

DE GRUYTER

Krzysztof Nowicki

FINAL NEOLITHIC CRETE AND THE SOUTHEAST AEGEAN

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Acknowledgements

The idea for this book was born over 20 years ago when, looking for Cretan LM IIIC “refugees”, I accidentally found their much earlier, though equally terrified, predecessors. The work on some of the sites described in this book, however, began even earlier, in 1983 – the year in which I was fortunate enough to come to Crete and to start my long-lasting fieldwork in this unique, beautiful and hospitable island. Since that time, every year I have experienced the help, assistance, hospitality and friendship of an immense number of Cretan people. They helped me to find the way, sheltered me when it rained or under *kapsa*, gave me a lift or hosted me in their houses or *mandras* with enormous dinners, endless stories and occasional music. I do not even know the names of many I met, when walking across the middle of nowhere, a car (or a mule, back in the 1980s) would stop, and a man or woman would jump out and force me to put a piece of food (from walnuts to roasted lamb) or a bottle of drink (from water to wine or *raki*) into my backpack – whatever they thought this “lost” man needed on his way. They are the first to be thanked – my work without them would have been much harder, if not impossible.

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Preface

This book's origin goes back to 1993, when during excavation at one of the most spectacular sites in Crete – a refuge settlement at Monastiraki Katalimata in the Cha Gorge (Ierapetra) – I unexpectedly revealed a Neolithic stratum that was sealed under five non-continuous layers, ranging from the Middle Bronze Age to the seventeenth century AD.¹ The earliest (Neolithic) deposit, dated to the fourth millennium BC, represented habitation remains and indicated a prolonged phase of insecurity in Crete at the end of this period. This discovery has opened an entirely new research problem concerning the historical circumstances of the end of the Neolithic period, not only in Crete, but in the entire southern Aegean region. Katalimata was the very first Neolithic site in Crete to be identified in such inaccessible place, though some, less dramatic indications of unstable settlement towards the end of the Neolithic and the beginning of the Bronze Age, had been noticed earlier by other scholars.²

The location of a late Neolithic site at such an inaccessible place must have reflected not only just unstable conditions of settlement, but very dramatic events that made local inhabitants terrified. Living in Katalimata was extremely hard, required special efforts and caused unimaginable everyday inconveniences. The most intriguing questions arising about the site were: 1) what kind of settlement it was, and 2) when exactly during the late Neolithic it was inhabited. The excavation (which continued until 2000) clarified the character of Neolithic occupation at the site and its chronological position in the Neolithic sequence in Crete. The excavation stimulated, additionally, further research on settlement changes in Crete, and beyond it, during the last phases of the Neolithic period (the Final Neolithic), and the transition to the Early Bronze Age. Were the extreme characteristics of Katalimata a singular occurrence in the period, one might interpret it as a local phenomenon, reflecting local problems with security. However, Katalimata turns out to be only one of many highly defensible sites of Final Neolithic date in the Aegean, though it is probably the most spectacular in this group. Field investigations have brought to light a substantial number of new sites allowing reconstruction of settlement patterns, including sites without defensible characteristics, in different geographical zones, within Crete and beyond it.

In this book I would like to bring together evidence from earlier excavations and surveys, however poor it is, and the results of my topographical studies and archaeological reconnaissance, undertaken in Crete during the last three decades, with special attention to the investigations stimulated by the Katalimata excavation, after 1994. Existing theories will be evaluated with regard to the material and new interpretation of the events which eventually led to the emergence of the new Bronze Age communities in Crete at the end of the fourth millennium BC will be proposed. A number of questions will be posed, but only some convincingly answered. This should not be disappointing, considering how little evidence for the subject had been published before this book was written, and how much work is still to be done in respect of chronology, identification of sites through the entire Aegean region (not only in Crete), classification of pottery groups, in understanding what the continuous versus the new elements in territorial organization, and in mapping settlement patterns, between the last centuries of the Neolithic and the first century of the Bronze Age. The important (often confusing) problem of chronological sequence of the latest Neolithic phases will be addressed, and especially the most recent discussion on the issue³ will be reviewed. It is still premature to propose a single chronological system for the entire Aegean, which could replace several different systems used by different scholars for different regions. Some compromise between these terminologies and chronologies, however, should be proposed, if only for the sake of correct dating of archaeological material from hundreds of unexcavated sites which constitute the

1 Nowicki 2008b.

2 Hood, Warren, and Cadogan 1964, 51; Hood and Warren 1966, 185; Vagnetti 1973a, 132.

3 Tomkins 2007; 2008.

core of the latest Neolithic evidence in Crete, and for credible cross-comparisons of this evidence with that from other regions of the southern Aegean.

