

ABSTRACT

The Evolution of Two Archaic Sicilian *Poleis*: Megara Hyblaia and Selinous

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This study attempts to revive T.J. Dunbabin's multi-dimensional approach to the history of Early Iron Age Sicily in *The Western Greeks* (Oxford 1948). Dunbabin recognised that archaic Sicily had no real history, and that any historical account involved combining the very scant documentary record with the fuller and ever-growing body of archaeological evidence to produce a framework for writing social and economic history. These innovative methods ended with Dunbabin, however: today the field is dominated by scholars impeded artificially by disciplinary boundaries, which discourage the productive combination of historical and archaeological sources, leaving a number of important questions in a sort of academic no man's land. In the introduction an overview of the study of Sicily since Dunbabin is given, and Dunbabin's own weaknesses are explored: Dunbabin modelled Greek colonisation in Sicily on modern British colonisation; such a decision strait-jacketed his image of the past, causing him to draw conclusions unacceptable today. The increase in the quantity of archaeological evidence since Dunbabin means that it is no longer possible to make an in-depth study of the whole of Sicily in a single volume. Consequently, the focus has to be considerably more restricted than Dunbabin's; specific questions need to be selected.

Megara Hyblaia and Selinous offer two particular advantages for studying the evolution of Greek settlement in Sicily: besides being Megarian, both are sufficiently well explored archaeologically to make historical investigation profitable, but they were founded a century apart on different sides of the island, in different environmental and socio-political contexts. The study itself is divided into two main parts, the first focusing on Megara Hyblaia and the second on Selinous; each of these two parts consists of five chapters, in which the same questions are asked of the evidence from the two sites, for comparative purposes. Chapters I and VI explore the background to settlement, with such subjects as the native world encountered by the settlers at the time of colonisation, pre- and proto-colonial activity, and the respective foundations of the colonies examined. Settlement development is the subject of chapters II and VII; the emphasis here is to monitor the successive stages of the physical growth of the colonies, and also to study the size and nature of the settlement itself. Chapters III and VIII deal with demography (particularly population size). The following chapters (IV and IX) use archaeological and written evidence to reconstruct socio-political history. Chapters V and X investigate environment and economy. In the closing chapter, after a review of the conclusions reached, the question of why Selinous evolved so differently from its mother-city is addressed. The thesis ends with brief consideration of the (Megarian) Sicilian contribution to the study of the *polis*.

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by

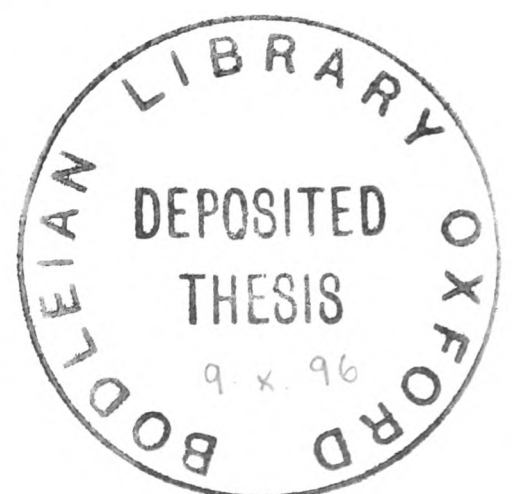
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"It would be a gain indeed to our knowledge, not only of this or that spot or people, but of the general history of mankind, if we could be admitted to see in detail the growth of any one colonial settlement of Greek or Phoenician days in the same way in which we can trace the early stages of not a few settlements of later times. We would fain be admitted to the acquaintance of the Smiths, the Bradfords, and the Winthrops, of Syracuse or of any other settlement in our story. We would fain see the exact steps by which a Greek city in a foreign land came into being, a city for the most part founded in a land already inhabited, and which, in the case of eastern Sicily at least, was certainly not founded in a land of mere savages."

E.A. Freeman, *The History of Sicily: from the earliest times*, i (Oxford 1891), 342.

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ABBREVIATIONS

Two types of abbreviations are included here. Bibliographic abbreviations of periodicals, major series, and frequently cited books constitute the first type, and non-bibliographic material, such as ceramic phases and major epochs in Mediterranean history, the second.

AA.VV.	various authors
AHI	Admiralty Naval Intelligence Divison, <i>Italy</i> , 4 vols. (<i>Geographical Handbook</i> B.R. 517, 517A-C; London).
AIIN	<i>Annali dell'Istituto Italiano di Numismatica</i>
AION	<i>Annali dell'Istituto Universitario Orientale di Napoli.</i> <i>Seminario di Studi del Mondo Classico. Sezione di</i> <i>Archeologia e Storia Antica</i>
AJA	<i>American Journal of Archaeology</i>
<i>Annales</i> ESC	<i>Annales. Economies, sociétés, civilisations</i>
AR	<i>Archaeological Reports (supplement to JHS)</i>
<i>ArchClass</i>	<i>Archeologia Classica</i>
ASAA	<i>Annuario della Scuola Archeologica di Atene e delle Missioni</i> <i>Italiane in Oriente</i>
ASNP	<i>Annali della Scuola Normale Superiore di Pisa Classe di</i> <i>Lettere e Filosofia</i>
ASSir	<i>Archivio Storico Siracusano</i>
ASSic	<i>Archivio Storico Siciliano</i>
ASSO	<i>Archivio Storico per la Sicilia Orientale</i>
BdA	<i>Bollettino d'Arte del Ministero della Pubblica Istruzione</i>
BAR	<i>British Archaeological Reports</i>
BCH	<i>Bulletin de Correspondance Hellenique</i>
BEFAR	<i>Bibliothèque des Écoles Françaises d'Athènes et de Rome</i>
BSA	<i>Annual of the British School at Athens</i>

<i>BTCGI</i>	<i>Bibliografia Topografica della Colonizzazione Greca in Italia e nelle Isole Tirreniche (1977-)</i>
<i>CAH</i>	<i>The Cambridge Ancient History</i>
<i>CAJ</i>	<i>Cambridge Archaeological Journal</i>
<i>CdA</i>	<i>Cronache di Archeologia</i> (new series created out of <i>CronASA</i> in 1972)
<i>CPh</i>	<i>Classical Philology</i>
<i>CRAI</i>	<i>Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres</i>
<i>CRDAC</i>	<i>Centro di Ricerche e Documentazione sull'Antichità Classica</i>
<i>CronASA</i>	<i>Cronache di Archeologia e di Storia dell'Arte</i>
<i>CR</i>	<i>The Classical Review</i>
<i>CQ</i>	<i>The Classical Quarterly</i>
<i>DdA</i>	<i>Dialoghi di Archeologia</i>
<i>DHA</i>	<i>Dialogues d'Histoire Ancienne</i>
<i>EAA</i>	<i>Enciclopedia dell'Arte Antica Classica e Orientale</i>
<i>EC</i>	Early Corinthian
<i>EIA</i>	Early Iron Age
<i>EPC</i>	Early Protocorinthian
<i>FA</i>	<i>Fasti Archeologici</i>
<i>FGrH</i>	F. Jacoby, <i>Die Fragmente der griechischen Historiker</i> (Berlin and Leiden 1923-58)
<i>GRBS</i>	<i>Greek, Roman and Byzantine Studies</i>
<i>IG</i>	<i>Inscriptiones Graecae</i>
<i>JFA</i>	<i>Journal of Field Archaeology</i>
<i>JHS</i>	<i>Journal of Hellenic Studies</i>

<i>JRA</i>	<i>Journal of Roman Archaeology</i>
<i>JRS</i>	<i>Journal of Roman Studies</i>
LBA	Late Bronze Age
LG	Late Geometric
LPC	Late Protocorinthian
<i>MAL</i>	<i>Monumenti Antichi dell'Accademia dei Lincei</i>
MBA	Middle Bronze Age
<i>MDAI(A)</i>	<i>Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung</i>
<i>MDAI(R)</i>	<i>Mitteilungen des Deutschen Archäologischen Instituts, Römische Abteilung</i>
<i>MEFRA</i>	<i>Mélanges de l'École Française de Rome, Antiquité</i>
MG	Middle Geometric
<i>MH i</i>	G. Vallet, F. Villard & P. Auberson, <i>Mégara Hyblaea</i> , i: <i>le quartier de l'agora archaïque</i> (Rome 1976).
<i>MH ii</i>	G. Vallet & F. Villard, <i>Mégara Hyblaea</i> , ii: <i>la céramique archaïque</i> (Paris 1964).
<i>MH iii</i>	G. Vallet, F. Villard & P. Auberson, <i>Mégara Hyblaea</i> , iii: <i>guide des fouilles. Introduction à l'histoire d'une cité coloniale d'Occident</i> (Rome 1983).
<i>MNIR</i>	<i>Mededeelingen van het Nederlandsch historisch Institut te Rome</i>
<i>Mozia</i>	AA.VV., <i>Mozia</i> , i-ix (Rome 1964-78).
MPC	Middle Protocorinthian
<i>Nsc</i>	<i>Notizie degli Scavi di Antichità</i>
<i>OJA</i>	<i>Oxford Journal of Archaeology</i>
<i>PBSR</i>	<i>Papers of the British School at Rome</i>

<i>PCPhS</i>	<i>Proceedings of the Cambridge Philological Society</i>
<i>PdP</i>	<i>La Parola del Passato</i>
<i>PECS</i>	R. Stillwell, W.L. MacDonald & M.H. McAllister (eds.), <i>The Princeton Encyclopedia of Classical Sites</i> (Princeton 1976).
<i>QuadMess</i>	<i>Quaderni dell'Istituto di Archeologia della Facoltà di Lettere e Filosofia dell'Università di Messina</i>
<i>RA</i>	<i>Revue Archéologique</i>
<i>RAL</i>	<i>Rendiconti dell'Accademia dei Lincei. Classe Scienze Morali Storiche e Filologiche</i>
<i>RBPh</i>	<i>Revue Belge de Philologie et d'Histoire</i>
<i>RE</i>	<i>Paulys Real-Encyclopädie der classischen Altertumswissenschaft</i>
<i>RFIC</i>	<i>Rivista di Filologia e d'Istruzione Classica</i>
Σ	Scholiast or ancient commentator on an ancient author
<i>SE</i>	<i>Studi Etruschi</i>
<i>SEG</i>	<i>Supplementum Epigraphicum Graecum</i>
<i>SG</i>	Subgeometric
<i>SicArch</i>	<i>Sicilia Archeologica</i>
<i>SMEA</i>	<i>Studi Micenei ed Egeo-anatolici</i>
<i>WA</i>	<i>World Archaeology</i>
<i>ZPE</i>	<i>Zeitschrift für Papyrologie und Epigraphik</i>

INTRODUCTION

The Problems: ancient and modern

Archaic Sicily has no history.¹ The closest thing to a historical narrative that we possess is to be found at the two ends of this epoch.² For the earliest period, the bulk of the information is provided by four chapters of Thucydides (vi.2-5), who, in giving a basic outline of the island's inhabitants, both mythical and real, records much about the establishment of (particularly Greek) Sicily's settlements. The narrative resumes only around 510, when historical events in Greece and Sicily overlap, and, thanks mainly to Herodotos, we have an outline of the exploits of Dorieus, Hippokrates, and Gelon, a mere shadow of the turbulent end to archaic Sicily. The heart of the archaic period, which contains the centuries of development of the island's communities, has even less documentation. Archaic Sicily, therefore, is really prehistoric, or at best protohistoric.

The study of document-poor archaic Sicily must be archaeological. Dunbabin (1948: 48) stated that "The internal development of the cities and their relations are most obscure. We have only a number of isolated facts which lack their setting. The literary authorities can be supplemented by the more complete archaeological record." The handling of material remains in such a way as to produce archaeological history³ is the major contribution of Dunbabin's classic book. Dunbabin's account is badly in need of revision, but subsequent studies have never combined archaeology and history into a

¹ "For long periods, the paucity of documentary evidence means that there is little story to tell..." (Rutter 1986: 142). The number of inscriptions has grown somewhat in recent years; generally speaking, however, "...the epigraphical material of the Greek west is poor..." (Berger 1992: 13). Of the surviving inscriptions, "...l'épigraphie civique est extrêmement mal représentée en Sicile..." (Dubois 1989: xi).

² As reflected in, e.g., Freeman (1891-4: i.449-458); Dunbabin (1948: 8-23, 300-434); Finley (1979: 27); Holloway (1991: 43, 45).

³ "Though so much of the material is archaeological and can be discussed only by archaeological methods, I have tried to keep before me the purpose of writing a history" (Dunbabin 1948: vii).

single approach in quite the same way.⁴ Historians have concentrated their efforts on examining the impoverished written sources:⁵ the rise and fall of archaic Sicily, as recorded in the sources, have been so fussed over that Morel (1984: 123-124) sees these topics as less important in the next generation of scholarship. By its very nature, this sort of historical approach produces a piecemeal picture. Archaeologists, on the other hand, have limited their focus to art history and to confirming the veracity of written sources;

⁴ This very point is made by Holloway (1980: 356) as regards the study of early Italy as a whole: "It is likely that these [sc. archaeological historical] approaches will soon be applied on a greater scale to the area of Greek colonization (in the 8th, and 7th centuries B.C.) in southern Italy and Sicily. The last synthesis of archaeology and colonial history of these regions was made in 1949 [*sic*, in fact 1948, citing Dunbabin in footnote eight]." The failure to continue in Dunbabin's footsteps may be due simply to the fact that scholarship in Sicily has since been dominated by Italian (especially Sicilian) scholars, with the remaining work made up by French-, German-, and English-speaking scholars in that order. "Publications in English on topography and excavations since Dunbabin's time have been few" (Holloway 1984b: 267). Compare also the opening remark of Lintott (1993: 449), reviewing Berger (1992), indicating the lack of study by the English-speaking world: "An addition to the small number of books in English on the Greeks in the West is in principle to be welcomed." Consequently, there have been few opportunities in Sicily for the Dunbabin tradition to influence scholars working there. The brief reaction of a prominent Sicilian classical archaeologist to the English-speaking world's New Archaeology may well serve to illustrate wider opinion on outside thinking: "Sono noti i diversi metodi oggi in uso per l'indagine archeologica; da un lato «l'approccio di tipo meccanicistico-positivista proposto alla ricerca archeologica in particolare dalla 'New Archaeology' d'origine anglosassone e le implicazioni della contrapposizione di esso all'approccio c.d. tradizionalista, cioè sostanzialmente storico» più vicino alla nostra sensibilità e alla nostra cultura: non neghiamo però gli aspetti altamente positivi che il metodo anglosassone comporta" (V. Tusa 1980-81: 819; *my italics*). Tusa seems to imply a loss of distinctiveness and culture in adopting foreign archaeological thinking. The "aspetti altamente positivi" of the New Archaeology have yet to be incorporated into Sicilian classical archaeology, probably because, as V. Tusa (1986a: 69) states elsewhere, "Ancora oggi l'Archeologia è abbinata, nelle cattedre universitarie, e conseguentemente nella opinione di molte persone, alla storia dell'arte: questo è un concetto ormai superato in altri Paesi, ma nel nostro è ancora duro a morire."

