as a unified ‘culture’ or system (Hamilakis 1995). Indeed, such a perspective treats past societies as in a predictable cycle of genesis-maturity-acme-decline-death and seeks a homogenized cultural identity to the expense of social identity and heterarchical relationships. However, archaeological developments are only naturally subject to relevant historical contingencies. Identifying weaknesses of relevant work should not prohibit us from recognising its significant contributions and pioneer character. The great enthusiasm and dedication in revealing man’s past led to important discoveries and classifications that have established a necessary chronology. Catalogues of sites have enriched our knowledge about past human activity and inspired later work. Much current work undeniably needs past and present records and reports, with all their weaknesses. After all, many patterns tentatively identified by extensive research of the Culture-History tradition may be valid till now and supported by further evidence of later intensive surveys (e.g. settlement hierarchy), even if the latter have developed more elaborate interpretative schemes.

Many current researchers have discussed sceptically and criticised the theoretical framework of Minoan archaeology (Bintliff 1984; Driessen and MacDonald 1998; Hamilakis 1995; 2002b; Driessen *et al.* 2002). This is an expected and certainly wanted result of disciplinary developments. We surely have to question interpretations and seek answers to more complex questions. However, it is important to acknowledge all archaeological contributions and at the same time assess their potential and limitations. A very important problem we have with landscape research of this tradition is that data are not collected in a manner suitable to answer many of the questions asked in a landscape-ecology framework. Of course no densities can be estimated and there are problems in classifying sites and interpretations. Even though site data usually refer to substantial human activity in the past, at times sites can only be treated as information sources. We need to filter which interpretations we can use and for what purpose, but in fact this is the case with all results of landscape research.

5.4 HUMAN GEOGRAPHY TRADITION

5.4.1 SUMMARY OF MAIN CHARACTERISTICS

- Geographical and environmental observations form the basis for interpreting settlement location and by extent human societies.
- The landscape is approached as the physical environment within which human societies evolve according to external (environmental) and internal (social) stimuli.
- Maps are used to visualise the relationships between geographical factors and settlements discussed in the text.
- A diachronic approach reinforces interpretations.

5.4.2 THEORETICAL BACKGROUND AND AIMS

The most important characteristic of projects within this tradition is the emphasis given on geography and environment, as the core framework within which human behaviour can be explained. The physical landscape is not guaranteed a deterministic role, but is considered as defining the context within which specific responses are enabled. Research questions explore human choice for settlement and the varying social developments within the same geographical areas. Even though projects are usually period-specific, a diachronic framework of analysis between geography, historical topography and human culture is usually pursued and proposed, offering comparable observations for a more thorough understanding of past societies. The principal aim is

to produce an explanatory framework within which all relevant archaeological results can be understood. Excavation data and results of previous researchers are extensively used, sites revisited and often reassessed. At the same time, some researchers walk the landscape extensively and discover new sites, which recorded at variable scales of detail, are integrated in general explanatory models of social structures.

5.4.3 METHODS

Methodology uses detailed studies of geography and environment mainly through field explorations, but also through maps. Data observed are in principal topography, distance from the sea, geology, water sources, and land potential, and of course site chronology and function. Correlations often seek to test hypotheses. An important component of the process of understanding relationships between sites (human behaviour) and environment / physical landscape, is the contact with local people who live and interact with the landscape under study. Historical and ethnographic parallels may also be used. Archaeological investigations are based on existing knowledge, and new observations of revisited or newly discovered sites.

5.4.4 SITE DEFINITION / RELOCATABILITY

Even though projects focus mainly on settlements, a wide variety of sites is discussed. Function is defined upon archaeological material and geographical / topographical criteria. Depending on quantity of material and location, settlements may be interpreted as of either permanent or temporary character. However, there is no explicit site definition. All places considered interesting and relevant to interpretative suggestions are discussed, even on the area level, often impeding the isolation of clear chronological and functional interpretations. Relocatability is not actually the primary goal for the HG tradition. Maps and drawings focus rather on supporting explanations, and visualising man-environment relationships. However, depending on researcher there is also an effort for accuracy. Many of the sites discussed are known settlements and topographical drawings can be very informative. Moreover, text descriptions and toponyms can facilitate site relocation.

5.4.5 RESULTS

A great asset of this tradition is that it studies settlement patterns in a historical continuum and not in chronological windows, promoting a historical study of social behaviour and change. The observation of correlations between settlement location and environmental factors concludes on differing patterns of preference over time, explained via economic enterprises and social structures. A favoured theme is life on the Cretan mountains studied diachronically and seen as a recurring expression of times characterised by social conflicts. Peaceful and blooming periods are linked to settlement prospering near the coast or close to fertile plains. Research questions are mainly based on archaeological data from excavations and previous researchers, but at the same time they have encouraged extensive explorations, which have resulted to the discovery of many new sites.