Apart from the presentation of the Cretan sites, and their surface material, important parts of the book are: 1) a short review of comparable material available from the regions directly east of Crete, and 2) discussion of the hypothetical links between the changes in Crete, the Dodecanese, southern Cyclades and southwestern Asia Minor during the fourth millennium BC. A substantial part of the evidence presented here has already been published in a series of papers,⁴ but never in as detailed and comprehensive way. Some ideas proposed in my earlier work have been altered and modified, but in general most of the earlier conclusions are now even more strongly supported, especially by the discovery of new sites. The core evidence analyzed in this book relates to 172 Final Neolithic sites, which constitute a large part, though not all, of the known open-air sites in Crete during that period. Many of the considered sites deserve excavation, but probably only a small fraction of them will be investigated with proper archaeological procedures. Certainly much more will be lost due to erosion and development processes in the Cretan countryside; some are subject to repeated disturbance by illegal diggers. The situation in the Dodecanese and western Anatolia is not better. The Neolithic and Early Bronze Age sites are very “delicate”, and thus vulnerable to complete destruction by virtue of their small sizes, thin deposition layer and the fragility of their construction material. I am aware that in some cases the present record of the site, as published in this book, may be the first and last one, and thus I feel a special responsibility to illustrate the sites as richly as possible. This work, however, should be treated as a preliminary phase of research, and cannot replace either proper systematic collection of surface material or excavations.

An intriguing question is why so many of the sites presented here have escaped earlier archaeological recording and of how many other, unrecorded ones, have already been lost to knowledge. Often Final Neolithic sites were excluded from earlier discussions for a simple reason – because the surface evidence, or occasional excavated material, was regarded as non-diagnostic or chronologically problematic. Even an approximate dating of it was avoided. In this book I will try to show that there is nothing non-diagnostic and nothing problematic about the surface pottery from the fourth millennium BC in Crete. The accuracy of the absolute dates is another matter, but this can be improved only when more C14 dates and more cross-comparisons with the Near East will be available.

Over 170 sites in Crete and over 100 in the Dodecanese, which can be securely dated to the fourth millennium BC, make a representative data base in this book for interregional cross-comparisons constituting an excellent starting point for further research. Two general groups of Final Neolithic pottery can be easily differentiated in Crete: 1) an earlier one that continued the preceding Late Neolithic Cretan wares; in general this group is homogenous throughout the entire island, with some minor regional variations regarding shapes and the surface treatment, and 2) a later one, consisting of several sub-groups, which were the predecessors of the Early Bronze I (Early Minoan I) wares. The wares of the second group (the latest Final Neolithic) are among the most characteristic and easily recognisable types in the entire sequence of Cretan prehistoric pottery, and are difficult to misidentify with the earlier or later material. The only controversial point is the precise moment in which the late Final Neolithic pottery becomes the earliest Early Bronze I pottery. However, this fact itself is an important result of recent research on the period in question, indicating that the beginning of the Early Bronze I had its roots in the latest Final Neolithic phase, but is very different from the earlier Neolithic periods, including the earlier Final Neolithic phase. Certainly, the Early Bronze I pottery marks a substantial technological progress in pottery manufacturing, but many elements of this improvement can be traced already in the latest Final Neolithic phase. Because of its very distinguished characteristics the latest Final Neolithic pottery

⁴ Nowicki 1999; 2003; 2008a.

has a very narrow margin of its dating error, not more than two or three centuries, the value which is comparable with the errors offered by radiocarbon dates.

I am not sure whether all the readers will be convinced by the interpretation of archaeological evidence as it is proposed in this book. However, descriptions and illustrations of sites and objects as presented here, will make it possible for readers to re-examine this evidence against alternative hypotheses. The dating and grouping of the pottery used in the arguments below have been done on the basis of comparisons between hundreds of sites and tens of thousands of sherds, though only about a thousand or so, of the latter are published here. The material (pottery and stone objects) was drawn and photographed *in situ*, but modern technology (Adobe Photoshop) helped to organize and to show the finds in a way not very far from publications of excavated sites.

One of the most important theses presented in this book regards the question of the origin of the Cretan Bronze Age and the roots of the civilization that was labelled by Arthur Evans as “Minoan”. The controversial problem of autochthons versus immigrants will be raised and thoroughly discussed. Unlike some other authors,⁵ I will argue that the origins of most of the processes which shaped out the background for the development of the civilization comparable to those known from Egypt and the Near East, go back earlier than the Early Bronze II, to the latest Neolithic phase, in the second half of the fourth millennium BC, and to the earliest centuries of the Early Bronze I.⁶ The degree of progress in social development during the Early Bronze II is undoubted, but the foundations for this were laid down at the turn of the fourth millennium BC. The end of the Neolithic in Crete was not an internal process of adaptation of the autochthonic population to the technological, social and economic changes on the outskirts of their world. It was directly influenced and stimulated by the physical presence of newcomers, who interacted with the native inhabitants in different ways in various parts of the island.