⁵ See, for instance, Bérard (1957); R. Van Compernelle (1959); von Stauffenberg (1963); M. Miller (1970); Asheri (1980); Roebuck (1980); Berger (1992); cf. also Gomme et al. (1970: 198-219). The general line of thinking of these text-based historians is summed up by R. Van Compernelle (1984-85: 24): "Soltanto lo studio approfondito e simultaneo di tutte le fonti, qualsiasi siano, ci consentirà di far progredire ancora di più la nostra conoscenza della Sicilia antica." An exciting and welcome addition to the study of the literary sources is Dougherty (1993a-b). Cf. also Dench (1995).

the rich archaeological material that has accumulated since Dunbabin is rarely, if ever, analysed independently.⁶ The unfortunate result of these approaches is that numerous key matters are left unexamined, left, in a sort of no man's land, belonging to neither one nor the other discipline as presently practised.⁷

Archaic Sicily has been reduced to questions about the foundation of cities and about the architecture and sculpture with which they were later adorned. Another side to archaic Sicily exists untapped, one that requires the application of unconventional questions and procedures (Osborne 1993: 462), in order to take in the unclaimed academic ground. A decade ago Gras (1986: 16) still felt the need to urge colleagues that "L'archéologie a fait connaître la réalité des implantations; il est secondaire de savoir si Syracuse a été fondée quelques années avant ou après Mégara; mieux vaut tenter de comprendre, pour le moment, les caractères du développement des sociétés coloniales du haut archaïsme." This is the very direction in which Dunbabin made an early lead, and it is an initiative which this thesis intends to take up.

But Dunbabin's pioneering activity needs more than simply updating: the interpretative framework which Dunbabin employed is seriously problematic.⁸ All scholarship is subject to, in some way, the influence of contemporary world issues and

⁶ As this study will have occasion to demonstrate. Similar remarks about this restrictive focus have been made by Morel (1984) and Fischer-Hansen (1995: 7).

⁷ This should not cause surprise. It has been argued, for instance, that disciplinary boundaries have prevented the asking and answering of crucial questions concerning the nature and development of modern industrial societies (Wolf 1982: 7-19; cf. Trigger 1989: 373). Holloway (1991), both a prehistorian and classical archaeologist, has not bridged the gap for Sicily.

⁸ This interpretative framework has been variously noted in the past (Finley 1979: 202; Cordano 1986: 17; Asheri 1988a: 3; Lepore in Pugliese Carratelli 1989: 426; Cusumano 1994: 39; Shepherd 1995: 51), but has not received the full attention it deserves.

preoccupations.⁹ In Dunbabin's case, these took the form of contemporary colonialist and imperialist attitudes.¹⁰

The general political situation of the time sets the scene. It was the era of colonialism, and the British Empire was a major contender in world affairs. By the 1930s Britain had held the whole range of possible relationships a coloniser could maintain: from still dependent possessions to former ones, which had peacefully achieved independence, progressively becoming nations in their own right. The British Empire permeated every quarter of the globe, and left a lasting impression, both at home and abroad, on every facet of life.

Dunbabin was a native of Australia, which was one of those few places within the British Empire that had already entered the final evolutionary phase of colonialism, namely nationhood. A decade before Dunbabin's birth in 1911, Australia had federated, uniting the entire continent into a single political entity, which continued to impose European, particularly British, culture on this alien landscape. The Australia of Dunbabin's upbringing was quite heavily reliant on Britain, and still very much a colonial frontier; these factors both played a decisive part in Dunbabin's selection of a research topic and also contributed to how it was tackled: "I have drawn much on the parallel to the relations between colonies and mother country provided in Australia and New Zealand" (Dunbabin 1948: vii).

⁹ "...archaeology does not function independently of the societies in which it is practised" (Trigger 1984a: 368). Greek archaeology is no exception (Morris 1994b; Shanks 1996: 65-68, 81-91). Graham (1983: xxxv-xxxvi) remarks on how the study of ancient colony/mother-city relations received special attention at the time of the American Revolution. Graham's own book, originally published in 1964, was written at a time of intense colony/mother-city relations, the modern era of decolonisation.

¹⁰ Note Said (1993: 6): "We are at a point in our work when we can no longer ignore empire and the imperial context in our studies."

From Australia Dunbabin came to Oxford. He was an undergraduate at Corpus Christi College in 1929-33 (a contemporary of Sir Isaiah Berlin), a Fellow of All Souls College from 1936, and Reader in Classical Archaeology from 1945, until his death a decade later.¹¹ The sentiments of that generation of Australians have been summarised as follows (Legge 1988: 89):

In the late [19]30s...Australian attitudes to Britain still had strong elements of attachment to a mother country: traditional loyalty, affection, a sense of kinship and the rest. The term 'home' to refer to Britain was still current usage. And for many academically minded young Australians the journey to Oxford was a part of that general outlook.

The Oxford Dunbabin encountered contained both critics and, more prominently, champions of the British Empire (Symonds 1991). All Souls College, to which Dunbabin gained entry, saw itself as running the British Empire (Symonds 1991: 3, 72-73). Discussions of the Empire generally found a natural home in the Oxford academic milieu, and just as scholarship had a hand in directing the course of Empire, so too the Empire had an effect on scholarship (Symonds 1991: *passim*). An example of the latter, of especial relevance here, is the translation into classical Greek scholarship of the superiority encouraged by Empire, mediated through the Victorian fascination and self-identification with the ancient Greeks; the combination of these two ingredients produced an imperialist superiority complex in which things Greek (mirroring things British) were unhesitatingly

¹¹ All of these details can be found in Dunbabin's obituary in the *Oxford University Gazette* (no. 2852 vol. lxxxv, 28 April 1955, p. 862), with additional details of the Readership taken from Boardman (1985: 52). Cf. also *Who's Who* 1955 (London), p. 852.

regarded as inherently supreme.¹² In Dunbabin's Oxford, examples of such pro-Hellenic sentiment by Oxford classical scholars can be found in the literature, well exemplified by the displeasure expressed by Casson (1927) and Payne (1927) over Randall-MacIver's (1927) Etruscan challenges to Hellenic supremacy (*cf.* Ridgway 1983: 573 with n. 2). Although he argued with Payne on other grounds (*cf.* Ridgway 1990: 61), Dunbabin's teacher, Blakeway, was another staunch supporter of Hellenism.¹³ It is appropriate enough that Beazley should further display this attitude in the foreword to Dunbabin's final book, published posthumously.¹⁴ It was amid such a strong pro-Hellenic atmosphere that Dunbabin's scholarship was fostered and developed.

The combination of these life experiences gave Dunbabin's work a unique twist. On the one hand, Dunbabin was a "colonial", brought up in a new country that attempted to define itself against a native substratum, all the while under the shadow of the imperial system that had created this situation in the first place. On the other hand, Dunbabin trained and taught in the mother country, and so was exposed to her attitudes from this angle as well.

¹² Ridgway (1983; 1989; 1990) has studied various aspects of this superiority complex. Note also Whitehouse and Wilkins (1985: esp. 102), Morris (1994b: *passim*), Dench (1995: 218-219), and Shanks (1996: *passim*). For the Victorians and the ancient Greeks, see Jenkyns (1980); Turner (1981); and Bernal (1987: ch. 7).

¹³ "Alan Blakeway introduced me to the subject, and many of his views will be recognized here" (Dunbabin 1948: vii). "Negli studi del Blakeway [1932-33; 1935] il commercio precoloniale si svolgeva decisamente fra superiori e inferiori. Per lui, gli indigeni erano barbari, la cui unica funzione storica era quella di essere ellenizzati--e, presumibilmente, grati--ma non certo studiati in sé e per sé..." (Ridgway 1989: 113).

¹⁴ "In the West the peoples with whom the Greeks came into contact were at a more primitive stage of development than they themselves..." (Beazley in Dunbabin 1957: 5). Boardman acted as the book's editor.

This background to the general conditions and influences around Dunbabin lays the groundwork for exemplifying the questionable interpretative framework found in his great book of 1948. The essence of the problem is that Dunbabin supported several weighty conclusions with negative and/or suppressed archaeological evidence, which he sometimes bolstered up with descriptions of sites claimed as having been explored in a "thorough" or "extensive" manner: in reality these descriptions, some inappropriate even today, were rarely justified in Dunbabin's day.¹⁵ But what is behind the significance of this practice? The root of the problem is that the comparison Dunbabin chose to make with modern British colonisation was both misleading and a hindrance, constraining the possible ways at looking at the archaeological evidence. This very problem has attracted the attention of scholars: Finley (1976: 174) comments on the potential pitfalls that the adoption of modern colonial terminology and thinking may bring to the interpretation of the past:¹⁶

The nuisance is word magic: words unavoidably carry their semantic clusters with them, and, once a settlement is labelled a colony, that word's cluster becomes attached. Anyone familiar with the literature about the early Greek and Phoenician settlements will immediately recognize the symptoms. Commercial domination, monopoly, even export drives occur and recur in the literature, not because the evidence suggests these things but simply because we have acquired the unfortunate habit of calling the settlements 'colonies'.

On the handling of archaeological evidence and models Boardman (1980: 10) has the

¹⁵ Compare V. Tusa's (1982: 189-190) remarks on Payne's overstatement of the extent of the pre-1930 excavations at Selinous for the study of Korinthian pottery chronology. Payne's statements on Selinous certainly influenced Dunbabin's own (1948: 43 n. 4).

¹⁶ Also pointed out recently by others: Casevitz (1985: 9 n. 1); Cordano (1986: 15-17); Purcell (1990: 56); Gabba (1991); Osborne (1997). Contrast Descoeudres (1990).

following to say:

They [*sc.* the archaeological data] are mute, therefore they cannot lie, but we may misinterpret them by failing to allow for their incompleteness, or through inability or unwillingness to treat them on their own terms rather than dictated by modern typologies and models. (These are too readily thought to carry some near-divine sanction, while in fact they are no more than aids to orderly thought, some degrees more useful than a typewriter and potentially far more dangerous when abused.)¹⁷

Dunbabin's adoption of what Finley calls an "unfortunate habit" strait-jacketed the ancient evidence. Dunbabin made the evidence fit the model--something against which Boardman warned--manipulating it in various questionable ways to do so. These claims are well illustrated by Dunbabin's treatment of two broad topics, the natives and the Sicilian Greeks. I begin with the natives.

Dunbabin's treatment of the natives may be broken down into two subheadings: (1) the character and abilities of the natives, and (2) the racial and cultural relations between natives and Greeks. On the character of native culture Dunbabin concludes as follows:

They were considerable metal-workers, especially in bronze, the material of their most ambitious artistic efforts, some small figurines. They showed much skill in the cutting of tombs in the native rock, but there is little evidence that they exercised skill or elaboration in their dwelling-places; the 'palace' of Pantalica, a rough stone building vaguely reminiscent of the Mycenaean megaron, is without parallel in the prehellenic period. The size of some of their settlements, notably Pantalica, indicates that they had reached some degree of political and economic organization, but this hardly went beyond tribal groups of

¹⁷ It is interesting to note that these words do not appear in the first two editions (1964 and 1973) of Boardman's book. Boardman's warning may have originally been intended against the New Archaeology, but the misuse of models in archaeological interpretation is a problem common to all archaeology, and in any case Boardman's point was made in the spirit of generality.

villages. (Dunbabin 1948: 42-43)

The Sikels appear to have been a fairly peaceable people. Their sites, though naturally strong, were not fortified, and they seldom buried weapons in their graves. (Dunbabin 1948: 113).

With regard to Greek/native racial and cultural relations, Dunbabin (1948: vi) says that "I am inclined to stress the purity of Greek culture in the colonial cities, and find little to suggest that the Greeks mixed much with Sikel or Italian peoples, or learnt much from them." The purity of Greek culture was judged against the archaeological evidence, most notably graves (Dunbabin 1948: 44-47, 192); the argument runs along these lines: only the existence of specifically native objects in Greek contexts could vouch for native presence. In the event of the occurrence of any native items, they were explained as belonging to either native slaves, or to "completely hellenized" (Dunbabin 1948: 47) people of full or part native origin. But the latter of these two classes of native individuals represented an "...admixture of Sikel blood [that] was so slight as not to affect the purely Greek culture" (Dunbabin 1948: 45, *cf.* 129). Therefore, according to Dunbabin (1948: 189),¹⁸ little or no "miscegenation or profound cultural influence" took place.

This picture of native culture was tendentious even in terms of the archaeological data available to Dunbabin. When the character and abilities of the natives as portrayed by Dunbabin are contrasted with Pace's (1935-49: i.329-366) roughly contemporary synthesis of (largely Orsi's) work on native Sicily, some notable, and telling, differences

¹⁸ Where the words are used in connection with the influence of native language and legend, but are more widely applicable to represent Dunbabin's general view.

come into view.¹⁹ The peaceable character ascribed to the natives is open to serious doubt. To arrive at the conclusion that native sites were unfortified, Dunbabin (1948: 97-98) redates, contrary to Orsi's original assessment (through excavation), the fortifications at two prominent native sites, Finocchito and Pantalica, to Byzantine and classical times, and simply claims for two other sites, Mendolito and Monte Bubbonia, that their fortifications are Greek.²⁰ As for arms buried in tombs, there are examples from Caltagirone and Pantalica in Pace (1935-49: i.362, 365). The burial of arms in graves shows the importance of the warrior element in native society (see ch. I below). The population estimates in Pace (1935-49: i.364-365), of 90,000 inhabitants for the Siracusano alone, estimates which would have supplied Dunbabin with insights into the political organisation of this warrior-led society, are also missing, although it is briefly admitted that at Pantalica "The thousands of graves show that there was an extensive population" (Dunbabin 1948: 95). A similar misrepresentation of the evidence is encountered at Sant'Angelo Muxaro, said to be "thoroughly excavated" (Dunbabin 1948: 141). Although the tholos tombs of this native site are described as "...the largest in Sicily..." (Dunbabin 1948: 139), their dimensions are not stated, leaving the reader without an idea of their impressive size and achievement. In discussing the grave-goods, Dunbabin (1948: 140) is selective, focusing largely on pottery, particularly the imported Greek

¹⁹ It is important to note that this first instalment of Pace's multi-volumed history of Sicily was stamped as having been received by the Haverfield Library of Ancient History in Oxford in April 1936. Dunbabin consulted the book for both the thesis (Dunbabin 1937) and final version (e.g., Dunbabin 1948: 43 n. 2).

²⁰ Note Tréziny (1986a: 189 n. 24): "...le scepticisme de T.J. Dunbabin...n'est pas justifié." Mendolito certainly was, and had always been, native (Coarelli & Torelli 1984: 339), and Monte Bubbonia probably so, as argued by its recent excavators, who at the same time raise the general difficulties of giving the site a secure ethnic label (Pancucci & Naro 1992: 172-173). For Finocchito and Pantalica, see ch. I below.

material. No mention is made of the impressive gold finds discussed by Pace (1935-49: i.156-157).²¹ From reading Dunbabin's account of Sant'Angelo Muxaro, the reader is left with the distinct feeling that if this native site was "thoroughly excavated", and its finds amounted to only pottery (from tholos tombs of unspecified dimensions), it was accordingly not an important place in antiquity. The evidence suggests otherwise (see ch. VI below). Generally speaking, the problem is one of suppressing and dismissing positive evidence against a sea of negative evidence, as in the isolation of the "palace" at Pantalica as an *unicum*. Such a procedure has no force given the scarcity of comparative evidence: little is still known of native settlements and their architecture, but the picture that is shaping up vis-à-vis the Greek is a cautionary corrective to previous notions.²² In the end, the reader gets no clear picture of the skill and sophistication of the natives, even though Dunbabin (1948: 42) alludes to "considerable metal-workers" and "much skill in the cutting of tombs". Such descriptions become concessions which merely reinforce Dunbabin's generally negative picture.