5.4.6 INTERPRETATIVE FRAMEWORK

Patterning observed	Patterning of interpretations
correlations between geography and settlement	Economic potential, social organisation
site interrelationships (size, distance etc)	Settlement hierarchy, social complexity
site numbers and sizes	Population and economic growth, nucleation, dispersal
recurring patterns	Strengthening of interpretations

Interpretation is based on the belief that geography and society are in a continuous interplay and therefore, geographical studies can illuminate societal structure over time. Research examines the varying geographical and environmental conditions in relation to variability in settlement location and character, and studies social organisation, which seems to adapt to geographical restrictions and potential. The approach does not promote a deterministic role of the environment; its relationship with people is seen as both influencing and resulting from societal structure. Geographical studies and a historical approach are used to enhance understanding of human choices and social organisation in general. Themes explored include economy, social complexity, cultural identity, and population movements. Site interrelationships and role in the landscape construct a narrative for the social circumstances in the various periods under study. There is an interest in island-wide patterns and comparisons between different areas reinforce explanations of human behaviour. Reports focus on clarifying line of thought, aims and approaches. Data observations are presented as both positive and negative evidence that support interpretative suggestions. The description of material culture sustains chronological and function characterisations, but data presentation includes descriptions of topography, location, environment and site interrelationships. Narrative constructions in relation to map visualisation are indispensable in presenting social explanation. All sources of information regarding a site's interpretation and history are considered, from Travellers and ancient sources to previous researchers and contemporary archaeologists. Scholars operating within Human Geography, in particular those who have worked in Crete are also referenced, supporting problem orientation and interpretative framework.

5.4.7 GENERAL ASSESSMENT

Scholars whose research in Crete is studied in this thesis come from France, Germany and Poland. They are members either of the academia or research foundations. Projects differ in the degree of influences they have accepted from other traditions and disciplines, but they all share a common approach to the landscape, namely culture and environment are studied in their intricate relationship, which is used to illuminate social organisation from a variety of aspects. Relative are statements regarding the importance of knowing site exact location so that we can study them in relation to their geographical context and understand their role in respective societies. The importance ascribed to studying change is also a key characteristic of the tradition. The wide conceptual framework is exemplary, exploring various levels of activity and following a holistic approach in describing past societies. Descriptions of the topography and environment are vivid and to the point, exhibiting competently the characteristics which are used in interpretations. There is a strong interest in providing narrative reconstructions and argued suggestions aim at as vivid and complete descriptions of past societies as possible. In general, the study of relationships between the natural environment and socio-economic organisation, but also cultural continuity results in instructive suggestions regarding past human societies. Moreover, interest in specific patterns of social expression and little known periods, enrich our knowledge of the past to a great extent. Even though most archaeological data used are results of previous researches (mainly within the CH tradition) a lot of new sites have been discovered from extensive explorations.

Text is narrative and dense, describing data observed in relation to thoughts and interpretations. Problem orientation is presented from the beginning and supported throughout the text. There may be site catalogues with descriptions of material observed, or sites may be discussed as part of the description of an area or pattern. Maps focus on the presentation of site location in relation to geography and topography aiming at the visualisation of the chorographic relations discussed. Text descriptions give further details on site location while landscape photos and topographical sketch-maps exemplify further described characteristics that play a chief role in interpretation. Presentation includes also drawings of caves, architecture and objects. In general there is an effort for an objective representation of observations both in a two and in a three-dimensional space.

However, a serious problem is the narrative form of text that mixes data and interpretations. The focus is not on a lucid presentation of data, which clearly lead to specific interpretations, but on the discussion

of interpretative schemes that may be supported by various data. Thus, information may recur and site chronological and function characterisations are not always clear. Archaeological data are at times poor and in general rather difficult to classify and use. The fact that no systematic sampling is used deprives us of the information we can get from the off-site record, but also from detailed on-site studies. Still, landscape studies have a lot to profit from the approach proposed.

5.5 TOPOGRAPHIC TRADITION

5.5.1 SUMMARY OF MAIN CHARACTERISTICS

- Topographic study of known sites, but also of new ones found in the process of extensive explorations.
- Mapping of sites in relation to topographical features.
- Comparison of contemporary topography with ancient.
- Measurements of monuments.
- Landscape is treated as a measurable environment containing human activity (material culture).