Though most of the past discussions were restricted to the changes in the technology of pottery production, between the Neolithic and the beginning of the Bronze Age, it is an entirely new attitude to settlement location and settlement pattern which marks the end of the “old world” (the Neolithic) and the beginning of the “new” one (the Bronze Age). The changes in many aspects of everyday life were enormous, and the confrontation line between the “old” and the “new” must have created serious conflicts between different groups of people. The conflicts were not only between the native Cretans and the newcomers, but also between different groups of the newcomers themselves arriving from different regions and in different time. It was in exactly this period and immediately afterwards – the last centuries of the fourth and the beginning of the third millennium – that the later (EBA and MBA) cultural and territorial divisions were rooted. The material culture indicates that the changes were not caused by a single event and by a single group of newcomers. The process, or a series of related processes, covered probably most of the fourth millennium BC, though its culmination phase may have been much shorter and took place in the last two or three centuries of that millennium. Many different peoples were involved, and their material culture characteristics did not always match up with the borders of the linguistic groups, or groups which saw themselves as related to each other. These and other similar issues will be discussed in the last chapters of this book.

The last centuries of the fourth millennium BC were a stormy time in the Aegean, but disturbances were not restricted to this region. It is probably not a coincidence that during the same period substantial social and political changes put the foundations under the powerful and long lasting territorial units in the eastern part of the Mediterranean. The way leading to these developments was also complex and covered much of the fourth millennium BC. The processes in the Aegean, described in this book, may have been a part of the same phenomenon, and may have even been caused or stimulated, at least, by similar factors as those responsible for the changes

⁵ Renfrew 1972; and recently Cherry 2012.

⁶ See for example Branigan 1970, 202.

in Egypt, Levant, eastern Anatolia, and Mesopotamia. Whatever the relation between the changes in the fourth millennium BC in the southern Aegean and the building up of territorial units in the Near East and Egypt, a thorough and comprehensive description and analysis of the archaeological evidence from Crete may bring us closer to understanding the broader background of the transition that led to the beginning of the Bronze Age.

There should be no illusion that a substantial number of identified sites of this period will be excavated within this or the next generation. Destruction processes will be faster than archaeological actions. Many of the sites presented in this book will be destroyed before they are properly excavated. I only hope that this publication will stimulate more work on the subject, especially in the neighbouring regions of Crete, the Dodecanese and southwestern Turkey, and thus perhaps a few more sites will be saved and more questions will be answered.

Chapter 1: Introduction

Description of the Subject and the Research Questions

The subject addressed in this book is of crucial importance to the understanding of the origins of Bronze Age civilization in Crete and the latter's remarkable social, economic and political success during the third millennium BC, which ultimately led to the emergence of palatial states, at the beginning of the second millennium BC. These origins lay in the Neolithic that covered about four thousand years, between ca. 7000 and 3000 BC. The beginning and early stages of this period were marked by the arrival of at least two waves of early Neolithic (Late Pre-Pottery Neolithic B [LPPNB] and Early Pottery Neolithic [EPN]) immigrants, or alternatively by a more or less continuous process of settlement by people from the east, through most of the seventh millennium BC. Later on, Crete seems to have substantially reduced contacts with the outer world, falling into cultural and social conservatism, though not complete isolation. This led to growing differences in patterns of social and economic development between Crete (and other Aegean islands) and western Anatolia, during the sixth and fifth millennia BC. Considering that the population potential of the Aegean islands was much smaller than that of their eastern neighbours, it was only a question of time and extra stimulus before these imbalances invited the stronger, more populous regions (either on their own initiative or forced by other circumstances) to enter the Aegean territory with little resistance from its native inhabitants. Hypothetical resistance can be traced in the changes of settlement patterns more than in other elements of material culture.

The Neolithic period in Crete ended as the result of historical processes which had started east of the Aegean, but which within the fourth millennium BC came to affect the island as well. Developments at this time were directly related to the emergence of the Bronze Age societies in Crete and the Cycladic islands.