"Racial purity" is a problematic notion--and one which it is very surprising to find

²¹ Contrast this with Dunbabin's (1948: 67) earlier precision in representing faithfully the proverbial wealth of Greek Leontinoi in its "...small and isolated finds..." of gold and bronze.

²² Of what did Dunbabin think the Greek "cities" of early archaic times consist? The idea of "tribal groups of villages" can also be applied to them (for Megara Hyblaia, see ch. IV). In this connection attention can also be drawn to another of Dunbabin's (1948: 116) remarks--that a well-built house at Monte San Mauro "obviously" belonged to a Greek settler. For the ancient and modern myth that barbarians lived in villages, and civilisers in cities, see Frederiksen (1976: 341; cf. Dench 1995: 130-131). Contrast now, however, Leighton (1993: 274): "The indigenous communities encountered by the early settlers must have been more substantial than is generally assumed. Little is known about the layout and size of their settlements, although most individual houses of the Ausonian II and Cassibile periods are bigger and more elaborate than the rather cramped dwellings of the first phase at Megara Hyblaea."

so prominent in a book published just after World War II²³--but three points relating to Dunbabin's discussion may be raised. First, judgement of racial purity from artefacts is not as simple as Dunbabin made it out to be; such a connection raises more objections and uncertainties than it can hope to resolve (see ch. IV). In the preface to the thesis version of the book, Dunbabin (1937: iv), stating the limits and limitations of his study, had affirmed: "I have avoided ethnological discussion because the literary evidence has been discussed *ad nauseam* and the archaeological evidence can never answer questions of race." On the latter point, why did he change his mind? Second, Dunbabin inflated his argument about limited native elements amongst the Greeks in the following ways: "In the thousands of graves which have been excavated at Syracuse, Megara, Gela, and other sites of Sicily..." (Dunbabin 1948: 192), or "Megara has been thoroughly excavated and neither the town nor the cemetery has yielded a single Siculan vase or bronze" (Dunbabin 1948: 44). In point of fact, the amount of funerary and settlement evidence involved was by no means sufficient to base arguments from silence on; these early excavations often also suffered from inadequate or lack of publication. The case of Megara Hyblaia can serve to illustrate these problems. If we follow Dunbabin's (1948: 454) own practice of estimating what percentage of the original tombs is represented by the existing archaeological sample, the graves consist of an infinitesimally small number: "...the thousand-odd graves discovered at Megara are still a small fraction of all the burials which took place during its existence." Only 311 graves, out of about one thousand, were properly published in Dunbabin's time (Orsi & Cavallari 1890: 765-912); the next third were less properly published (Orsi & Caruso 1892); the remaining third were altogether

²³ "In the wake of the Holocaust, the consequences of nineteenth-century racial theory were revealed all too brutally, and the study of ethnic identity became something of a taboo" (Hall 1995a: 83).

unpublished. Since Dunbabin, Megara Hyblaia's cemeteries have produced important surprises, including crucial evidence of a native element amongst the population (see ch. IV below). As regards the settlement, if it was really "thoroughly excavated" in Dunbabin's time, then today, after thirty years of exploration, it would probably have to be described as "very thoroughly excavated." However, that is still far from the case.

That Dunbabin showed acute concern for racial composition may be revealing in another way. In the later nineteenth and early twentieth centuries, intellectuals began ascribing ethnic differences of the peoples of the world to biological factors; one of the key elements in this discussion, which gave it scientific substance, was the emergence of Darwinian evolutionism (Trigger 1989: 111, 113-114; Said 1993: 100-101). Around the mid-nineteenth century Gobineau's connection of such ideas with human history influenced scholarship, including classical,²⁴ for decades to come:

...Gobineau believed that the fate of civilizations was determined by their racial composition and that the more a successful civilization's racial character was 'diluted', the more likely it was to sink into stagnation and corruption. In particular he proclaimed that European societies would flourish only so long as their members avoided 'miscegenation' with non-European strains. (Trigger 1989: 111-112)

Gobineau's appeal to Europeans would not have fallen on deaf ears, as European colonialism was in and around that time at its height, and the ethnic differences so observed made native cultures require explanations for their state of being. These

²⁴ Gobineau wrote on the ancient Mediterranean as well; for discussion, see Bernal (1987: 220, 236, 240-241, 245, 338, 342-345, 352-355, 360-362, 364, 382, 396, 404). Roman historians explained certain social differences in similar terms: an "...influential nineteenth-century theory maintained that patricians and plebeians were descended from different ethnic groups. This notion enjoyed a tremendous vogue in the period from the 1870s to the First World War" (Cornell 1995: 243; cf. Dench 1995: 2; C.J. Smith 1996: 51).

explanations, coupled with Gobineau-type beliefs, led to racial mixing, between European and native, being regarded as taboo (for such ideas in Oxford, see Symonds 1991: 25, 44, 76-77, 162, 299-300). Dunbabin's interest in racial purity, of keeping natives and Greeks apart at all costs, leaves little doubt he was quite concerned about this issue (compare Gallo 1983: 715 n.64). But what is odd about this is that it appears to be out of place for archaic Sicily (and south Italy too). As Dunbabin (1948: 42) himself stated, "The inhabitants of both Sicily and South Italy at the time of Greek colonization were of similar stock to the Greeks, speaking in the most general terms. They were of a Mediterranean base, more or less penetrated by northern elements derived immediately from the Balkan peninsula, and spoke an Indo-European language." Thus the application of ideas of racial purity to archaic Sicily is somewhat meaningless (see further n. 12 in ch. III): in Sicily the natives were certainly culturally, though not racially distinct. The need to give the successful Greek civilisation of Sicily a pure racial base may have arisen more from modern concerns with such matters than from ancient reality.

The foregoing points, taken together, would strongly suggest that the picture Dunbabin built up of native culture is tinged by what is today known as colonialist archaeology,

...which developed either in countries whose native population was wholly replaced or overwhelmed by European settlement or in ones where Europeans remained politically and economically dominant for a considerable period of time. In these countries, archaeology was practised by a colonising population that had no historical ties with the peoples whose past they were studying. While the colonisers had every reason to glorify their own past, they had no reason to extol the past of the peoples they were subjugating and supplanting. Indeed, they sought by emphasising the primitiveness and lack of accomplishments of these peoples to justify their own poor treatment of them. (Trigger 1984a: 360)

Such archaeology is widely paralleled in many parts of the world, including Australia (Trigger 1989: 119-145; *cf.* Said 1993: xi, 9, 106), and it is a type of archaeology which, I suggest, Dunbabin carried over to his subject: the natives are made to appear primitive and without accomplishment.²⁵ The attitude is that the natives are "...to receive the benefits of [Greek] civilization..." (Dunbabin 1948: 129),²⁶ where "hellenization" may be carried out "by force" or by "...being slowly effected by peaceful trading" (Dunbabin 1948: 378). Therefore, "[Greek] colonization was not a series of accidents but a deliberate policy" (Dunbabin 1948: 47).²⁷ This superiority was helped along by negative and suppressed evidence (for which Dunbabin's model of colonisation had no room), sometimes inflated with false statements about the character of the evidence itself.

The glorification of the Greek colonisers reaches its end when discussion of relations with Old Greece begins. In Dunbabin's view, these Sicilian Greeks knew their place vis-à-vis their homeland, following in all matters the mother country; hence:

²⁵ For colonialist attitudes in the study of the native cultures of the Mediterranean, note now de la Genière (1995: 29). Ridgway (1990: 62), commenting on Beazley's (in Dunbabin 1957: 5) characterisation of native culture quoted above, says that "...'primitive' is not an adjective that I would willingly apply today to the Italian Iron Age".

²⁶ But nowhere is the reverse mentioned, since the Greeks received no benefits of native civilisation. The emphasis is really on Greek civilisation in Dunbabin; take, for instance, the layout and content of his chapter I. Discussion of the native world occupies just under 7% of the entire space, and appearing as an appendix-like section only after the foundation of the Greek colonies.

²⁷ To be fair, these quotations have been culled from larger contexts; nevertheless they may stand as fair summations of Dunbabin's opinion of the natives. The attitude is rather similar to that of Chamberlain, the Secretary of State for the Colonies (1895-1905) in Lord Salisbury's Conservative Ministry, who is quoted by Graham (1970: 208): "...the Empire also appealed to him as a great civilizing force, embracing with compassion as well as profit, the long-neglected 'lesser breeds'. Like Kipling, he contemplated the 'White Man's burden' romantically, but without pretence. 'You cannot', he said, 'make omelettes without breaking eggs; you cannot destroy the practices of barbarism, of slavery, of superstition...without the use of force.'"

"Politically the colonies were as conservative as they were economically and artistically" (Dunbabin 1948: 376). Given the strong dependence envisaged between mother country and colony, it was natural that "...relations between colony and metropolis could only be sentimental" (Dunbabin 1948: 186). In this world, "The movement of distinguished colonials back to the mother country..." (Dunbabin 1948: 75) is a phenomenon that also mattered. As for economic affairs, the rôle of the Sicilian Greek colonies is likened to the relationship "...Great Britain has held with the Dominions" (Dunbabin 1948: vii). Thus "They were, like Australia until a few years ago, producers of raw materials, with a few staples on which they grew rich, and importers of manufactured goods" (Dunbabin 1948: vii). Dunbabin draws parallels: western Greek wealth is thought, like Canada's, to have derived from wheat (Dunbabin 1948: 214), and, for the importation of manufactured goods, it is argued that "Colonial industry, before the fifth century at least, was unimportant.... There was no manufacture of the typical Greek product, painted pottery, on any but the smallest scale" (Dunbabin 1948: 259). If the latest pottery styles were not being imported from the mother country, as was apparently the case with archaic red-figure (though see now Curry 1993), it is declared that "...the Sicilian Greeks are to be accused of indifference and lack of taste" (Dunbabin 1948: 245). In any case, the colonies did not maintain such a close economic relationship with the mother country forever: the change in the pattern of pottery importation from Corinthian to Attic is seen as an early indication of "...a sort of economic nationalism which should seek by all means to throw off their previous excessive dependence on Corinth" (Dunbabin 1948: 249). The latter move by the Sicilian Greeks is but part of a larger evolutionary process, culminating in the Battle of Himera in 480:

Though wars, internal and external, do not cease, the

generation after Himera is one of peace and prosperity and the triumphs which ennoble it are those of art and literature. As in Greece the Persian Wars mark the end of archaism and are succeeded by the full glory of the Athens of Kimon and Perikles, so in Sicily the battle of Himera is the last stage of the growing up of the colonies. As the British colonies found their nationhood at Anzac and their full independence in the years which followed, so it is not too fanciful to take Himera as the sign that the Sicilian colonies were now the equal of the cities of Greece. (Dunbabin 1948: 431-432)

This crucial turning-point brings to an end the previous terms of the relationship, as seen by Dunbabin: the Sicilian Greeks were at first tightly tied to the mother country's apron-strings, being completely reliant on her for all innovation and direction; very gradually such a stranglehold gave way to a more balanced relationship, where the Sicilian colonies were left to fend for themselves.

This reconstruction raises problems similar to those encountered with the treatment of the natives. Once more the picture is based on negative and/or selective evidence, determined by the spectacles of Dunbabin's own times (see below). The tinting appears also in connection with the view taken of ancient colony/mother-city relations. Dunbabin (1948: v) summarises the evidence: "Colonial history is threefold: relations with the mother country.... The first is largely a matter of inference from archaeological evidence, for the literary sources record little." Two things are significant here: Dunbabin's clearly implied order of importance in studying colonial history, and the evidential basis, and its interpretation, of colony/mother-city relations. It is obvious that Dunbabin (1948: vii) felt great pride towards his mother country, and having modelled his discussion on modern British colonisation was naturally inclined also to make ancient colony/mother-city relations a priority in the study of colonial history. However, since interpretation of the subject is based on "inference from archaeological evidence", a few

remarks about the archaeology are in order.

Some confirmation of the close colony/mother-city relations Dunbabin postulated could be found in the apparent heavy adoption and reliance of the colonies on the material culture of Old Greece. But archaeological discoveries since then have revealed a more complex situation, throwing into question the validity of Dunbabin's reconstruction. A case in point is Dunbabin's view about there being no colonial pottery production. Any indication of such activity was dismissed (Dunbabin 1948: 259-265), and the strength of Dunbabin's argument rested, ultimately, on negative evidence. Just before and after the publication of Dunbabin's book, evidence of archaic Sicilian pottery production (most notably kilns) came to light (Villard 1964-65: 603), shattering the silence of the negative evidence (see chs. V and X).²⁸ Villard (1992: 4) points out the reason why the data available to Dunbabin were skewed:

De fait, les pièces importées forment souvent l'essentiel des offrandes recueillies dans les tombes ou dans les sanctuaires, ce qui explique que tant de fabriques locales, dans le monde grec colonial, aient pu être si longtemps méconnues ou ravalées au rang de simple production d'appoint: c'est seulement à partir du moment où l'on a véritablement commencé à fouiller les quartiers d'habitation archaïques des villes grecques d'Occident, c'est-à-dire seulement un peu après la dernière guerre mondiale, que l'on a pu véritablement réaliser l'importance quantitative et même qualitative de ces céramiques locales.

The pre-World War II archaeological work, with its very limited interest in settlements (see ch. III below), did much to create a false impression of almost total reliance on imported painted pottery--a false impression which archaeologists strengthened by their single-minded focus on decorated painted pottery. As a recent treatment (Blondé &

²⁸ At one point Dunbabin (1948: 285) himself notes in passing that "There is not enough material to form judgement on the artistic capabilities of the colonials."

Perreault 1992) of pottery production drives home, there were few producers of widely-circulating wares in the Greek world; the choices were limited. That some of these producers were also active in colonisation is perhaps due to their creative spirit than to any other factor. Therefore, it does not necessarily follow that the importation of such wares into colonial regions betokens sentimental attachment to the mother country: it could simply reflect the limited selection, although of course a colony/mother-city affiliation could certainly play some part in determining the wares imported (Boardman 1994). Caution must be exercised before reading too much into mute material remains, of which in Dunbabin's time there was, at any rate, an unsatisfactory archaeological sample available.