5.5.2 THEORETICAL BACKGROUND AND AIMS

Projects of Cretan archaeology included in this tradition differ slightly from what is described as Topographic archaeology in general, due to their main interest in the PH period. The aim is not only to reconstruct ancient Greek topography and the location of known sites based on ancient sources; however, topography and its mapping are the principal means of understanding ancient spatial organisation. The shape of the surface with its hills, rivers and in general lines that can subscribe space is used to interpret site function and character. Use of space in the past is the ultimate question. It is studied principally in relation to its geometry and this is why mapping, usually pursuing precision, is very important. The interest in recognising the spatial spread of material culture and how this relates to topography, but also the frequent division of space upon time, are characteristics that are typical in Culture-History as well, and link the two traditions with strong bonds. The two paradigms, characteristic of the socio-political circumstances of the end of the 19th – beginning of the 20th century both in Greece and abroad (cultural evolutionism, nationalism, positivist thought, interest in military mapping) have in fact shaped Greek archaeology. Cretan projects show clear traits from both traditions, but are influenced also by other traditions and landscape archaeology developments.

5.5.3 METHODS

In order to study ancient sites in their topography, two things are indispensable: extensive fieldwalking and mapping. Researchers walk the landscape looking for the sites of their interest and focus on topographical observations. Topographical mapping, or else the registration of the geometry of spatial relationships in the landscape, is of great importance, whether on the site or regional level. On the site level precision is a key issue and it is pursued with the help of all possible means and tools used in topographical site mapping. In general, high resolution topographical maps are used as a basis and enhanced with further knowledge.

5.5.4 SITE DEFINITION / RELOCATABILITY

Site definition can be quite problematic; sites vary from those of a definable function at a regional scale to parts of the same settlement or even the same architectural feature (different segments of a wall may be different sites). The last cases are frequent particularly in projects which focus on specific settlements and produce topographical maps which portray the on-site spatial spread of material culture. It is evident that such ‘sites’ help us to understand the structure of a settlement, but can not be used quantitatively for inter-site comparisons. There are also cases where the same project may record separate concentrations of material

culture as separate sites or under the same site (e.g. Hood Knossos). The difficulty to interpret whether concentrations are separate sites or parts of the same settlement may in fact be stated (Schiering). Projects of this tradition may combine on-site topographical studies with regional explorations around the site of interest; in such cases sites may be also defined within a landscape approach (discrete concentrations of material culture found while walking e.g. Itanos).

Overall, locations of all kinds of human activity may be recorded as sites, whether these concern an architectural feature, a burial or a settlement. Projects usually provide high resolution maps and discuss on-site architectural distribution or sites with distinct architecture. As a result, the relocation of ancient remains should not, in general, be particularly difficult. However, sites which are parts of the same architectural unit, or sherd concentrations, would certainly not be easy to relocate. The greatest problems in site relocatability would be caused due to the notion of site.

5.5.5 RESULTS

When specific settlements are the core theme of study, research seeks to reconstruct use of space over time. Results concern changes in spatial organisation and in settlement extents and structure, while possible explorations of the immediate countryside seek to provide a ‘context’ and study a site’s relationship with the rural landscape. Results may give us a picture of the humanised landscape in a specific period or over time (what type of sites occur and at which locations) and we may also have an in-depth study of specific kinds of sites and their interrelationships, based on topography (e.g. Minoan Roads).

5.5.6 INTERPRETATIVE FRAMEWORK

Patterning observed	Patterning of interpretations
Geometry of monuments	Function and identification of cultural characteristics
Intra-site spatial distribution of material culture. Distances and geometric relationships	Function of buildings / features and by extent functions and structure of settlement over time
Topography of monuments and sites	Function and character. Sites are seen in a socio-political context
Types of sites in a regional context in relation to topography	History of human landscape changes. Relationships between sites

Topography may be studied in two ways: **a)** as the relationship between the geometry of space and the spread of material culture, and this is when precise mapping is considered very important; questions may not concern issues of complex human behaviour, but focus on precise recording, which supports function interpretations **b)** as the relationship between the geometry of space and the location of sites of a specific function. In this case locational choice is discussed and explained in terms of physical topography, which is used to elucidate socio-political structures. Even though research interest usually focuses on specific periods, site organisation and relationships with the immediate region may be explored over time. The most typical characteristic of projects within this tradition is their focus on objective and detailed recording of archaeological remains and their position in the geometry of the physical landscape. Texts describe topography in terms of routes, elevation and distances, but sources, vegetation and landuse are also observed. The growing prestige of environmental studies in the 70’s has influenced topographic work as well, (e.g. in Hood Knossos a page of environmental information is included in the beginning of the report), even if this is not actually integrated with archaeological data in the interpretative process. In general, researchers try to present an accurate picture of their observations, enhanced by relevant maps. A historical narrative is however also pursued. As usual,

most references concern previous researchers in the area of interest, who are mostly excavators and pioneers of the CH tradition. References are a clear testimony of the strong links and co-developments between CH and Topographic Traditions. However, projects are naturally influenced by contemporary work and developments, e.g. Itanos refers also to intensive survey work in Crete.