The nature of any interaction between the Neolithic Cretans and their eastern neighbours, as well as the influences of both parts on each other, during the period between the seventh and the middle of the fourth millennium BC, are only poorly illuminated by archaeological evidence. In general, it seems that after the arrival of the Early Pottery Neolithic people (EPN), from the middle or late seventh millennium BC onwards, the inhabitants of Crete were focused on exploitation of the island itself more than on exploration of other Aegean islands and maintenance of regular exchange of goods with regions to the east and west of Crete. Some raw material, such as Melian obsidian, was in demand, but its supply did not require intensive contacts with non-Cretan communities. The groups which settled down in Crete during the seventh millennium BC regarded themselves, by the end of this millennium, as the sole occupants of the island and thus further immigration probably stopped entirely or was at least very limited and controlled by the established inhabitants. Crete may have become less accessible to small and dispersed groups of later Neolithic immigrants, and less of an easy target for colonisation. This fact may explain the islanders' cultural conservatism and have slowed down social and economic processes, which were more and more dynamic in the eastern part of the Mediterranean.¹ A similar conservatism and delay of development of some elements of social organization and material culture can also be observed in

¹ This book deals mostly with the Late Chalcolithic period that in Anatolia is dated to 4300–3000 BC and is divided into five phases, 1–5. Particular phases are dated as follows: LCh 1–2 4300–3650 BC, LCh 3 3650–3450 BC, LCh 4 3450–3250 BC and LCh 5 3250–3000 BC (after Sagona and Zimansky 2009, 149–155). Somewhat different dates for LCh period are commonly accepted for Syria: LCh 1 4400–4200 BC, LCh 2 4200–3900, LCh 3 3900–3600 BC, LCh 4 3600–3400 BC, and LCh 5 3400–3000 BC (after Akkermans and Schwartz 2003, 187–191).

the Cypriot Neolithic.² This situation ended in the fourth millennium when the Near East entered another phase of social and economic changes, stimulated by various factors, including regional development imbalances and environmental conditions, and accompanied by large-scale migrations. Groups on the eastern border of the Aegean, either willing or forced by other groups to move to the west, were too numerous and too determined to be stopped by the native Neolithic inhabitants of the Aegean islands. The old *status quo* between different groups of islanders and the coastal Anatolian people, that had kept the region relatively peaceful for over two thousand years, ceased to exist. The Aegean entered a new and dramatic phase of its history. The process is best illustrated by substantial changes in settlement patterns all over the Aegean, but in Crete archaeological evidence for its reconstruction is particularly abundant.

In this book I will try to answer the question of what happened in Crete and the south Aegean in the fourth millennium (and particularly in its second half). To this end, a large amount of new archaeological evidence from Crete, and to a lesser degree from the Dodecanese, will be considered alongside the broader picture of social, economic and political changes in the Eastern Mediterranean. The presentation of new data will be an important part of this work, but the book is not simply a gazetteer of the Cretan sites from the fourth millennium BC. My main aim is to reconstruct the sequence of events and processes which caused Neolithic Crete to be reopened to Near Eastern influence and/or migrations. The island remained a part (however peripheral) of this world for the entire Bronze Age. For the first time archaeological evidence from Crete will be compared in detail with the material from the areas east of it. The question will be addressed of whether similarities in the material culture between two or more distant lands can be interpreted as the result of intensified influence solely or whether migrations on a large scale should be considered as well.

Searching for links between material culture changes and the movements of peoples (i.e. specific linguistic and/or territorial groups with some concept of a common origin) has never been an easy task. There is no standard model for the reconstruction of movement of people between different locations as based on archaeological evidence; even more so considering the kind of evidence that exists for the fourth millennium BC in the Aegean. The historical events of the third millennium BC (not so distant from the period discussed in this book), illuminated by the Egyptian and Near Eastern written sources offer insights, but each case had its own historical background and consequences. This controversial problem of the identification of groups of people through their material culture will be discussed below along with the reconstruction of settlement changes in particular areas. Based on the consideration of two elements (material culture and settlement patterns), the discussion will aim to elucidate the historical processes which shaped out the social, economic and possibly the ethnic reality of Early Bronze Age Crete.

The Aegean was obviously not the region where the key phenomena usually linked with the Neolithic way of life started. Crete and the southeastern Aegean (covering the Dodecanese and the coastal zone of southwestern Asia Minor) seem to have been a peripheral territory to the Near East and Egypt, where dynamic social and economic processes during the Late Chalcolithic period prepared the ground for the emergence of the first political units, somewhere in the end of the fourth millennium BC. These first states were characterized by more clearly defined territorial and perhaps ethnic identities and marked social stratification. The earliest historical sources suggest that the building of these states was achieved by force and conquest rather than by the peaceful unification of people.³ However, there was no one universal pattern for such a development. One should not expect that interaction between people on the peripheries of that world, in the Aegean, was much different.