Recognition of the differences in material culture continues to grow (see Snodgrass 1994: 8-10; E. Greco 1995). From the beginning there were differences in settlement layout, burial customs, and in a word in the whole new way of life the Greeks established in Sicily. It is no longer legitimate, therefore, to infer close colony/mother-city relations from the material culture: there is a real divide that needs to be reckoned with, and in following any of Dunbabin's interpretations in this respect one runs the serious risk of also following a way of thinking that may have more to do with recent rather than ancient past.²⁹

Dunbabin, having thus cast the terms of his colony/mother-city discussion, created a knock-on effect for his reconstruction of the economy of the western Greeks. What is

²⁹ "It is...still necessary to stress that most Greek colonies were founded to be self-sufficient Greek *poleis*, with enough land to feed their population. Thus the nature of their relations with their mother cities is not normally determined by commercial considerations" (Graham 1983: 5). Note also Finley (1976: 174): "...what is essential is that they were all, from the start, independent city-states, not colonies." Cf. Morel (1984: 124), who regards mother-city/colony relations as a less important subject.

at issue here is not so much that Dunbabin viewed the archaic western Greeks as exclusively the suppliers of raw materials,³⁰ as that he minimised evidence that did not conform to his economic model. Such is the case with the literary evidence (Thuc. vi.2.6) for Phoenician trading-stations all round Sicily before the arrival of the Greeks, which Dunbabin explains away by building up a very questionable argument.³¹ Thapsos, suspected to be the site of one such Phoenician trading-station, is described as "thoroughly" excavated (Dunbabin 1948: 21); the excavations there did not produce a single Phoenician object of archaic date, whereas

The brief occupation by the Megarians before they finally settled at Megara has left its mark in a burial with Protocorinthian vases in a re-used tomb. If this very shortlived settlement (perhaps of only six months) has made a mark, surely a Phoenician settlement or trading-post, however transitory, should have left some casual burial or dropped object. (Dunbabin 1948: 21)

Conclusion: "The absence of archaeological material which might be due to their commerce makes it very difficult to accept this [Thucydidean] statement as it stands" (Dunbabin 1948: 20). Only a page earlier, however, the archaeological confirmation for Lamis' grave, to which, be it noted, a statement in Thucydides (vi.4.1) had attracted the attention of scholars in the first place, had been more cautiously treated: "*Perhaps* this is the grave of Lamis" (Dunbabin 1948: 19; my emphasis). Consequently, this element cannot stand as the final confirmation Dunbabin intended. The core of the argument concerning the archaeology of Thapsos, and more widely about the presence of

³⁰ The discussion below on the environment and economy of Selinous (ch. X) gives weight to Dunbabin's parallel with Canadian wealth from wheat as the source of this *polis*' wealth.

³¹ Here Dunbabin echoes Blakeway's (1932-33: 171 n. 5) negative attitudes to "Phoenician carriers". For the larger context of anti-Phoenician views in modern scholarship, see Bernal (1987: chs. 8 & 9) and Aubet (1993: 170-172).

Phoenicians in the Greek "sphere", must also be abandoned: subsequent discoveries have now thrown into serious question the weight of Dunbabin's negative evidence (see chs. I, V, and VI). Dunbabin's attempt, therefore, to demonstrate, via the example of Thapsos, that the range of Sicilian Greek trade was generally restricted to mainland Greece should be taken with a grain of salt. Greater possibilities need to be admitted (*cf.* Ridgway 1990: 63; Gill 1994: 105-106), and more cautious attitudes adopted towards trade networks, and the various stages and players behind them (Will 1973: 33-34; Morel 1983a: 565-568; Graham 1984; Gras 1995: 111-112; C.J. Smith 1996: 73-74).

Although Dunbabin's declaration of the modern British colonising parallel would in itself have been almost sufficient, it is clear from the additional evidence adduced that the interpretation of the Sicilian Greeks is completely moulded by what is today classified as imperialist archaeology. Trigger (1984a: 363) defines this variety of archaeology as "...associated with a small number of states that enjoy or have exerted political dominance over large areas of the world. As one aspect of this hegemony, such nations exert powerful cultural, as well as political and economic, influence over their neighbours." Similarly Dunbabin saw the archaic Sicilian Greeks as being on the receiving end of an imperial ancient Greece. Imperialist archaeology first came into being in the United Kingdom in the second half of the nineteenth century (Trigger 1984a: 363-365), and was well entrenched in the academic mind-set of the 1930s to which Dunbabin belonged.

To conclude, the aim of the preceding discussion has not been to take up Dunbabin on every debatable point raised by his great book. Rather, the purpose has been to show the misleading and restrictive nature of the model which guided Dunbabin's historical reconstruction, as well as his actions in dealing with unconforming evidence. The model is misleading because the only thing that archaic Greek and modern British

colonisation have in common is the English word "colonisation." Otherwise these two phenomena must be kept separate.³² Dunbabin stood faithfully by the model he adopted. This had the grave consequence of severely limiting the possible ways of looking at the archaeological evidence, and as a result conclusions came to be drawn from negative and/or suppressed evidence.³³ The latter practices, from such a hallowed book, might come as something of a surprise, but several book reviews, now long forgotten, criticised this very issue as well.³⁴ Ideally speaking, a model should be tied in to as much ancient evidence as possible to see how it might look if it were fuller (see ch. III for more general discussion concerned with demographic models), not when the evidence is so scanty that any model could be as easily inserted as another. Dunbabin's minimisation of ancient evidence for the sake of fitting some model, especially one applicable only to modern conditions, was a step in the wrong direction, and the sorts of relationships Dunbabin saw between natives and Sicilian Greeks, and between Sicilian Greeks and the Greek mainland, need to be looked at with caution, and even outright scepticism.

To rectify the problems just discussed, we must, as Boardman suggested, make ample allowances for the quality and quantity of the archaeological data, and treat the data

³² On two specific occasions the recourse Dunbabin had to modern situations is very useful: the story of Melbourne's foundation to explain divergent ancient foundation-dates (Dunbabin 1948: 450; cited approvingly by Di Vita 1990: 345-346), and the demography of early Sydney to illuminate the past (Dunbabin 1948: 453-455).

³³ For the suppression of evidence, note Said (1993: xiii): "The power to narrate, or to block other narratives from forming and emerging, is very important to culture and imperialism, and constitutes one of the main connections between them."

³⁴ Charanis (1949: 568-569); R.M. Cook (1949); White (1949: 46); Villard (1953: 11). Davies (1949) is very critical of Dunbabin's handling of literary evidence. References to all other reviews are collected in *BTCGI* i.168.

on their own terms, rather than letting a typology or model direct the discussion.³⁵ That such principles have not been heeded in the past, especially in a work so wide-ranging as Dunbabin's, has a bearing on the present that today needs to be taken into account. Although the gradual accumulation of archaeological data has exercised a growing constraint on interpretation (a recurring point in Trigger 1989), the problems of past scholarship can linger on in two ways: first, the collection of archaeological data and the methods used to retrieve them are strongly determined by what archaeologists deem significant; second, scholars habitually build on the conclusions of their predecessors, and not always on the evidence on which these conclusions were originally based (Trigger 1989: 15-16). This is a particular problem when historians are disinclined to go back to the original archaeological data, and rely on archaeologists' conclusions, and when archaeologists similarly rely on what historians conclude from texts. Such factors, either singly or in combination, run the serious risk of continuing, even in the subtlest of ways, problems evident in past scholarship (*cf.* Said 1993: 249). Dunbabin's (1948) account of the Greeks in the west has probably reinforced certain archaeological preferences and has

³⁵ Though I would disagree with any ideas of "allowing the data to speak for themselves" that might be associated with Boardman's viewpoint: all reporting of archaeological data involves a framework and implies an interpretation. A recent example of letting a modern model direct interpretation is Shepherd (1995: 71-72), who uses a parallel from the American Revolution to explain south-east Sicilian differences in burial customs as due to the conscious creation of political identity and competition: the exact opposite of Dunbabin's imperialist archaeology. Shepherd (1995: 73) exhibits Dunbabin's habit of dismissing ancient evidence (here the *Lindian Chronicle*) to conform to a modern model. The differences in burial customs noted by Shepherd are indeed real enough, but the central problem is whether differences, or even similiarities, in material culture should be related to politics. For example, Cornell (1995: 159-165), drawing inspiration also from Said's (1993) fundamental study, has recently argued against attaching political significance to early Rome's indebtedness to Etruscan material culture.

certainly been used as the foundation for further interpretative work.³⁶

Excursus: colonialism and the polis

The foregoing discussion of the influence of modern colonial mind-set on classical Greek scholarship raises a more general point of relevance: that the derivative indebtedness characteristic of recent colonialism has played a rôle in shaping opinions about the ancient Greek "colonial" *polis*. This seems an altogether reasonable proposition to entertain, to judge from the development of the subject. For one thing, it is probably no coincidence that scholars have unjustifiably assumed that the *polis* had more or less developed before the foundation of the "colonies".³⁷ For another, general studies on the *polis* have paid very little or no attention to the "colonies", focusing instead on Aegean Greece, which by implication may be regarded as central.³⁸ The unimportance of the

³⁶ Shepherd (1993: 5) is a perfect recent example of repeating one of Dunbabin's outdated conclusions: she claims that there seems to have been no fineware pottery production in Greek Italy! Vallet (1962a) built on Dunbabin's (1948: 121) belief that Khalkidian expansion was "peaceful" as opposed to the more violent nature of Syracuse's. This only served to entrench the idea in the scholarly literature for years before Procelli's (1989) article conclusively shattered the myth. It is also interesting to note that, while Boardman (1980: 10), on the one hand, has cautioned against the pitfalls of models in archaeological interpretation, on the other, remnants of the pro-Hellenic model can still be found in that same work: for instance, note his attitudes regarding the Sikels and Etruscans (Boardman 1980: 190, 200) (for Boardman's Etruscan viewpoint, see Spivey & Stoddart [1990: 93-94]). Old views can linger on, even in the reconstructions of scholars who have themselves disproved them (Trigger 1989: 18-19).

³⁷ For the rôle of colonisation in state formation, see Snodgrass (1977: 13; 1986: 9), Malkin (1987: 12; 1994a), and Hansen (1994: 15).

³⁸ "For the colonies there is no comprehensive study at all" (Hansen 1994: 14). The recent works listed by Murray (1990: 24-25) generally have little to say of the colonial *polis*. To this list add the following studies left out by Murray or subsequently published: Ruschenbusch (1978: ch. 1 [revised in 1985], 1983, 1984), Van Effenterre (1984), Gehrke (1986), Sakellariou (1989), Molho et al. (1991), and Rich and Wallace-Hadrill (1991). There are some exceptions: Welskopf (1974), in the programme of the Copenhagen Polis Centre (Hansen & Whitehead 1994), and now Osborne (1996b). Note also Coldstream (1984: 9): "The quest for the emergent *polis*.... What is needed is a vast store of evidence amassed over many years of archaeological research, to give us a balanced picture of progress throughout the entire Greek world during the period in question."

"colonial" *polis* implied by such a Greece-centric view may be more apparent than real,³⁹ yet the omission is genuine and gives the wrong impression. The "colonial" dimension awaits its place in the study of the *polis*.

The end of colonialism represents the closing of a chapter in history. Today, *post factum*, we can recognise more easily the influences, often subconscious, that shaped scholarship of that period, whereas present factors are considerably more difficult to detect (*cf.* Trigger 1989: 26).⁴⁰ Inevitably, subjective attitudes will continue, despite recent advances in archaeological theory (*cf.* Trigger 1989: 380), to influence the way scholars approach and interpret evidence (like Dunbabin, we are all products of our time), but the effects of this can be lessened somewhat by "... a deeper awareness of why archaeologists [scholars generally it could be said] ask the questions and seek the kinds of knowledge that they do" (Trigger 1984a: 368-369). Awareness of the context in which we work must be an integral part of any approach, if we are to avoid repeating the mistakes of past generations. "By developing greater historical awareness about our own practices, we can come to terms with their limits and can identify ways to capitalize on their strengths. Changes in theoretical positions often lead to changes in our sense of the evidence itself" (Morris 1993: 37).

Papadopoulos (1993: 196) suggests much the same.

³⁹ For instance, it could partly, or wholly, be due to scholars' unfamiliarity with a large and highly specialised body of modern literature, sometimes difficult to obtain and sometimes even written in uncommon scholarly languages (the latter are not obstacles for Italy). At any rate, the raw and worked data do exist.

⁴⁰ See generally Ashcroft *et al.* (1995). Hellenistic scholars have also recognised the colonialist attitudes of earlier work (Alcock 1994: 171, 173-174).

The Project of Research

Sicilian archaeology has come a long way since its inception over a century ago. Dunbabin's (1948) work, standing at roughly the mid-point of the discipline's history, may serve to illustrate the magnitude of the changes. At the time, Dunbabin could reasonably study the archaeology and history of *both* south Italy and Sicily in a comprehensive manner. The result was a big book, whose evidence, it must be remembered, was essentially that available up to the outbreak of World War II (*cf.* Dunbabin 1948: viii-ix). In today's terms a work of comparable scope would be an immense undertaking, only possible, even for Sicily and south Italy separately, in a multi-authored, multi-volume format, or at the very least published between the covers of a very large book.⁴¹

Archaeological investigations have witnessed a rapid growth, quantitatively and qualitatively, since the end of World War II.⁴² In Sicily, because of administrative reorganisation, which has made more money and manpower available, these activities have increased in the last twenty years (Wilson 1982: 84; 1988: 105). Since Frederiksen's (1976-77) survey, south Italy and Sicily have had to be reviewed separately in *Archaeological Reports*; this division is symptomatic of the numerous archaeological investigations conducted on the island. So much archaeological evidence is available--and there would be considerably more if all unearthed material were published--that selectivity is needed to avoid producing pseudo-archaeological history (to extend Finley's [1981: 19-20; 1985a: 61-66] concept of pseudo-history); instead particular questions need to be

⁴¹ *Cf.* for Sicily Gabba & Vallet (1980) and Pugliese Carratelli (1985); for south Italy: Pugliese Carratelli (1985-90) and Pugliese Carratelli (1983).

⁴² See reviews by Trendall (1956), (1961), (1964), (1967), (1970), (1973); Frederiksen (1976-77); and Wilson (1982), (1988), (forthcoming).

asked of the evidence.

For answering questions about the evolution of Greek settlement in Sicily Megara Hyblaia and Selinous have two particular advantages. First, the archaeological data-base of both sites is ample enough for profitable investigation, not least since they offer very good possibilities for exploration.⁴³ Second, Megara Hyblaia and Selinous are diverse in location in space and in foundation in time.

Megara Hyblaia has been excavated intermittently for over a century (*BTCGI* ix.516-520).⁴⁴ The earliest "official" excavations, small-scale in nature, were conducted in 1879 in the site's cemeteries, in response to the illegal plunderings (see Cébeillac-Gervasoni 1975: 4). This work continued now and again for a decade. Orsi's arrival at Syracuse in 1888 marks the real beginning of excavation at Megara Hyblaia.⁴⁵ Research was conducted in both the cemeteries and settlement; most of the results obtained were published in a monograph (Orsi & Cavallari 1890). Orsi returned to Megara Hyblaia in 1917, when some classical monuments and a Neolithic village were brought to light (Orsi 1921). Except for chance finds,⁴⁶ there was no further archaeological activity until the start, in 1949, of the longest-running excavations of the French School at Rome, which have continued, albeit at a reduced pace, till very recently. The settlement has been the

⁴³ Neither site has been inhabited notably since antiquity. Compare the limited possibilities such sites as Catania, Messina, and Syracuse offer. For Megara Hyblaia and Selinous since antiquity, see Vallet and Voza (1984: 64-67) on the first site, and for the second see Hulot and Fougères (1910: 130-144), Naselli (1972), and Traselli (1972).

⁴⁴ Virtually all the major modern literature, up to 1990, on Megara Hyblaia is conveniently collected in *BTCGI* ix.520-534.

⁴⁵ "Fu questo il vero punto di partenza delle ricerche a M.[egara]" (*BTCGI* ix.519).