5.5.7 GENERAL ASSESSMENT

The Topographic Tradition developed out of an interest to identify ancient sites in combination with developments in cartography and the geometrical plotting of space at the end of the 19th century. It developed hand in hand with Culture History, but in fact focused much more on site-mapping and topography, as the obvious means to reconstruct ancient activity, whereas CH in Crete was absorbed in the effort to discover as much material culture of the fascinating new PH civilization as possible. Researchers are as usual connected mainly with the academia, but Greek archaeologists from the Ephoreia (Archaeological Service) are also involved. One project has been led by Greeks, another by Greeks and French, the third by Germans and the fourth by English. A great asset of projects within this tradition is that they have enhanced our knowledge of specific sites and structures and as a result also of their relevant societies. The scale of research is in general on the site or small area level. The detailed character of archaeological research, which employs meticulous recording, allows a good understanding of monuments-buildings-sites, while the descriptive discussion of data observed supports interpretations of chronology and function. These are particularly enhanced by careful mapping and spatial studies. The emphasis given on the description of the geography and geomorphology of the area, illuminates site inter-relationships, and there are cases where archaeological projects chose a topographic approach to explore complex themes of social organisation (Minoan Roads).

The style of writing is in principal a combination of a positivist account of data recorded and a literary text that describes research and interpretations. There is no specific text structure and usually no systematic catalogue of the sites discussed (except for Hood Knossos, which is closely linked to the CH tradition). Writing in a diary-form seeks 'objectivity', in order to strengthen the relationship between data observed and interpretations, and justify line of thought. Interpretations seem the natural result of objective descriptions. This tradition gives great importance to the presentation of material culture, in particular of architecture. Even of greater importance is the visualisation of the topography of the area and sites in concern, and this is realised with topographical maps, sketch-maps and landscape photos. In fact, landscape and object photography has the highest ratio among projects, relevant to the focus on presenting data objectively and clearly. Presentation includes the geographical location of the area of interest, but also site maps when regional sites are discussed. In general, maps have a strong geometrical perception of the landscape and even though 3-D relationships may be discussed, these may only be presented with basic contour information and landscape photos. Visualisation develops around 2-D relationships. At the same time, however, lack of structure in the texts creates repetitions and at times unclear relationships between data and interpretations. Site definition is also rather problematic and in fact not explicit. This seems to relate to problem orientation which focuses on the description and recording of all material remains and perhaps also their landuse and topography, but not on the study of different site-types to be used in interpretative schemes within a diachronic scope.

Overall, the Topographic Tradition has played a key influential role in archaeological research on the island and is in fact a common component in most landscape projects. The projects classified in this tradition, have also received various influences from other Landscape Traditions, even if of different ones (Schiering and Hood Knossos are closer to CH, Itanos and Minoan Roads to LT). Data and interpretations of these projects may serve different purposes and certainly add to archaeological knowledge of the island. However, they can not be easily integrated with results from other projects.

5.6 LANDSCAPE TRADITION

5.6.1 SUMMARY OF MAIN CHARACTERISTICS

- New Archaeology influences: concept of region, intensive surface survey methodology, and complex interpretative framework favouring social evolution.
- The main topic of research is the emergence of social complexity.
- Landscape is viewed as a definable region with specific environment and variable human activity.
- Large-scale studies, multi-disciplinarity.
- Interest in man-environment interrelationships, ecological perspectives, cultural ecology, etc.
- Elements from all traditions. In Crete attention is given to all work undertaken within the area of interest, regardless of approaches.

5.6.2 THEORETICAL BACKGROUND AND AIMS

The Landscape Tradition for most equals to what is now called Landscape Archaeology, since it is only after the birth of regional surveys that landscape archaeology is a distinct branch of archaeological research. Projects of this tradition demonstrate theoretical and methodological developments in the last 4 decades. They follow a regional approach, where the aim is not just to discover new sites, but to study patterns of the sites observed based on their chronology, size, function and environmental context, and construct a narrative of human settlement over time within a specific geographical area. The publication of the UMME project in Greece, established the systematic extensive coverage of large areas and a focus on environment ever since. The birth of New Archaeology with its emphasis on ecology and environment's influential role on people, but also the importance given to scientific methods, had a great impact on landscape research, naturally also in Crete. In the early 70's we have the first regional surveys and in the end of 70's we have the first survey that employs systematic intensive survey to study the surface record (Chania), using sampling techniques and statistics.