The first states are known from the turn of the fourth millennium and/or the beginning of the third millennium BC in Mesopotamia and Egypt, but processes leading to more complex territo-

² Peltenburg et al. 2001a, 85.

³ Bard 2000, 65; Sagona and Zimansky 2009, 149.

rial and social organization were on the way also in the Levant⁴ and probably in some regions of Anatolia (at least in its southeastern part).⁵ More provincial regions, such as western Anatolia and the Aegean, were several steps behind this development, but nevertheless social structures were changing here as well. In the Aegean this process got a new external stimulus in the latest centuries of the fourth millennium BC. The origins of this stimulus and a sequence of events preceding it, in the earlier centuries of the fourth millennium, will be discussed with reference to evidence supplied by several hundreds of sites identified in Crete, the Dodecanese and the southwestern coast of Anatolia.

Until the late fourth millennium BC Crete may have been a backwater compared to the East Mediterranean civilizations. At the turn of that millennium, however, the island entered a new path which eventually, after one thousand years, at the turn of the third millennium, led to the emergence of states similar to those known from the Near East. However provincial these early Cretan states may seem to have been, and however poor the historical testimonies they have left, most insular and coastal south Aegean communities maintained much closer links during the Bronze Age with the more advanced East Mediterranean states than with European regions, and thus their social structures were probably shaped by the influence coming from the east. An obvious outcome was the rapid rate of social, political and economic development. This “intermediate” location between two different worlds is nowhere better visible than in Crete. The island, from the dawn of the Neolithic, offered people plenty of arable land, an abundance of water and a territory large enough for long-term demographic growth. Its location also offered the advantage of proximity to highly developed cultures, which might contribute to speeding social and economic development. At the same time, the Cretans enjoyed sea margins wide enough to keep more powerful competitors or enemies away from their island for periods considerably longer than applied in the case of mainland regions to the east and west.

Unfortunately, our knowledge of the process of Crete entering “the wider world”⁶ has been until recently limited to a few archaeological sites, of which only a small number have been properly investigated and published. Most previous attempts to reconstruct the transition from the Neolithic to the Bronze Age, surprisingly, did not take into consideration the abundant archaeological evidence concerning settlement, both in Crete and in other parts of the southeast Aegean. The main aim of this book is to fill this gap and to stimulate more research in areas which are only briefly presented here and in no way intensively investigated by me (especially the Dodecanese and the southwestern coast of Turkey).

A short discussion of the earliest Neolithic phases of settlement in Crete (presented in Chapter 3) constitutes the introduction to the main subject of this book. Recently, views on the beginning of human presence on the island has been completely revised, thanks to new field research, first undertaken on the small off-shore island of Gavdos, about 35 km south of Crete,⁷ and then on the southern coast of Crete, around Plakias, opposite Gavdos.⁸ This newly obtained Paleolithic and Mesolithic material has still to be properly published and analysed. However, the pre-Neolithic presence of people on Crete is irrelevant to the problems addressed in this book and it will not be, therefore, discussed here. I will start with the moment in which Crete entered the processes analogous to those observed somewhat earlier in the Near East which led to permanent settlement of the islands and the strong attachment of some communities to the territories they settled in. This will help to put the process of neolithization of Crete in the context of developments in neighbouring areas – in particular, Anatolia and Cyprus. Knowledge of the further development of the Neolithic

4 Akkermans and Schwartz 2003, 209.

5 Sagona and Zimansky 2009, 155–172.

6 Vagnetti 1996.

7 Kopaka and Matzanas 2006.

8 Strasser et al. 2010.

in Crete, through the sixth and fifth millennia BC, is very poor due to the limitation of evidence, restricted almost entirely to the single large open-air site of Knossos. Apart from Knossos there are known only a few much smaller open-air sites, whose dating and interpretation are more or less problematic,⁹ and a number of cave-sites with the same problems and almost no proper publications.¹⁰

The main subject of this book covers the fourth millennium BC, for which many more sites and material are available and published than for the earlier Neolithic, not only in Crete, but also in the Dodecanese and the Cyclades. The book deals with the so-called Final Neolithic (FN) period in the Aegean and touches the beginning of the Bronze Age. The latter is commonly dated in this region to around 3100/3000 BC,¹¹ although earlier dates, around 3300 BC,¹² and 3500 BC¹³ have also been proposed. More detailed discussion on the terminology and an updated absolute chronology for Crete will be presented in Chapter 4, and the same problem in the Dodecanese in Chapter 7.