⁴⁶ An archaic *kouros* in a landslip near the sea (Bernabò Brea & Pugliese Carratelli 1946-48) and an isolated cluster of ten tombs near the Megara Giannalena train station (Agnello 1949).

main focus of these French excavations. At first, efforts were concentrated on various sectors of the ancient city, to probe as widely as possible (Villard 1951; Villard & Vallet 1952; 1953; 1954). As this work progressed, the establishment of heavy industry in the immediate environs of Megara Hyblaia made it necessary to carry out rescue excavations. Conducted by the Sicilian authorities, these emergency explorations managed to salvage material from mainly funerary contexts (Gentili 1951; 1954a-c; 1956; Barreca 1956). Towards the end of the 1950s the French began to focus on the part of the settlement for which they have achieved renown. These excavations, published in exemplary form (*MH* i and ii), have uncovered a rich sequence for virtually the whole of the archaic period. This settlement evidence contains a crucial, though all too often neglected dimension: a large number of houses, which provide valuable insights into everyday life. The smaller hellenistic city that was built on these earlier remains also received considerable attention (Vallet & Villard 1958a). Other less extensive work has subsequently been carried out in the settlement (Gras 1984-85) and cemeteries (Cébeillac-Gervasoni 1975; 1976-77; Gras 1975), though much of the material uncovered remains to be properly published.⁴⁷ The last decade or so has seen the publication of a useful guide (*MH* iii) and a little further excavation occasioned by the expansion of industry and chance discoveries (Vallet 1988; 1992; 1993).

The larger regional context of Megara Hyblaia is also quite well known, through excavation and topographic exploration. In Sicily, generally speaking, there has been considerable attention paid to particular individual settlements and to the structures within them; by contrast the systematic study of settlement distributions has lagged behind (as

⁴⁷ Gras (1986: 9) has announced that these excavations are to appear as the fifth volume of the final publication.

noted by Wilson 1985: 313).⁴⁸ Nevertheless the Superintendency based at Syracuse has always been directed by active archaeologists with wide interests. Orsi, Bernabò Brea, Pelagatti, and Voza have all in their turn made notable gains in uncovering south-east Sicily's rich archaeological heritage, which Vallet and Voza (1984) have summarised in a brief account.

At Selinous the bulk of nineteenth-century archaeological interest was on monumental architecture (Angell *et al.* 1826; Hittorff & Zanth 1870; Benndorf 1873; Koldewey & Puchstein 1899) and on topography (Schubring 1865).⁴⁹ Some attention was also paid to Selinous' cemeteries (Cavallari 1872). Early in this century Selinous received its only, and still fundamental, synthesis with the publication of Hulot and Fougères (1910). For its time this is an impressive work which succeeded in placing Selinous in its wider geographical, historical, and archaeological setting. In the period between the two World Wars, Gabrici initiated research on the city's urban topography, particularly the acropolis (Gabrici 1923; 1929), while publishing important monographs on the Malophoros sanctuary (Gabrici 1927) and on architecture (Gabrici 1933; 1956). There was also more work in the cemeteries (Gabrici 1942). Bovio Marconi continued in Gabrici's footsteps, excavating a previously unknown temple (Bovio Marconi 1954; 1958a; 1960) and adding further details to Selinous' urban topography (Bovio Marconi

⁴⁸ Dyson (1982: 93) emphasises the great potential for field survey in Sicily. In addition to the field surveys mentioned below, there has been important work by the Italians at Himera: Alliata *et al.* (1988); Belvedere (1988-89). For a review of the (few) topographic surveys conducted in Sicily, see Dyson (1982: 93) and Wilson (1985: 313).

⁴⁹ The valuable *BTCGI* series has not yet reached as far as Selinous. For an overview of the pre-1970s bibliography, see Bovio Marconi (1966), Schmiedt (1970: s.v., Selinunte), and V. Tusa (1973; 1976). Useful summaries of work carried out at the site since the 1950s can be consulted in Trendall (1956: 54; 1961: 44-45; 1964: 39; 1967: 40; 1973: 43), Frederiksen (1976-77: 73-74), and Wilson (1982: 101-102; 1988: 144-148).

1958b; 1961). She also undertook restoration of Temple E (Bovio Marconi 1967). The last thirty years of archaeological activity at the site have been under the direction of V. Tusa. Much of the first decade of this period was focused on Selinous' cemeteries, which had experienced extensive illegal plundering. Over 5,000 tombs were explored (V. Tusa 1971c), though they remain largely unpublished (see Giammellaro Spanò & Spatafora 1982). Further excavations in the settlement took place as well (Di Vita 1967; V. Tusa 1972-73: 407, 409), producing two new metopes (V. Tusa 1968-69: 444-449). Punic Selinous received serious consideration for the first time (V. Tusa 1971a). The year 1972 marks a new era in archaeological studies on Selinous. In that year V. Tusa assembled several research teams at Selinous and charged each with examining a different aspect of the ancient city. From the start the intention was to create five teams, but only four of these materialised at first, with the fifth added less than a decade later.⁵⁰ These investigations continue to the present day. Alongside these five teams smaller projects have been carried out on Selinous' quarries (various scholars in V. Tusa 1983; Peschlow-Bindokat 1990), and other work on underwater archaeology and geophysics is under way (Brizzolari *et al.* 1994). The site now falls under the supervision of R. Camerata Scovazzo, the official in the Trapani-Palermo Superintendency responsible for archaeology.

⁵⁰ For the first four teams, see V. Tusa (1976-77: 660-665); for the fifth, see V. Tusa (1984-85: 570-572). Details of all the teams are as follows: a French team (subdivided into various further teams) directed by Martin was assigned the acropolis; a German team under Mertens was to elucidate the history of the fortifications. The three remaining teams were charged to Italian archaeologists. Rallo's Italian team was to investigate the settlement of the Manuzza hill; Gullini was to explore the history of temple architecture, focusing above all on temple E on the Marinella hill; and finally, in 1980, Sebastiano Tusa (son of Vincenzo Tusa) was made director of the "Missione Malophoros", whose area of concern was to be the sub-urban sanctuaries on the Gaggera hill.

Knowledge of Selinous' position in larger regional terms has increased steadily in the last two decades. The great majority of all of this information derives from excavation and topographic investigations, with the remainder made up of field surveys in the hinterland of Herakleia Minoa (Wilson & Leonard 1980; Wilson 1980-81; Wilson 1981), in the Upper Belice Valley (Johns 1985; 1988; 1992), around a Roman villa north of Mazara del Vallo (Fentress *et al.* 1986), and at Entella (Canzanella 1993).⁵¹ A picture is beginning to emerge of Selinous' territory, and of some of the contacts maintained with the lands beyond (see ch. X below). Under V. Tusa the study of the Phoenician and native cultures of western Sicily has rightly been given considerable impetus; there has been research at both previously known and new sites (see ch. VI below).

The second advantage in choosing Megara Hyblaia and Selinous is that both sites were Megarian, but founded a century apart on different sides of Sicily. The eastern and western parts of the island are not at all alike because of their different environmental and socio-political contacts and contexts. Megara Hyblaia and Selinous offer unique opportunities for looking at the development of Greek settlement in different conditions, both temporal and spatial, and for attempting to explain the divergent evolution that resulted. Research on both sites and their regional settings has not produced a strictly comparable data-base, because the archaeology has been "authored" in different ways.⁵² The differences are clear just from the *polis* centres alone. At Megara Hyblaia the

⁵¹ Marazzi and Tusa (1987) have outlined on paper a field survey project for part of Selinous' territory. Apparently an Italian-led survey organised by Siena University is presently under way at Selinous (R.J.A. Wilson, pers. comm.).

⁵² For such "authoring" in archaeology, see Dyson (1995: 35-37), who argues that the selection of certain types of monuments and chronological periods for excavation and publication creates a sort of text with its own form and meaning. "No archaeologist can be a simple reader, for the text does not really exist until he or she begins field research" (Dyson 1995: 36-37).

archaeology represents a reasonable socio-economic range, whereas at Selinous, at least while the cemetery and settlement material is inadequately published, it favours the élite. Other variants will be noted in the course of this study.

Chronologically, this study is limited to the archaic period. For Megara Hyblaia the end of the archaic period marks a natural break. Selinous still had about seventy years of life left when the archaic period ended, but I end my study at this point because Selinous had already evolved along very different lines. The study is divided into two parts (one for each site), each of which consists of five chapters, in order to give a single continuous narrative of their evolution. The chapters tackle the same sorts of questions, for "comparative" purposes. The order of the chapters has been devised with Dunbabin's own arrangement in mind (in so far as our topics overlap), but the result of this, as will be seen shortly, has generally been the amalgamation into a single chapter of topics that Dunbabin treated separately, or in one case the dispersal of the subject matter of one of Dunbabin's chapters into several of my own.

Chapters I and VI provide the broader archaeological and historical setting of each site, beginning with the nature of the native world encountered by the Greeks when they founded their colonies. For Selinous there is also a section in chapter VI on the Phoenicians in western Sicily. My chapters I and VI contain the sort of material discussed in Dunbabin's chapters I, X and XI.

Detailed analyses of the settlement evidence from the *polis* centre are contained in chapters II and VII. The settlement data are usually treated in quarter-century and half-century blocks. My aim is to trace the physical evolution of the settlement, its size and

development, and the use of space.⁵³ Settlements mirror wider conditions,⁵⁴ and these chapters, though their focus is considerably more reduced than Dunbabin's (1948: ch. ii) similarly placed one, lay the substratum for subsequent discussions.

Demography, particularly population size, is the subject of chapters III and VIII. Chapter III also contains some additional methodological considerations, which provide the framework for the population estimates. These chapters appear at this point in the overall design of the study for two reasons. The first is that the techniques used to calculate population size are based on settlement data. Second, the demography furnishes valuable indications for matters raised in succeeding chapters. Chapter III and VIII tackle issues Dunbabin touched upon or discussed in his chapters II and III and Appendix 1.

Chapters IV and IX are concerned with society and politics. The aim is to piece together in chronological sequence, using the available archaeological and historical evidence, a picture of the internal and external socio-political history of each of the *poleis*. The socio-political implications of temple-building at Selinous are dealt with in a separate section of chapter IX. These chapters deal with matters Dunbabin examined in several chapters (II, III, V, XI, and XIV).

Chapters V and X, consolidating questions Dunbabin (1948: chs. vii, viii, ix) discussed in various chapters, look at environmental circumstances and the economy. The present chapters focus on the definition of territory, the natural environment, the economic system, and extra-territorial exchange.

⁵³ This sort of information is even lacking for early modern Europe: de Vries (1984: 3,10,17).

⁵⁴ "...the development of the *polis* is also a process of urbanisation, which can be traced in the physical remains" (Murray 1993: 63). Cf. also Hansen and Fischer-Hansen (1994); S.G. Miller (1995).

In the final chapter the conclusions reached are first recapitulated. Thereafter, an attempt is made to explain Selinous' divergent fortunes. The project ends with brief consideration of Megara Hyblaia and Selinous' contribution to the study of the Greek *polis*. It will be seen that, although archaic Sicily has no real history, it has a full archaeological history, and the questions addressed in this work,⁵⁵ and numerous others to which archaeological history provides the solution, will point the way for future studies of archaic Sicily.

⁵⁵ Coincidentally, these are the sorts of matters Finley (1981: 19-20, 22; 1985a: 61-66), in criticising pseudo-history, explicitly and implicitly singled out as important in the study of ancient cities.

PART I
MEGARA HYBLAIA

CHAPTER I:
THE SETTING

Introduction

"Mais l'histoire de ces siècles [sc. leading up to Greek colonisation] ne peut se réduire à celle de l'Attente des colons grecs ... Si la colonisation n'est pas un champignon, l'Occident n'est pas non plus une forêt vierge ..." (Gras 1986: 8).

In establishing the setting for the foundation of Greek colonies, Hellenocentrism is not permissible, for Greek colonisation took place in foreign lands. The quotation above embodies new attitudes which take full account of the socio-political realities that existed in areas that were also settled by Greeks. To view this situation from the Greek perspective alone is to over-simplify and misrepresent the ancient picture. Instead, the various archaeological and historical layers need to be superimposed, with the native world preceding the foundation of the Greek colonies given first priority. Only thus will we begin to appreciate the complexity of Greek colonisation.

The Native World of Eastern Sicily

Thapsos and the Thapsos Culture

In the 1950s Bernabò Brea (1953-54: 182-187; 1957: 129) could state that the most important site in eastern Sicily in the Middle Bronze Age was located on the Thapsos peninsula (14-15 hectares in size) (fig. I.1). Thapsos' importance was great enough to make it the type site of an archaeological culture, a view based on the three hundred chamber tombs and their contents excavated by Orsi (1895a) in the north-west corner of the peninsula. In the 1970s archaeological activity resumed at Thapsos in the face of industrial expansion, which threatened to destroy the ancient settlement certainly in the vicinity of these tombs (Vallet & Voza 1984: 46-49). Given the difficult conditions of excavation--only 20-40 cm. of soil covered the remains--what was found was nothing

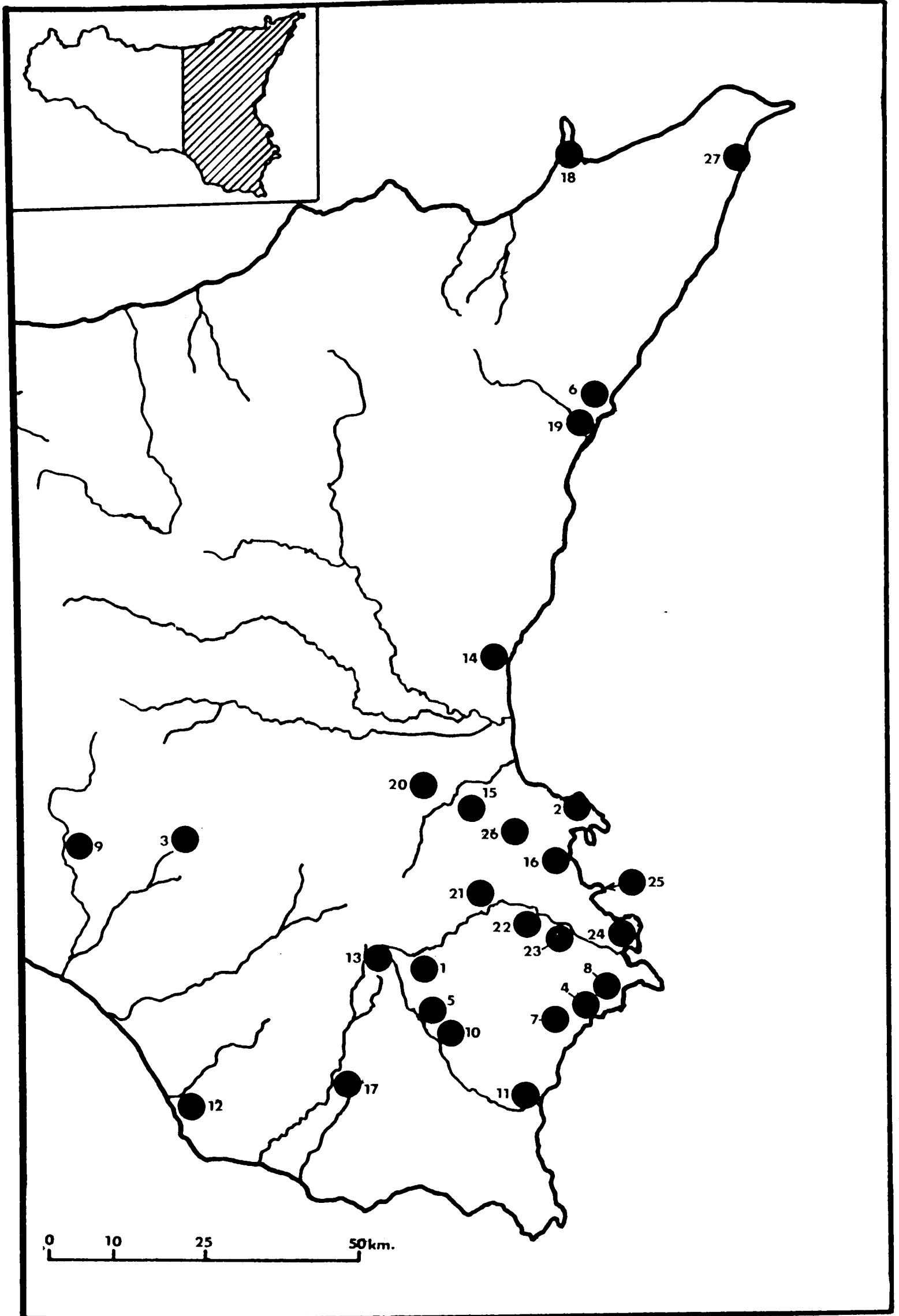


Fig. I.1. Eastern Sicily, showing major sites mentioned in the text.