The fact that the Landscape Tradition is a genuine product of New Archaeology is demonstrated by the belief that the archaeological record displays patterns linked to human behaviour and by revealing and studying these patterns, past societies can be understood. Thus, the reconstruction of settlement patterns over time is the major aim proclaimed by researchers. Regional surveys operate in a processual framework of studying subsystems, which imply hierarchy, and which altogether constitute society. At the same time, context surveys, but also urban surveys follow the same framework. Archaeologists study sherd concentrations systematically, and develop a greater interest in small sites and seasonality. Questions develop around the rise and structure of complex societies, hierarchy, urbanism, but also regional variation and the relationships between man-environment. Researchers approach ecological, economic and social issues, but also discussions over the nature of the surface record and the appropriateness of various methods, developing an awareness of survey potential and limitations. Survey projects in Crete receive influences from other major surveys throughout Greece (Kea, Boeotia etc), relevant environmental work (e.g. Bintliff 1977) and complex interpretative models on prehistoric societies (Renfrew 1972).

The new landscape approach is in fact a result of Anglo-American archaeological developments even though in the process it has been applied and developed by researchers worldwide. In Crete, due to political circumstances at the onset of Cretan Archaeology, foreign archaeologists have been engaged with central and eastern Crete, therefore, it is these parts of the island that demonstrate the greatest number of intensive survey projects. Most works of this tradition focus on the PH period even if they record human activity over time. Minoan archaeology is characterised by a strong interaction between traditions and this is apparent also in landscape research of this tradition.

5.6.3 METHODS

The first intensive surveys walked specific areas rather intensively looking for sherd concentrations, but without sampling the landscape. From the late 70's however, sampling became the norm. At the same time, regional surveys always involve extensive explorations and judgmental criteria, structured upon the experience acquired from the long tradition of landscape research on the island, in particular regarding PH locations. These have been of primary interest and survive especially well throughout the Cretan landscape, with abundant pottery, but also architectural remains.

When off-site sampling is employed, it is usually based on grid squares or field tracts and walker-transects at regular intervals, who usually count everything and collect diagnostics. However, total collection might also be employed. Another version of landscape sampling involves walkers covering long landscape transects and vacuum circles at specific intervals (e.g. 50m). Occasionally, there might still be surveys which do not apply off-site sampling consistently; people walk the landscape at regular intervals among them and look for pottery concentrations / sites (e.g. Itanos).

On-site sampling is usually based along two axes at right angles across the site, where walkers might perform a grid collection or vacuum circles at small intervals. There is also additional grab collection from the quadrants and there might be additional axes extended diagonally from the notional centre. Variations include a vacuum circle and diagnostics from the whole site (Chania) or transects at right angles with the original ones (Katelionas) and seldom an overall grid (occasionally in Vrokastro).

Field-methods include an estimate of visibility which is conceived as the effect that vegetation coverage has on artefact recognition. Site identification is made on the field and when a site is identified, off-site collection usually stops; sites are usually sampled at a later stage and site revisits are a common tactic. Regional surveys also involve studies of the physical landscape and the environmental conditions. Analysis uses cultural-ecology methods (SCA, Thiessen polygons), statistics (e.g. to study correlations between sites and environment), ethnography etc.

5.6.4 SITE DEFINITION / RELOCATABILITY

A site in this tradition is usually taken to be any place with significant human activity. The term 'significant' however is quite subjective; a site therefore, may be peaks of pottery densities (when we have off-site counts), or pottery concentrations, but it may also be the location of 2-3 sherds (Pseira). Sometimes it is defined during field-walking and in other occasions only after site revisits (Kavousi). There are of course differences between periods, as the location of even 1-2 PH sherds will usually be recorded and maybe even revisited for closer inspection (Aghios Vasilios Valley), but this is not the case for later periods. The type of human activity studied mostly is settlement, as variability in size and location support models proposed regarding socio-economic structure and hierarchy.