The fourth millennium, and especially the second half of it, shows an unprecedented increase in numbers and sizes of sites and frequency of structural remains on the surface. There is hardly any other period of Aegean prehistory which witnesses such a “demographic explosion” – if the site number increase can be interpreted as population growth. Understanding of this phenomenon became possible only during the last two decades when a great number of latest Neolithic settlements were brought to light thanks to archaeological surveys and reconnaissance.¹⁴ Before that the evidence for the fourth millennium BC in Crete was represented by only a few open-air settlements.¹⁵ The most important was excavated material from Faistos,¹⁶ which together with smaller assemblages from Gortina¹⁷ and the site of Mitropolis (dating a little earlier: the end of the fifth millennium?)¹⁸ offered a more balanced picture of Cretan settlement than was the case during the sixth and fifth millennia BC. From the fourth millennium BC onwards Knossos is not any longer the only known large open-air settlement in Crete. Also dating in this period is the published material from the Trapeza Cave in Lasithi, which together with other finds in the district shows an expansion of settlement into inland, upland territories.¹⁹

The foundation of settlements on the naturally well-protected hills of Faistos and Gortina was probably caused by growing insecurity and unlikely to have been due to environmental factors or social development. The question arises: was this shift, and perhaps nucleation, a local Mesara phenomenon, or was it a general problem which concerned other parts of Crete and other regions in the Aegean? The above hypothesis about the defensive character of Faistos and Gortina location is confirmed by the identification of the contemporary evidence at the defensible site of Katalimata in the Cha Gorge (Ierapetra).²⁰ Together with several other hilltop sites, identified by Hood,

⁹ This concerns for example the building at Katsamba: Alexiou 1956; 1957; and the Neolithic site at Magasa: Dawkins 1904–05. Both suffered from limited excavation techniques and later misinterpretations. Recently, however, some attempts have been made to republish the material and to put the sites in proper chronological contexts within the Cretan Neolithic, see Galanidou and Manteli 2008.

¹⁰ For example: Stavros (Akrotiri) Leras Cave: Guest-Papamanoli and Lambraki 1976; Gerani: Tzedakis 1970, 474–476.

¹¹ According to Manning 1995, 168.

¹² Sampson 2006, 246.

¹³ Warren and Hankey 1989, 121 and 169.

¹⁴ See for example the number of Final Neolithic sites in Nowicki 2003 (76 sites); 2008a, map on p. 203 (99 sites); and in the gazetteer published in this book (172 sites).

¹⁵ Vagnetti and Belli (1978, 142) mentioned only six open-air settlements and four “undetermined” open-air sites for the Final Neolithic period in Crete.

¹⁶ Vagnetti 1973a.

¹⁷ Vagnetti 1973b.

¹⁸ Vagnetti 1973b.

¹⁹ H. W. Pendlebury, J. D. S. Pendlebury, and Money-Coutts 1935–36; Watrous 1982.

²⁰ Nowicki 2008b.

Warren and Cadogan in western Crete during the 1960s,²¹ the Mesara sites and Katalimata open the questions: 1) what was the reason for such a dramatic change of settlement pattern? 2) how did the problem of insecurity arise? 3) is the shift of early FN settlements to defensible locations directly related to the appearance of many new elements in material culture and social organization, which followed this shift during the late FN? The answers to these questions rely on the interpretation of the latest Neolithic phase, which lies between the aforementioned foundation of defensible settlements, of the Faistos and Katalimata types (somewhere in the first half of the fourth millennium BC) and the beginning of the Bronze Age (in the late fourth millennium BC). It is this very phase, though commonly regarded as a Neolithic one, that must be seen as a direct predecessor of the Bronze Age in Crete, responsible for most of the later social, economic and technological innovations. The clear differentiation between the two last Neolithic (Final Neolithic early [FN I] and Final Neolithic late [FN II]) phases in Crete²² seems to be the most important step towards understanding the origins of the Bronze Age civilization on this island.

The subject of the transition between the Neolithic and the Bronze Age in Crete cannot be properly analyzed if it is restricted only to this island. The process was much more complex and extended beyond Crete. Whatever our position on the role of migration in ancient cultural, social and economic change, the fact is that Crete in the fourth millennium BC was only one element in an Aegean Neolithic coming to its end. Other parts of the Aegean experienced similar problems during the same period, as can be concluded from settlement changes. The details of the process and the relationship between the events in different parts of the Aegean are still debatable, but the general direction of the changes (from the east to the west), and the time of their culmination (the second half of the fourth millennium BC), are beyond dispute. The most controversial issues seem to be 1) the role of the native inhabitants of the Aegean islands in these changes, 2) the way in which different population groups interacted with each other during the peak of the migratory movements, and 3) the length of a period of unstable settlement reflecting a time of intensified contacts, migrations and conflicts.