- | | | |
|--------------------------|--------------------|-----------------|
| 1. Akrai | 10. Finocchito | 19. Naxos |
| 2. Brucoli | 11. Heloros | 20. Ossini |
| 3. Caltagirone | 12. Kamarina | 21. Pantalica |
| 4. Cassibile | 13. Kasmenai | 22. Rivettazzo |
| 5. Castelluccio | 14. Katane | 23. Solarino |
| 6. Cocolonazzo di Mola | 15. Leontinoi | 24. Syracuse |
| 7. contrada Ronchetto | 16. Megara Hyblaia | 25. Thapsos |
| 8. contrada Serrapalazzo | 17. Modica | 26. Villasmundo |
| 9. Dessueri | 18. Mylai | 27. Zankle |

short of amazing.

These more recent excavations have revealed three phases of life spread over four centuries.¹ Thapsos I, dating to the fifteenth/fourteenth centuries, consists of (mostly circular) huts, randomly distributed across the settlement (Voza 1976-77: 562-565; 1984-85: 666-667) (fig. I.2). In diameter the huts measure between 5 and 7 m.; their walls are built of two rows of quadrangular blocks. Hearths were discovered in the interior of some of these huts, whose roofs were supported by posts. Pottery recovered from the huts includes the characteristic grey monochrome Thapsos ware, with incised linear decoration, and some imports from Malta.

Thapsos II, encompassing the thirteenth and twelfth centuries, continues in the same cultural tradition. Rectangular structures were built, sometime in the thirteenth century, alongside the huts of the first phase.² Traces of these structures were detected at various points in the settlement, but two multi-roomed complexes (labelled A and B by the excavator), covering some 600 m.² in the central part of the settlement, were in better condition for profitable investigation (fig. I.2) (Voza 1973a: 136-141). Rooms vary between 7.5 and 10 m. in width, and measure up to 20 m. in length. The structures were constructed around paved courts. The remains of pithoi and other pottery were found in these structures. In complex A's court a well was discovered. Travel between these complexes was by means of paved streets, one surviving to a width of 3 m. A rectilinear

¹ Fortifications have been found on Thapsos, but as yet they cannot be dated precisely to phases of the settlement.

² The initial appearance of these rectangular complexes have not been dated more precisely owing to the scarcity of imported pottery. Twenty Mycenaean sherds are reported to have been found in the settlement (Wilson 1988: 113; La Rosa 1989: 8; Holloway 1991: 180 n. 23, all relying on information made public by the excavator, who has yet to publish them), but their relation to these structures is still uncertain.

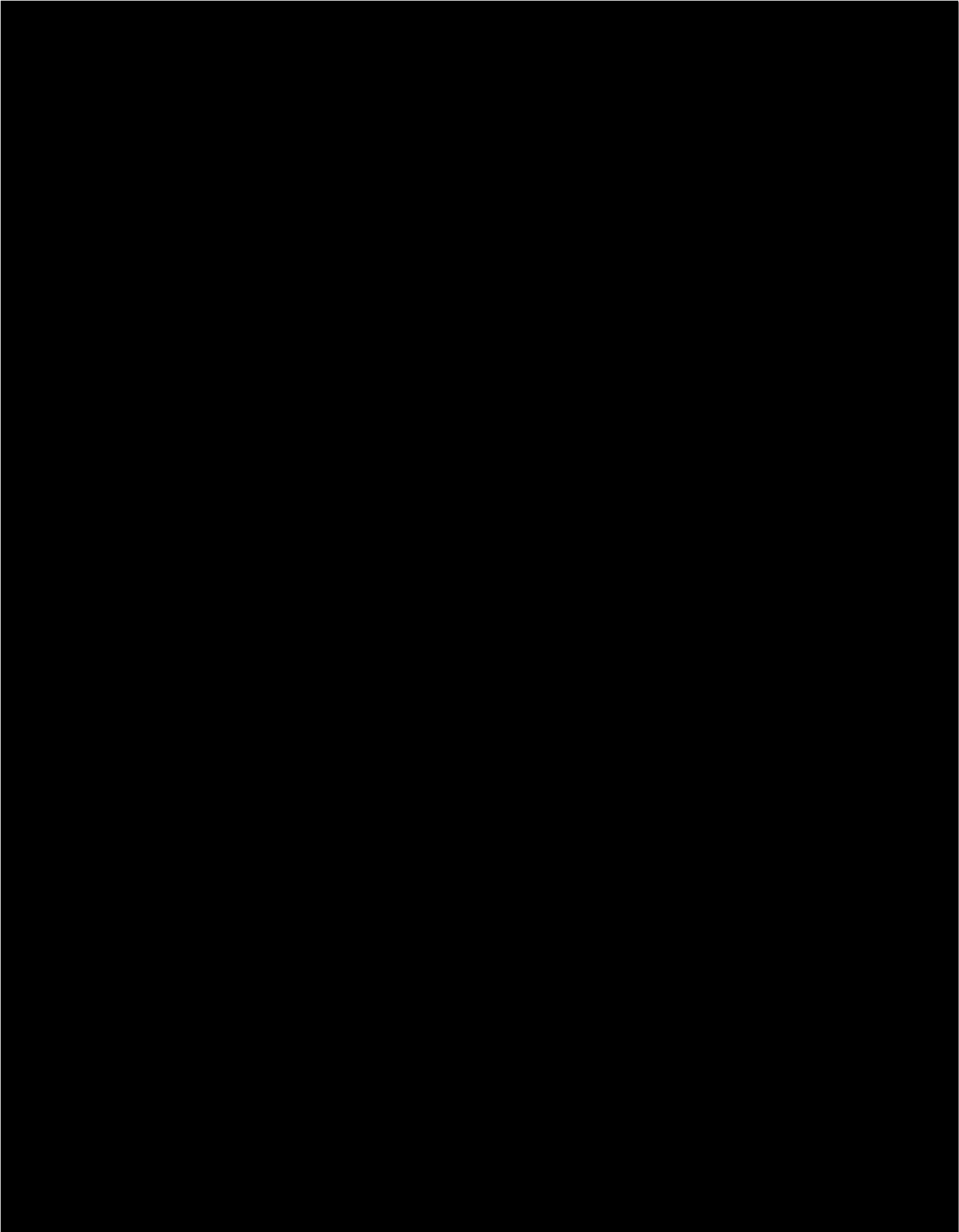


Fig. I.2. Plan of Thapsos excavations (after Voza 1973: tav. I).

street system has been postulated on the basis of these streets, with the description proto-urban applied to the settlement as a whole.³ As the rectangular complexes of Thapsos II are unparalleled elsewhere in Sicily at this date, they are regarded as imported (Voza 1973a: 140). Voza (1972: 186-187) and S. Tusa (1992: 477, 498) believe the closest parallel is to be found on the acropolis of Gla in Boiotia, whereas Holloway (1991: 34) sees parallels with Enkomi (Cyprus). On the basis of imported items contained in the tombs (*e.g.*, Mycenaean, Cypriot, and Maltese pottery as well as amber and metal objects) and the overall character of the settlement, Thapsos II has been called an emporium. There are two additional reasons for this label. First, the distribution of the Thapsos culture shows that most sites were located on or near the coast, demonstrating the maritime penchant of the culture (S. Tusa 1992: 481-508). Second, natural conditions at Thapsos itself provided good anchorage.

Thapsos III belongs to the tenth and ninth centuries. New huts of quadrangular shape were constructed; according to the excavator, they are quite distinguishable, both stratigraphically and architecturally, from the structures of the preceding phase. The huts vary in size (usually between 7 and 10 m. in length). For Voza (1984-85: 666) Thapsos III represents a radical overhaul of what went before. Besides Sicilian material culture, Maltese pottery of the Borg in-Nadur and Barija cultures was found in association with these huts (Voza 1976-77: 566-567). Again, the architecture is unparalleled elsewhere in Sicily. Coarelli and Torelli (1984: 305-306), on this and other grounds,⁴ have postulated

³ Voza (1973a: 140); La Rosa (1989: 7); Bernabò Brea (1990: 22); Holloway (1991: 36); S. Tusa (1992: 475).

⁴ First, Thapsos is a Semitic word meaning "crossing" or "ford" (*cf.* Fantar 1993-94: 219-220; Lancel 1995: 7, 293). Second, some *enchytrismos* tombs were discovered at Thapsos (Voza 1972: 200-204). This form of burial is regarded by Coarelli and Torelli as unusual for the Thapsos culture (for the possibility of native innovation, see,

Phoenicians at Thapsos III, while Bernabò Brea (1990: 58-63) sees native occupants trading with the Phoenicians. Whatever the case, it is clear that these waters were not quiet in the century leading up to the foundation of the Greek colonies (for a full account of the Phoenicians in Sicily, see ch. VI).

Little is known about how the emporium of Thapsos operated. La Rosa (1989: 9) and Malone *et al.* (1994: 180), though on different grounds, single out agricultural products as the commodity sought by the foreign traders. La Rosa finds support in the "*grossi contenitori di derrate nelle strutture abitative...*", whereas Malone *et al.* think the Thapsian settlement pattern--of sites located at the edges of alluvial plains and rivers to exploit natural circumstances--indicates agricultural intensification. For La Rosa (1989: 9-10) the rich tombs of Thapsos belong to a native élite controlling this trade, who in return were given luxury goods and metals (*cf.* Malone *et al.* 1994: 190-191).⁵ La Rosa (1989: 10) also believes that Thapsos was not a redistribution centre, since very few of these imported goods are found in the hinterland. These suggestions provide an outline, which will require further research to be validated and expanded.

Thapsos is so far the most impressive site of its namesake culture, though by no means the only evidence known. The distribution of the culture is largely restricted to the south-east (S. Tusa 1992: 468-470), perhaps due to bias in research (Bernabò Brea 1957: 20; La Rosa 1989: 7; S. Tusa 1992: 471). Thapsian pottery has been found as far west in Sicily as Trapani, where its appearance is thought to be owed to some form of

however, S. Tusa 1992: 480-481).

⁵ Battaglia and Alliata (1991: 26) estimate the population of Thapsos at 905-1,014 (with reference to no particular phase of the settlement). This estimate is based on the size of the peninsula multiplied by borrowed population densities. Consequently, it is at best useful only as a first indication.

exchange. There is very little settlement evidence at present; most information derives from tombs (S. Tusa 1992: 471).

Pantalica and the Pantalica Culture

The new data from Thapsos have raised doubts about one major aspect of the Pantalica culture, namely, its origins.⁶ The traditional view, first advocated by Bernabò Brea (1957: 149), holds that the Pantalica culture evolved directly from the Thapsos culture. For Bernabò Brea eastern Sicily of the Late Bronze Age, following the pattern discernible in the eastern Mediterranean, also witnessed its own dark ages; thus coastal sites, like Thapsos, were abandoned in favour of defensible, hilltop positions in the interior. It has subsequently been revealed, however, that life continued at Thapsos (phase III) during the Late Bronze Age. In light of these new discoveries, Bernabò Brea (1990: 55-57) has refined his original theory: the Pantalica culture occupied both coast and interior.⁷ S. Tusa (1992: 567, 569, 587, 624), on the other hand, prefers to distinguish two cultural traditions in eastern Sicily at this time: the Thapsos culture on the coast, and the Pantalica culture inland. No solution is forthcoming, and the only feasible course at the moment is to leave Tusa's objections to the test of time.

The Pantalica cultural sequence is mostly attested in the south-east (S. Tusa 1992: 548-550), again probably owing to biases in field-work. The culture, deriving its name from the spectacular site of Pantalica (*BTCGI* xiii.343-362), lasted for about six hundred

⁶ The mention of Thapsos III in the preceding section has taken the discussion further down in time beyond, in fact, the initial appearance of the Pantalica culture. Such a decision has been brought about by the need to present the Thapsos culture altogether, as well as by other reasons, which will presently become apparent.

⁷ Holloway (1991: 36-37) ignores Thapsos III; the traditional view of natural progression from one culture to another is accepted (for a more detailed statement of which, see Holloway 1985). This is very odd in view of an earlier statement by Holloway (1984a: 265): "The interpretation of the Pantalica period is changing."

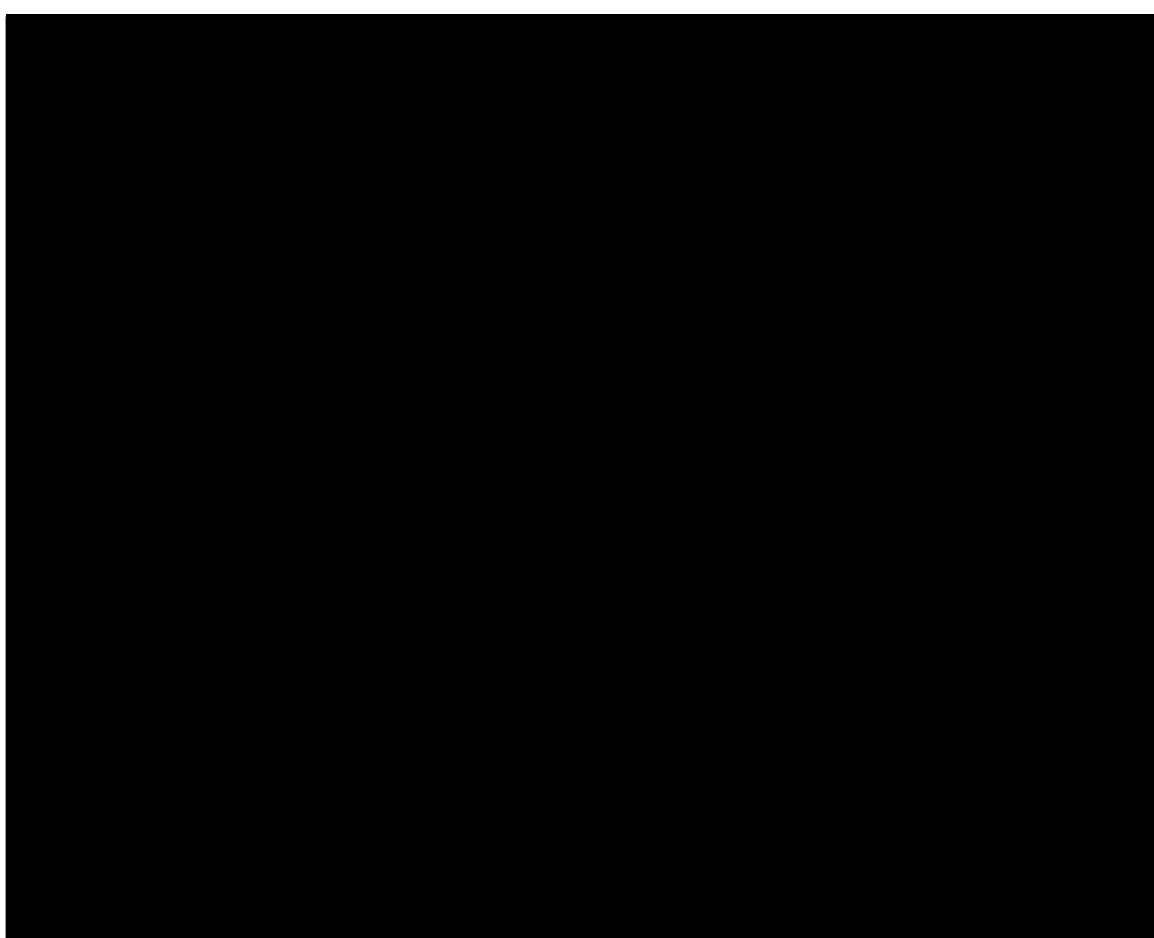


Fig. I.3. Pantalica: site plan (after James *et al.* 1991: 38, fig. 2.5).