Information on site location is at best presented through map co-ordinates, or tract numbers and text descriptions. However, relocatability has not been of importance in the Landscape Tradition. Site maps usually present sites only in relation to contours and not at very good resolution, therefore it is almost impossible to relocate most sites, especially since the majority of them are pottery concentrations that do not cover very large areas. Modern landscape features, settlements and toponyms would be necessary if one wanted sites to be relocatable, unless GPS co-ordinates are given. Relocatability problems occur partly due to legal restrictions that try to prevent the illicit trade of antiquities, but it is also a reflection of the prevalent concepts in landscape archaeology which pay more attention to quantitative issues and explanatory models of inter-site spatial relationships, than 'where' sites actually are. Site-location is regarded important in interpretations discussing subsistence and intra-regional socio-economic associations (e.g. the spatial patterning of territorial and hierarchical relationships), but not so for relocation purposes.

5.6.5 RESULTS

Survey results focus on the description of settlement patterns over time (or rather of specific time slices in chronological order) in terms of settlement densities and hierarchy. The observed nucleation or dispersal of sites is the most favourable theme and is linked to urbanisation or a more independent farming economy respectively. Such patterns may be used to explain the origins and nature of palatial Crete, landuse and relationships between society and environment. In the GR, the history of sites is presented and patterns are related to the appearance of the Greek polis. Warfare and defensibility is another theme explored, and relevant patterns are observed mainly in transitional periods. Site interrelationships and territories are also discussed and so is economy and modes of living (trade, pastoralism, and seasonality). Overall, we end up with a narrative of relevant societies in successive time-frames, even though certain periods pose problems in pottery identification and are hardly represented in the landscape. Ultimately, regional histories serve as pieces in a puzzle, towards a historical reconstruction of the whole island and the answer of hot issues such as the political hierarchy in Minoan Crete.

5.6.6 INTERPRETATIVE FRAMEWORK

Patterning observed	Patterning of interpretations
Relationship between sites and environment	Subsistence, economy
Relationship between sites and topography	Locational choice upon environmental but also social criteria (e.g. inaccessibility provides defence)
Landuse, land capability, historical ecology	Potential of subsistence through time; environmental reconstructions
Distance among sites	Catchment areas, Territoriality
Site numbers and size	Urbanisation, dispersal, nucleation, hierarchy, population densities
Function and Chronology	Narrative of human activity over time; social complexity
Comparison with other areas	Cultural homogeneity and regional peculiarities
Geomorphology	Landscape changes

In L.T. the interpretation of an identified settlement pattern usually seeks complex schemata of the socio-political and economic circumstances. Modified neo-evolutionism explores ideas such as state origins and complex societies. Usually, there is an interest in diachronic changes and landscape ecology. Regional variation is stressed and divergent local trajectories explored, but at the same time interpretations are seen in an island-wide perspective. Typical themes discussed, especially in Minoan archaeology, are overseas contacts, peer polity, subsistence, territories, influence spheres, site-interaction, exchange networks and hierarchy. There is a growing interest in recording site size, which is indeed very important (Watrous 2004), but the fact that site size is almost always linked to political hierarchy is rather problematic as it is not necessary that sites co-existed – this depends on chronological resolution. The environmental record is studied consistently and supports models of subsistence and ecological change. However, environmental observations are not always linked to interpretations of archaeological data. Occasionally they may be linked to issues of surface record biases. Ethnography is also studied in order to illuminate human responses and practices, while post-modern ideas are not really explored. In general, a modernist stance can be discerned in the way methodology and the environmental record is presented, and in general an effort for a distance between researchers and researched can be discerned.

Referencing is usually extensive, in particular in long, multi-disciplinary projects with a good publication record. All previous archaeological work is mentioned and used as information sources and the basis upon which further archaeological knowledge is constructed. Ancient writers and historical sources form a leading information source and guide for the interpretation of archaeological data in the historical periods. At times, narrative reconstructions may be exclusively based on historical data. References include major survey projects that have influenced field methods. At best, theoretical works that have influenced interpretative framework are also discussed (Phaistos).

Overall, reports of landscape research, whether at a preliminary stage or final publication, start with a discussion of the environment, which is considered as the appropriate context within which to view human activity even if their inter-relationships are not discussed. The history of research is presented as a historical context of archaeological research. The description of the field-methods followed is a must, but their effectiveness and limitations are rarely discussed. The site catalogue usually presents site location in a descriptive manner even if location is also stated with map-coordinates. Some environmental data may also be presented in a consistent manner, but the most important site information concerns the chronological periods identified and secondarily functions. Site maps per period are also a must and allow visualisation of the recognized settlement patterns. Finally, a historical narrative of intensity of human activity and its explanation in socio-political and economic terms is usually the pursued outcome.