The archaeological evidence has several weak points in this respect. That is why my field research has been focused on filling the gaps, in particular regarding settlement distribution and topography. Thanks to these field investigations some hypotheses can be proposed which are based on a more secure database. Detailed analysis of the FN settlement patterns in Crete necessitates examination of the problems of settlement characteristics and their changes in the Dodecanese and on the Anatolian coast. New evidence from these regions of the Aegean offers closer comparanda to the Cretan material, than those used in the past, and may shed new light on the subject of the origins of the hypothetical immigrants who changed the Neolithic landscape of Crete.

History of Research

In this section I will focus only on the history of research related to the problems of the last phases of the Neolithic. Discussion of other aspects of research on the Cretan Neolithic will be restricted to a few issues related to the interpretation of the Final Neolithic.

The first discoveries of Neolithic evidence in Crete came from the earliest stage of archaeological activity on the island. Already in 1900, excavations at the two most important Bronze Age towns, Knossos and Faistos, brought to light rich deposits of this period and showed that the Bronze Age civilization had its deep roots in the Neolithic period. Knossos and Faistos yielded, however, two

²¹ Hood, Warren, and Cadogan 1964, 58–59; Hood and Warren 1966, 185.

²² Nowicki 2003.

different pictures of Neolithic development.²³ Knossos, founded in the Pre-Pottery Neolithic (PPN), was the only (so far) known archaeological site in Crete which followed the Near Eastern tradition of the “tell-type” settlement, involving regular rebuilding of houses, using more mud-brick and/or pisé than stones, on the same spot for thousands of years. Faistos’ origins were different and several thousand years later. The foundation of the site took place somewhere in the early fourth millennium BC, as a response to new historical conditions.

In Knossos, the crucial period of the latest Neolithic once seemed to be poorly represented, but the problem may have been wrongly addressed, as argued recently by Tomkins.²⁴ The latest Neolithic phase according to A. Evans was represented by Stratum I, and particularly by the buildings discovered in 1923 and 1924.²⁵ A better stratigraphic sequence, and pottery material for further studies of the last phases of the Neolithic in Knossos, were yielded by the excavations carried out by J.D. Evans in the late 1950s and early 1960s.²⁶ At Faistos the Neolithic deposits represent a much shorter sequence than at Knossos, and started with the latest phase of the period in the fourth millennium BC. Two sub-phases were differentiated by Pernier (*neolitico inferiore* and *superiore*),²⁷ though no clear definition of them was presented at that time. A similar pattern of two chronological phases, in the Faistian Final Neolithic, was recently proposed by Di Tonto and Todaro.²⁸ Among important sites or deposits from the latest phases of the Neolithic discovered in the early days of Cretan archaeology, two are worth special mention: Magasa and Gournia Sfoungaras.²⁹ Magasa was an isolated installation (a house and a rock shelter) located in an inland valley, on the East Siteia Peninsula. Sfoungaras was probably of similar character (a house or hamlet with a rock shelter behind), but located on the coast. Both sites, when excavated and published, did not match any adequate comparative material from Crete. Their dating, therefore, was tentative with a wide margin of accuracy. Sfoungaras seems to have been forgotten and has not been included in the discussions of the Cretan Final Neolithic.

A separate problem is the Neolithic finds from Cretan caves. The earliest excavations or surface research in Psychro,³⁰ Kamares,³¹ Amnissos,³² Miamou,³³ and Skales,³⁴ brought to light some Neolithic and EM I evidence, but the material was either not stratified or not excavated in a way likely to promote observation of original stratification. More careful excavation of a Neolithic cave was undertaken by Pendlebury in the cave of Trapeza Tzermiado, in Lasithi.³⁵ Yet despite careful digging methods, and substantial thickness of the deposit, Pendlebury was unable to work out a reliable sequence of the Late/Final Neolithic phases in the Lasithi plain. Evidence appeared to be disturbed and mixed anyway and it was not clear how long the cave had been used during the Neolithic, before it was converted (probably in the Early Minoan period) into a burial place.

After World War II excavations at two sites brought to light substantial evidence of the latest Neolithic phase. In 1950 a hilltop FN settlement was identified on the acropolis of Gortina and a somewhat earlier Neolithic site at Mitropolis, on the Mesara plain.³⁶ Gortina’s location is very similar to that of FN Faistos and both sites were probably founded under the same historical cir-

²³ Evans 1921, 32–55.

²⁴ Tomkins 2007.