years (1250-650 BC).⁸ The type site is located around a rugged gorge and its plateau (pl. 1) (maximum height: 424 m. asl), clearly selected for its defensive qualities (fig. I.3). Very little of the settlement has been excavated, but it is obviously quite extensive.⁹ The only settlement evidence is a large edifice excavated by Orsi (1899: 75-85), labelled, by analogy with Mycenaean culture, an *anaktoron*. Bernabò Brea's (1990) excavations have added further details to Orsi's investigations. The *anaktoron* measures 37.5 m. long by 14.2 m. (west side) and 11.6 m. (east side) (fig. I.4; pl. 2), built in Cyclopean masonry 1.6 m. high by 2.23 m. long. The building consists of at least seven rooms (designated as A, C, D-H) and one corridor (B), with possibly two other minor rooms (I-L) (which Orsi missed). Room A seems to have been added slightly later (Bernabò Brea 1990: 73, 75). Research around the *anaktoron* also brought to light stretches of terrace/fortification walls as well as a trapezoidal tower, measuring 6.12 m. by 6.55 m. (Bernabò Brea 1990: 81, 85, 87, 89) (pl. 3). There is clearer evidence that the *anaktoron* was built at the beginning of the Pantalica culture and was apparently used, though lacking direct archaeological confirmation, to the culture's end (Bernabò Brea 1990: 78, 101). In between no structural phases can be distinguished. Pantalica is primarily known from its cemeteries, though. Into the site's hillsides were cut some five thousand chamber tombs, many in precipitous circumstances. Orsi (1899; 1912) explored these tombs, revealing that they followed a sequence in their usage: the north cemetery being the earliest, the south one of more recent date (fig. I.3).

⁸ James *et al.* (1991: 36-39) would like to reduce this absolute figure by a century or more by eliminating the Pantalica South (or Pantalica III) phase (see, however, below).

⁹ Battaglia and Alliata (1991: 26) suggest a figure of 66 hectares, and Coarelli and Torelli (1984: 301) a figure of 80 hectares. Bernabò Brea (1990: 102-103) has called for excavations in the settlement.

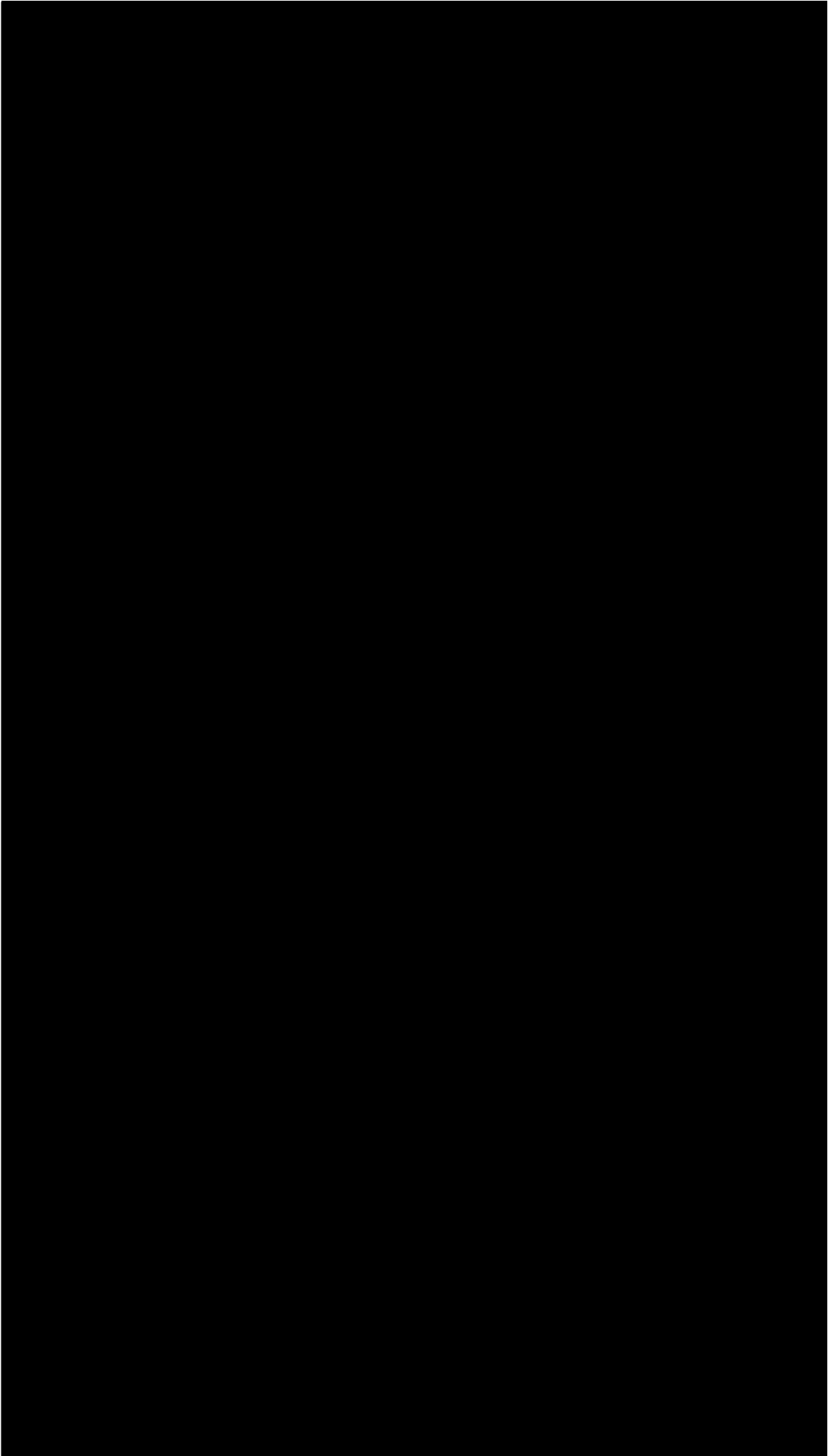


Fig. I.4. The *anaktoron* at Pantalica (after Bernabò Brea 1990: 74, fig. 7).

The first phase of the Pantalica culture is known as Pantalica North (or Pantalica I-Caltagirone) from being represented most in the north and north-west cemeteries of Pantalica itself. The Pantalica North phase is usually dated to *ca.* 1250-*ca.* 1050 (Bernabò Brea 1990: 40-43); however, according to Leighton (1993: 272-273), the date of 1250 is too low for the initial occupation of Pantalica. Mycenaeanisation is evident in this period (Bietti Sestieri 1985: 326; Leighton 1985), as it is in central southern Sicily (La Rosa 1993-94: 28-33). The local pottery has a rich red surface; some vases are of the large pedestal sort commonly found in Thapsos-culture pottery assemblages. Grave-goods could include bronze fibulae of the violin-bow and simple arched types, gold rings, daggers, swords, and axes. This metalwork belongs to a *koine* that encompasses the Aegean, the central Mediterranean, and Europe; production is believed to be due to itinerant craftsmen (Albanese Procelli 1995: 37; Giardino 1995: 17-21, 31, 34, 284-285).

Besides Pantalica, Caltagirone and Dessueri are thought to be other major centres of regional significance. At Caltagirone 1,000 chamber tombs (among them the vaulted tholos type) and their contents have been studied (Orsi 1904); no settlement evidence is so far available (*BTCGI* iv.273-276). Dessueri, on the other hand, has revealed traces of its settlement, huts, fortifications, and a large, recently discovered rectangular building, possibly an *anaktoron* (on the latter, see Wilson, forthcoming). Some 1,700 tombs are also known, 1,500 of these Orsi (1912) excavated and 200 more since 1991 (Wilson, forthcoming). As at Pantalica, these tombs were cut into the hillside (pl. 4).

The second phase of the Pantalica culture takes its name from Cassibile cemetery (*BTCGI* v.45-53) south-east of Pantalica (fig. I.1).¹⁰ Bernabò Brea (1990: 45-65) dates

¹⁰ S. Tusa (1992: 611-612) combines the Cassibile phase with Thapsos III to create the Cassibile-Thapsos culture.

the Cassibile (or Pantalica II-Cassibile) phase to *ca.* 1050-*ca.* 850, but the latter date must be lowered to the middle of the next century (Leighton 1993: 273-274). The Cassibile cemetery consists of about 2,000 quadrangular-shaped chamber tombs cut into the steep hillsides of the Cassibile river-valley; nothing is known of the accompanying settlement (Orsi 1899: 33-146; S. Tusa 1992: 614-616). The pottery continues traditions of the preceding phase, though with one innovation: the painted *piumata* (or "plumed") pottery with geometric designs. Several examples of this ware have been found at Pontecagnano in Campania (D'Agostino & Gastaldi 1988: 108, 115; Albanese Procelli 1995: 42) and in Malta (La Rosa 1989: 14). Objects in bronze also mostly follow previous traditions; the most notable newcomer is the so-called Cassibile fibula, a large stilted, usually looped fibula with straight pin. Metallurgic production shares much in common with south Italy, particularly Calabria (Albanese Procelli 1995: 39; Giardino 1995: 21, 26). The Pantalica II-Cassibile phase is mostly attested in south-east Sicily (Frasca 1996: 139-142).

The next phase is Pantalica South (or Pantalica III), deriving its name from the second major phase of the (south) cemeteries at Pantalica. The phase is traditionally dated to *ca.* 850-*ca.* 750/730 (Bernabò Brea 1990: 40; La Rosa 1989: 18), but again overlap--extending to the early seventh century--with the following phase of the Pantalica culture appears likely (Leighton 1993: 274). Tomb type begins to change to rectangular chambers with a flat roof. Iron first appeared in this period, possibly introduced by the Phoenicians (Bernabò Brea 1990: 62-63), though mainland Italian inspiration is also possible because Sicily and Calabria again find themselves part of a common metallurgical tradition at this time (Albanese Procelli 1995: 39, 41; Giardino 1995: 26, 31).¹¹ This

¹¹ Earlier Bernabò Brea (1957: 160) believed the Greeks introduced iron into Sicily. See generally Snodgrass (1980b: 362-363).

metal was used in making fibula, knives, arrowheads, and jewellery. "*Piumata*" pottery continues. The distribution of the Pantalica South phase largely follows the pattern of the previous phase.

The fourth and final phase of the Pantalica culture is the Finocchito, named after the type site (*BT CGI* x.342-347) represented by the most tombs (few tombs are actually represented at Pantalica itself). This phase is dated to *ca.* 750/730-*ca.* 650 (La Rosa 1989: 35; Bernabò Brea 1990: 40; Leighton 1993: 274). Two periods can be distinguished at Monte Finocchito (Frasca 1981: 67-70). The first runs from the mid-ninth century, when the site first emerged, to the first two-thirds of the eighth century. The settlement seems to have consisted of several nuclei (Frasca 1981: 71, 93). The second period, subdivided into A (725/730-*ca.* 700) and B (*ca.* 700-665), follows closely the development of Greek (Syracusan) colonisation. Population appears to have concentrated in a single site (Frasca 1981: 93-94), now protected by a fortification wall with towers. Greek pottery and its imitations have been found at Finocchito: four EPC kotylai (Frasca 1979: 90; 1981: 36, 46; Steures 1980: 46, 73, 129) and copies of Thapsos cups (Frasca 1978: 116-118). In general, imported and imitated Greek pottery is found in other native contexts as well.¹² Greek inspiration can also be seen in some native metalwork (Bernabò Brea 1957: 160; La Rosa 1989: 37; Albanese Procelli 1995: 42-43).

¹² Kamarina area: G. Di Stefano (1987a: 150-152); Modica and area: Pelagatti (1982: 117-118, 124-125); contrada Ronchetto: Pelagatti (1982: 119); Castelluccio: Pelagatti (1982: 124); contrada Serrapalazzo: Pelagatti (1982: 120); Pantalica: Bernabò Brea (1973: 53); Lentini: Lagona (1978: 38-39); Ossini: Villard and Vallet (1956: 12-14; Lagona 1971: 24-26, 28); Castello S. Filippo: Wilson (forthcoming); Cocolonazzo di Mola: Villard and Vallet (1956: 16). The quantities involved generally consist of one or two items; Ossini, Leontinoi, and Castello S. Filippo are the exception, with at least a dozen items at the former, though much remains unpublished (Dehl 1984: 232). All this material is being studied for an Oxford doctoral thesis (Hodos, in progress).

In the Finocchito phase coastal sites occupied by natives were yielded to Greek colonists, and on the whole the settlement pattern is rather more constricted than in the previous phase (S. Tusa 1992: 638; Frasca 1996: 142-144).

So what was the nature of this native society encountered by the Greeks? It should first be pointed out that this question is still far from being answered in a truly satisfactory manner (La Rosa 1989: 89), yet there are several clues which, pieced together, allow some sort of outline to be built up.

Pantalica is clearly not alone in importance; Caltagirone and Dessueri must also be taken into consideration in assessing the nature of this culture. Geographically speaking, these three main centres, apart from being separated by considerable distances (fig. I.1), are situated in similar circumstances, that is, they are in the hilly interior, built on isolated hilltops surrounded by rivers. Site selection was dictated by the "...necessities of territorial control and defence" (Bietti Sestieri 1981: 150). Thus we have what seems to be a "central place" controlling a surrounding area with smaller, satellite sites within this domain.¹³ The population of these three centres has been estimated on the basis of their tombs: 1,000-2,000 at Pantalica (Bietti Sestieri 1979: 608; Holloway 1985: 389) and a few hundred at Caltagirone and Dessueri (Bietti Sestieri 1981: 150).¹⁴ Furthermore,

¹³ Rivettazzo and pre-Greek Akrai, for example, were probably satellites under Pantalica's control (Bernabò Brea 1957: 164; Bietti Sestieri 1979: 610; Leighton 1985: 406). The size of the settlement at Rivettazzo has been estimated at 6.5 hectares (Battaglia & Alliata 1991: 26), at least one-tenth the estimated size of Pantalica's settlement.