5.6.7 GENERAL ASSESSMENT

Most surveys have been realised by foreign academics (in principle English and Americans). Often they cooperate with Greek archaeologists of the relevant Ephoreia as in such a way they are granted permits and have better access to material and archaeological knowledge, acquired by every-day experience of local archaeologists. In any case, the last 30 years have indeed been revolutionary in archaeological landscape research and the result is a multitude of data and a more complex, but also rich picture of the Cretan landscape over time. Systematic sampling, multi-disciplinarity and a strong interest in ecology are the most important characteristics of relevant projects. Field methodology within a New Archaeology framework allowed a better understanding of the surface record and the discovery of a great number of small sites, which illuminate human landscape activities and socio-economic structures. Relationships between people and environment are studied widely, so as to reconstruct modes of living and subsistence strategies. Geography and topography are also used in explanatory models of economic activities and social organisation. The co-operation with other disciplines has no doubt promoted archaeological research in many aspects, from the better understanding of landscape changes and the material record (geomorphology, aerial photography, fabrics analysis), to data manipulation (statistics, IT) and the study of human behaviour (ethnography, social anthropology). The systematic study of changes in numbers and sizes of settlements allows a comparative synthesis of socio-political and economic organisation through defined time periods, in fact the same ones devised from the beginning of Cretan archaeology. A great benefit from LT projects has been an increased interest in historical periods, illuminating a diachronic Cretan landscape. The amount of intensive research undertaken, has indeed promoted historical knowledge of human presence on the island and landscape ecology in general, at a variety of spatial and temporal scales, from local to island-wide.

Writing combines a narrative form with a systematic presentation of data, which in this tradition is the most elaborate. Proper documentation of data and methods, including visualization, is considered very important. As well as the themes presented in all archaeological landscape research, basically maps of the area concerned, site maps, architectural plans and object drawings, methodology is also presented through sketch-maps of field units and occasionally field-forms, while results are supported by tables and occasionally graphs. Site maps present densities per chronological period and this is the core theme explored and discussed. However, function and size variations are not visualized and maps do not help relocatability; sites are presented as dots in relation to contours, in a horizontal representation of their spread, with no reference to other landscape features. Contours give of course height information, which is usually discussed in settlement

patterns, but the relationship between sites and environmental factors observed is rarely portrayed. Site catalogues usually present certain information in a structured form, even though not always clear, especially regarding site function and size differentiations over time. Moreover, the off-site record is hardly ever represented and so are site densities, and as a result we do not visualise the variability and variable intensity of human activity in the landscape, even though social behaviour can be better understood if studied and perceived in a chronological and spatial continuum.

Regarding field methods, a distinction should be made between projects that do not apply sampling methods and those that do; the latter allow revisits which may result to site identification (Aghios Vasilios Valley, Kavousi etc) and also permit an assessment of precision in site recovery, even if this is not really a common tactic. In reality, most sites are defined while field-walking and it is not clear how off-site collection data are integrated and how fuzziness between the off-site record and site borders is treated. However, there are certain problems when sites are defined exclusively on the field, as it is known that some may not have a distinguishable high density when walking, but this may be apparent in subsequent data analysis. A combination of methods is certainly necessary on the Cretan landscape; archaeological knowledge and extensive approaches pay also their own contribution and indeed provide crucial information (Nowicki 1992).

On-site sampling along two axes from a notional centre has been criticised by various researchers quite early (Plog, Plog and Wait 1978 p.407), even though it has been supported that it is still 'an efficient means of determining the size and boundaries of the site, the full range of periods represented by coarse fabric types and fine diagnostic sherds, and the general functions of the site based on artefact types and extant architecture' (Haggis 1992). However, grid-sampling is the best way to reveal site extents over time and allows a better resolution in function and chronological analysis. Weaknesses of axis sampling have been studied through experiments and extensively discussed over time (Bintliff and Snodgrass 1985; Bintliff and Howard 1999). Naturally, restrictions of resources cannot be overlooked, and choice of site sampling methods can vary between sites depending on circumstances. Still, potential and restrictions have to be discussed, but in general an assessment of field methods and precision relative to interpretations is not pursued. Issues of pottery knowledge that create problems in identifying specific periods, even though sometimes considered, are not treated as a measurable factor. Environmental and in general multi-disciplinary studies should also be associated with specific interpretations. Often, however, the environment is studied only as a context to archaeological activity. Moreover, viewing archaeological data spatially as if they belong to the same temporal entity of variable length, but usually low resolution, becomes a serious interpretative problem. 2-D maps enhance a false impression that spatial distribution equals a temporal phenomenon, but in fact maps should be read as interpretations and not as data (Foxhall 2000). We should remember that it is short-term processes that may be even shorter than a life cycle whose accumulation constructs a long-term 'pattern' and it is, no doubt, very difficult to distinguish between different deposits and occupation sequences even in excavated contexts (Dewar 1992; Dewar & McBride 1992). A distinction, however, between long, medium and short term should be pursued, and we should aim at an as fine resolution as possible, exploring different interpretative possibilities. Seasonality for example is not only linked to economy, but also to ideology (e.g. Vlachs: linked to transhumance and a dispersed settlement pattern at the same time that nucleation was attested elsewhere. Also, different socio-economic situations may co-exist – e.g. farmstead economy and urbanization – may exist concurrently).