²⁵ Evans 1928, 5.

²⁶ Evans 1964; Warren et al. 1968.

²⁷ Pernier 1935, 98–99.

²⁸ Todaro and Di Tonto 2008; Di Tonto 2009.

²⁹ Dawkins 1904–05; Hall 1912.

³⁰ Hogarth 1899–1900.

³¹ Taramelli 1901; Dawkins and Laistner 1912–13.

³² Marinatos 1929; Marinatos 1930; Betancourt and Marinatos 2000.

³³ Taramelli 1897.

³⁴ Bosanquet 1901–02, 235–236; Schachermeyr 1938, 474; Papadakis and Rutkowski 1985.

³⁵ H. W. Pendlebury, J. D. S. Pendlebury, and Money-Coutts 1935–36.

³⁶ Vagnetti 1973b, 1.

cumstances at exactly the same time. Another site, discovered by chance during construction work on the plain southeast-east of Chania near the village of Nerokourou about three kilometers south of Souda, represents one of very few late FN settlements, with no later EM I evidence, founded in a lowland zone without any concern about security, in remarkable contrast to the pattern along the southern coast. Vagnetti rightly pointed out that the excavation and publication of the Neolithic site at Nerokourou were of crucial significance “for the problem of defining the Final Neolithic sequence in Crete”.³⁷ It is a pity that the rescue excavations here were not continued, meaning that the size and character of the site remain unknown.

Recent excavations relating to the Final Neolithic period include the author’s investigations at Monastiraki Katalimata³⁸ and M. Tsipopoulou’s and Y. Papadatos’ rescue work at Petras Kefala.³⁹ An excellent example of a hilltop Final Neolithic settlement, probably contemporary with Monastiraki Katalimata, has been discovered by Haggis and Mook at Azoria.⁴⁰ The Petras project is of special interest since it is the first case in Crete where the transition between the last FN period and the earliest EBA I is so well represented in archaeological evidence. Studies of the material are underway, but several papers already give a new picture of the character of the FN to EBA transition. The weak point of the Petras project is that it was a rescue excavation restricted to a small part of the FN site. No further work is scheduled at the moment in the part of the hill occupied by the Neolithic–EM I site.⁴¹ That a large part of the site must have been completely destroyed can be deduced from the richness of pottery and stone tools visible along the heavily bulldozed and eroded eastern slope of Kefala. I have had the opportunity, however, to record a substantial part of the surface material from this area, under M. Tsipopoulou’s supervision,⁴² prior to the excavation led by Tsipopoulou and Papadatos north of the hill’s summit. This material may add some interesting new information on the foundation of the settlement and its connection with the oversea areas.

Similarly, the excavation at Monastiraki Katalimata was undertaken on a single terrace, and thus it is not certain how large the FN site was. There is no link between Katalimata and the beginning of the Bronze Age in the Ierapetra Isthmus, and it is clear that another FN phase must fill the time between Katalimata’s use and the Early Bronze I period. The relation between Katalimata’s early FN stratum and the later FN phase is also not well established yet, but several sites in the region of Ierapetra may be helpful in this regard. An extensive site has been identified on the hill of Stavromenos, 500 m east of Vainia, 3 km northeast of Ierapetra, with a chronological range and character similar to Petras Kefala. Preliminary studies of surface material have already been undertaken,⁴³ and more evidence is published in this book, but the site still awaits more comprehensive research and excavations. The majority of the earliest phase of occupation (the site was also an important LM IIIB–C settlement⁴⁴) represents the late FN (II) period and the earliest EB I (EM I). There are, however, occasional potsherds on the surface which indicate early FN (I) occupation, and thus the sequence between FN I Katalimata and the EM I in the Ierapetra Isthmus might be filled up by Vainia Stavromenos if the site is excavated in the future. FN deposits were also recorded during excavations at Pseira and Chrysokamino, in the Mirabello coastal region.⁴⁵ A unique early EM I site with defensible characteristics was partly excavated (and partly bulldozed before the

³⁷ Vagnetti 1996, 31.

³⁸ Nowicki 2008b.

³⁹ Papadatos 2007; 2008.

⁴⁰ Haggis et al. 2007.

⁴¹ Excavations continue north of the FN remains, in the lower part of the hill where the EM–MM cemetery was built. See Tsipopoulou 2012b; Betancourt 2012.

⁴² Nowicki 2003, 28 and fig. 32.

⁴³ Nowicki 2003, 29–32, and fig. 26.

⁴⁴ Nowicki 2000, 86–89.

⁴⁵ Betancourt and Davaras 2002, 19–20; Betancourt 2006, 69–76.