Overall, cultural ecology has been the strongest paradigm in recent landscape research, which focusing on Minoan times, builds upon theoretical ideas and explanations promoted within a Culture-History framework and relevant culture-evolutionary ideas. In principal, societies are still studied as cultural systems belonging to specific spatial and time borders. Moreover, terms such as 'social complexity' have an implicit meaning linked to evolutionism and thus refer to certain types of societies that are considered as 'developed'. The theoretical framework of landscape research in Crete develops from New Archaeology developments distinguished particularly in methodological approaches, but also within a Cretan archaeology background characterized mainly of a Culture-History framework. Post-modern themes are not really in fashion in Cretan

surveys; however issues of heterarchy, cultural memory, regional complexity and scale are discussed. In any case, our data and understanding of past societies have certainly improved to a great degree, even though research still neglects historical periods and we are deprived of a holistic landscape-ecology picture. However, the greatest weakness of LT projects in Crete is that data integration is very problematic indeed, not simply due to variation in field methods, but mainly due to differences in site concepts and the lack of systematic publication that exemplifies interpretations and their relationship to data observed. When we do not even know actual areas surveyed, inter-regional comparisons become rather problematic. The bet to win is to be able to use and compare data / site-interpretations, before we proceed to comparisons of the interpretative models proposed.

5.7 CONCLUDING REMARKS

Landscape archaeology in Crete falls within the framework of Greek archaeologies and their sub-paradigms and in particular Minoan Archaeology, which has developed according to specific socio-political requirements, it has demonstrated a strong traditionalism, but it has also tried to encompass disciplinary developments. Archaeological landscape research exhibits a complex relationship between theoretical framework, problem orientation, methods and results. Questions explored are formulated under the influence of specific theoretical considerations, they demand and follow specific methods, and produce or even impose specific results. At the same time there is a multifarious relationship between traditions. In general, traditions may be associated with disciplinary theoretical and methodological developments that may be relevant to social circumstances over time, but are not linked in clear, linear chronological relationships. They co-exist and interact. The term 'tradition' can not be used as a panacea to group projects as appropriate or surpassed research in an evolutionary framework, but as a guide of different problem orientation, methods and results between different projects. As we have seen, Travellers aim at providing a narrative of life on the island, part of which is its ancient past, through the identification of sites mentioned in ancient texts; Culture History focuses on the documentation of material remains and the discovery of new sites; the Topographic Tradition on documenting the geometry of sites and their relationship to topography; Human Geography pays great attention to geography and tries to reconstruct social structure through man-geography relationships, and Landscape Tradition focuses on methodology and the systematic exploration of the landscape, discussing socio-political and economic complexity. All traditions offer valuable approaches and knowledge, even though we discern better and worse examples of research in all of them.

The principal aim of all landscape research has been to record and map sites. Their perception however varies. 'What', relates to the notion of an important site, from an unquestionable settlement to pottery densities; 'Where' may be a dot among others in a horizontal context, whether at the site level or at the remains level (a wall), studying mainly distance relations and location relevant to geographical and environmental correlations. More complex questions seek to answer also 'how' and 'why'. Both deductive and inductive approaches have been followed and Cretan archaeology is in general characterised by a systemic framework and the strong influence of ecological considerations. Concepts of time and space have varied and so has the notion of site and perceptions of what is important human activity. There is certainly no doubt that all archaeological landscape research we have in Crete has had its own contribution in approaching the past, even though level of detail, originality and integrability may vary depending on various reasons, among which academic and finance potential, but also socio-political circumstances at countries of both ends. The important conclusion to be drawn is that resulting knowledge has different usability for different purposes, and we can not take results for granted, even among projects of the same tradition. Therefore, it is vital to consider the extent to which data from different projects can be used and what questions they can answer, which presupposes an understanding of what they mean. Such a problem orientation is of ultimate importance for future landscape research; it highlights not only the need to assess existing data and their integrability, but also the need to disseminate future interpretations in a way that can be meaningfully used by others.