¹⁴ For Pantalica Malone et al. (1994: 176) simply repeat these previous estimates, without questioning the representativeness of the sample; it remains to be seen whether a complete social spectrum was buried in these tombs (for fuller discussion of this problem, see ch. III below). Battaglia and Alliata (1991: 26) have estimated the population of Pantalica at 1,848-4,290 on 66 hectares. But this can only be a very rough starting-point because the calculations are based, in the first place, on an estimated settlement size, which has presently little to say about the usage of intra-site space. In any

these cemeteries provide, in their earlier phases, clear indications of social stratification, namely, in terms of the monumentality of some tombs and the corresponding richness of their contents (Bietti Sestieri 1981: 151-152; Leighton 1985: 406; Malone *et al.* 1994: 191). The existence of multiple chamber graves at Pantalica and Caltagirone (though less frequently at Dessucri) suggests a family burial tradition of the *gens* type with all its attendant implications; other social traits, like the status of the warrior, are also traceable in funerary ritual (Bietti Sestieri 1981: 152; Maniscalco 1985-86; La Rosa 1989: 90).

The *anaktoron* at Pantalica also provides clues. This building has been interpreted as the seat of a centrally organised society.¹⁵ The rôle of the *anaktoron* may have followed Mycenaean and Near Eastern lines, in that it was the centre of the storage of surplus and all economic affairs in general. This hypothesis is somewhat strengthened by the fact that evidence of metallurgical activity was found by Orsi in room A of the *anaktoron*, leading to the belief that the economy was regulated by the palace.¹⁶ It needs to be pointed out that nothing is directly known of the subsistence economy of the Pantalica culture beyond possible conjectures.¹⁷ It has been suggested, on the basis of modern conditions, that Pantalica's environmental circumstances seem to have been good for agriculture and pastoralism (Battaglia & Alliata 1991).¹⁸ This can only be regarded

case, it is permissible to suspect that demographically Pantalica was sizeable.

¹⁵ Bietti Sestieri (1981: 151); Leighton (1985: 406-407); La Rosa (1989: 92-93); Bernabò Brea (1990: esp. 36-37); S. Tusa (1992: 590-591).

¹⁶ Bietti Sestieri (1981: 151); Leighton (1985: 406-407); S. Tusa (1992: 590-591).

¹⁷ Leighton (1985: 406-407) has drawn attention to the need at Pantalica for field-work aimed at reconstructing the palaeoenvironment.

¹⁸ Without studying the question in detail, Malone *et al.* (1994: 182) reckon such a mixed economy appropriate for the Bronze Age as a whole.

as a first step in rectifying the lack of "direct empirical evidence" (Malone *et al.* 1994: 169). As with Thapsos we can at best suspect that agricultural products exchanged with the outside world may have been the source of increased status and prosperity for some individuals.

The meagre glimpses of the nature of Pantalican society would suggest that its main centres may be identified as chiefdoms.¹⁹ Unfortunately, we are still at the stage of generalising, for it is assumed that Caltagirone and Dessueri were organised like Pantalica (the recent discovery of an *anaktoron*-like structure at Dessueri adds weight to this supposition). There is, moreover, the problem of regarding the nature of native society as basically constant down to the arrival of the Greeks, for much of what has been said applies to the Late Bronze Age. However, change doubtless occurred (as in the case of Monte Finocchito), meeting the new circumstances and challenges inevitably confronted by any society. Leighton (1996c) has now suggested that in early Iron Age Sicily (starting in the Pantalica II-Cassibile phase)--when contact with the Aegean and eastern Mediterranean had dwindled considerably--society seems to have been more egalitarian. As Leighton admits, more research is needed to confirm, or indeed negate, this hypothesis, but it is clear, on present evidence, that in eastern Sicily the Greeks met a native culture of considerable maturity and sophistication in all respects. The natives had long been accustomed to dealing with the outside world; these foreign groups had a visible impact on native culture, but all parties were politically equal.²⁰ Such external contacts,

¹⁹ Bietti Sestieri (1981: 152); Leighton (1985: 406); La Rosa (1989: 12); S. Tusa (1992: 590-591); Malone *et al.* (1994: 192).

²⁰ Bietti Sestieri (1988) has assessed the nature of the Mycenaean connection in the central Mediterranean. She has convincingly concluded that the Mycenaeans had no colonies or political control over these areas; the natives and Mycenaeans were on equal terms (though some Mycenaeans were certainly resident in the central Mediterranean:

moreover, helped to develop the natives' socio-political fabric and acted as a source of wealth and knowledge. The natives were widely distributed in the landscape, as remains of their settlements and cemeteries clearly demonstrate. Eastern Sicily, therefore, was hardly "une forêt vierge" when the Greeks established their colonies.

The Foundation of the Greek Colonies of Eastern Sicily

Pre-colonial Contacts

The Mycenaean artefacts and influences found in native contexts in the central Mediterranean have attracted much attention for the question of continuity between the Late Bronze Age and Greek colonisation of the eighth century (for Sicily, see recently De Miro 1991). Pre-colonial is an inappropriate description of these Mycenaean contacts.²¹ Rather, the pre-colonisation concept should be used as follows: "We need to know that these contacts took place not only before colonization, but also sufficiently close to it in time for there to be a real historical connection" (Graham 1990: 46). The onset of the Greek dark ages severed all interaction with the central Mediterranean, as the archaeological evidence seems to suggest;²² contacts were renewed in the eighth century. It is only in these eighth-century contacts that pre-colonisation may legitimately be sought.

The Greeks certainly had knowledge of Sicily before settling there permanently in the second half of the eighth century (*cf.* Purcell 1990). The evidence for this claim is

Bietti Sestieri 1988: 26-30).

²¹ Voza (1986), Acquaro *et al.* (1988), and Pallottino (1991: 44) use "pre-colonial" in this erroneous way.

²² "...n'oublions pas que la continuité jusqu'à l'époque coloniale reste à démontrer" (Gras 1986: 7). Nor can the Heroic-Age myths of wandering heroes be taken as evidence of continuity; the localising of such myths belongs most likely to the period after the establishment of the eighth-century colonies (Ridgway 1990: 69; Dench 1995: 33-38).

indirect: Pithekoussai came into being before the Greeks established colonies in Sicily, and travel to Pithekoussai had to be through the Straits of Messina.²³ The Greeks thus came to have knowledge of the existence of Sicily. The rather recent discoveries at Villasmundo, in what was later the territory of Megara Hyblaia (fig. I.1), have sometimes been taken as evidence of pre-colonisation. Closer scrutiny suggests otherwise.

Traces of an Early Bronze Age (Castelluccian culture) village are known at Villasmundo, but focus has centred on the tombs associated with this settlement. These tombs were re-used in the eighth century (Voza 1978a: 104); some contained imported Greek pottery and local imitations. Of Corinthian pottery are examples of Aetos 666 kotylai and Thapsos cups, most of which objects the excavator places before the middle of the eighth century (Voza 1978a: 108-109). There is more Corinthian pottery and its (Greek) imitations on display in the Museo P. Orsi in Siracusa: an oinochoe found in tomb 33, a small crater perhaps of Corinthian make from tomb 11, and a cup of Corinthian type, all dated to the third quarter of the eighth century; four EPC kotylai are also known (tombs 100, 105, 106, 115). The oldest Euboian pottery is represented by a pendent semi-circle skyphos and chevron skyphos, both of which the excavator places well before the middle of the eighth century (Voza 1978a: 108). From the third quarter of the eighth century is a kotyle possibly of Euboian fabric (tomb 0), and no Euboian material, it seems, from the next quarter-century. Fabrics defined as Euboian-Cycladic are dated to the third quarter of the eighth century (cups and a kyathos), and three kyathoi probably of this same

²³ For Pithekoussai, see generally Ridgway (1992) and various papers in Tsetskhladze and De Angelis (1994) and in D'Agostino and Ridgway (1994). Mt. Etna, in central eastern Sicily, would have been a prominent point of reference for sailors. The mountain rises to a height of nearly 10,740 feet (AHI i.404), and at sea the summit could still be seen from a distance of about 150 miles (a calculation based on information in Aubet 1993: 142).

fabric belong to the last quarter of the eighth century. There are more LG imports, but their origins cannot be precisely placed (Athens is one possible source: Voza 1978a: 109).

Material earlier than LG I may *prima facie* be taken as pre-colonial. In particular, the pendent semi-circle skyphos and the chevron skyphos, both of Euboian fabric, appear to be clear-cut pre-colonial material. The Villasmundo pendent semi-circle skyphos belongs to Kearsley's (1989: 69-70, 101, 128) type 6, which dates, she argues, to anywhere in the second half of the eighth century.²⁴ As for the chevron skyphos, Descoeudres and Kearsley (1983: 11-34) have demonstrated that the production of this type of pot can, in date, "float" anywhere in the eighth, even seventh centuries. Any attempt to assign these pieces to a very precise point in time, without solid reasons, is a bold and unwarranted step.²⁵ Before the Villasmundo material was available, evidence for pre-colonisation in Sicily did not exist (Coldstream 1968: 373-376). It may still be said that there is no certain material confirmation of the pre-colonial contacts the Greeks doubtless entertained with the island (see now Leighton 1993: 274).

The Establishment of the Colonies

The reasons for Greek colonisation have been endlessly debated, perhaps too much so (Morel 1984: 123-124; cf. Snodgrass 1994: 1). What made Sicily attractive was above all its fertile abundant land, and perhaps its geographic location at the crossroads of the

²⁴ Popham and Lemos (1992) have challenged this dating, but it is accepted by Graham (1990: 48) and Snodgrass (1994: 4).

²⁵ As Graham (1990: 48-49) concludes. Torelli (in Rizza 1978a: 148) criticised Voza, the excavator of Villasmundo, for providing "poche notizie" of the context of the finds though much interpretation. Undeniably, Villasmundo is at present the linchpin for any discussion of the pre-colonial period in Sicily, yet sadly the material remains to be properly published (there is material on display in the Museo P. Orsi in Siracusa which does not seem to have received any mention in print).

Mediterranean. We will never know in detail the reason(s)--*e.g.*, political, economic, demographic--why the Greeks colonised Sicily in the eighth century, though it is safe to say that whatever the reasons Sicily could accommodate them all.

Three groups were responsible for colonising eastern Sicily. The Khalkidians were the first and most active of these groups, founding, according to ancient tradition, at least four major settlements. Naxos was the earliest (*BTCGI* xii.265-312); there are two basic traditions about it. In the first, Ephoros (*FGrH* 70 F137) says that under Theokles Naxos and Megara (Hyblaia) were the first Greek *poleis* of Sicily, founded in the tenth generation after the Trojan War. As Graham (1988: 306) has argued, Ephoros used *ca.* 1150 for the Trojan War and allotted thirty years to a generation; on the basis of these figures, a foundation-date for Naxos of 850 is arrived at (that is: 1150 - 10 generations x 30 years = 850). Even if we follow Prakken (1943: 100) in believing that Ephoros used a generation of 33 $\frac{1}{3}$ or 35 years, a rather precocious date for Naxos is still produced. Accordingly, Ephoros' date has been rejected (Dunbabin 1948: 10 n.1; Bérard 1957: 75-79).

Thucydides (vi.3.1) provides the commonly-accepted details. Here Thoukles, departing from Khalkis, led the expedition to found the first Greek settlement in Sicily. Thucydides' date for this event is intricately tied up with his whole account of Greek settlement of eastern Sicily. The only Greek colony that is actually dated is Megara Hyblaia; the remaining ones are dated in relation to it. Thucydides (vi.4.1) says that Megara Hyblaia existed for 245 years before being destroyed by Syracuse. From Herodotos (vii.156) we can date that destruction between 485 and 480, and scholars have argued that 483/2 is the likeliest (Dunbabin 1948: 435; Bérard 1957: 115-116; R. Van Compernelle 1959: 417, 420-421). Megara Hyblaia's foundation-date is thus around

728/7. To calculate Naxos' foundation-date we must work our way back from this date. Thucydides (vi.4.1) says Megarian colonists set out from Greece around the time Leontinoi and Katane were founded. On this basis Leontinoi and Katane have traditionally been placed in 729/8 (*e.g.*, Dunbabin 1948: 436). Then Thucydides (vi.3.3) adds that Leontinoi was established in the fifth year after Syracuse, which by implication would place the latter's foundation in 734/3. For Syracuse Thucydides (vi.3.2) gives his final chronological indication: established only a year after Naxos, which implies a foundation-date of 735/4 for that latter. The earliest pottery from Naxos is compatible with this date (Pelagatti 1978c: 138-141; 1982: 141-163).²⁶ Some eighth-century native sherds have been found at the site, yet actual native occupation remains uncertain (Procelli 1983: 64-66, 68).

As just mentioned, Leontinoi was settled in the fifth year after Syracuse (Thuc. vi.3.3), that is, in around 729/8. The Naxian oikist, Thoukles, led the colonists, who expelled the Sikels already living there. Archaeology has confirmed this native occupation on the nearby Metapiccola hill (Rizza 1962; *BTCGI* viii.524-555). The oldest Greek settlement is to be found on the hill of S. Mauro (Rizza 1978b: 33), on which the eighth-century pottery, mainly Korinthian and Euboian, has been found (Rizza 1978b: 35). None

²⁶ Graham (1982a: *passim*) misleads in saying that archaeology has confirmed Thucydides' foundation-dates; to use pottery chronology to confirm dates found in written sources is circular argumentation, as the former is based on the latter (see de Waele 1971: 88-89; Snodgrass 1987: 52-56; Bowden 1991: 49-50; Kosso 1995: 190). Archaeology has succeeded in establishing a relative order for the colonies, but the absolute dating is more problematic: Gras (1986: 12, 15-16) urges scholars not to be as rigid as previous generations in using colonial chronology, especially as regards the very earliest periods. The archaic absolute chronology followed in this study is essentially that of Amyx (1988: 397-434, esp. 428), which incorporates the various minor modifications to the foundations laid by Payne (1931; 1933) for Korinthian pottery chronology. Any specific problems raised by the Payne/Amyx system of chronology are dealt with in their appropriate context in this study.

of this pottery is earlier than the middle of the eighth century (Dehl 1984: 213-215).

Katane was established soon after Leontinoi; the oikist was Euarkhos, not Thoukles (Thuc. vi.3.3). It is still not certain whether the site was occupied before the arrival of the Greeks (Procelli 1992: 78; *BTCGI* v.153-177). Excavations on the highest point of the city (perhaps the acropolis of Greek Katane), uncovered the oldest Greek pottery known, two fragments of Thapsos cups (Rizza 1980: 22). These same excavations also brought to light imported PC pottery, other Aegean fabrics, and pottery of local production.²⁷ None of this pottery dates to before the second half of the eighth century.

The Khalkidians wrapped up their main settlement activity with the foundation of Zankle (*BTCGI* x.1-65). Thucydides' (vi.4.5-6) account of Zankle's foundation preserves no foundation-date; the only chronological indication is that Perieres led Khalkidian pirates from Italian Kyme to found it (later this original group was joined by more colonists under Krataimenes of Khalkis). The Eusebian date for Zankle of 757/6 (ed. Schöne, p. 80) is regarded by scholars as too high, and accordingly lowered to ^{the} second half of the 730s (*e.g.*, Cordano 1986: 45) for two reasons: Zankle could only have been founded between Kyme's foundation of *ca.* 740 (Coldstream 1994: 53-54) and the foundation of Mylai, Zankle's sub-colony, around 730-720 (Bernabò Brea & Cavallier 1959: 116-117). The earliest pottery from Zankle consists of fragments of Thapsos cups and much PC (Bacci 1978). Native occupation of the site is supposed because of Thucydides' remarks that the toponym derives from the native *zanklon* meaning "sickle" (Vallet 1958: 101-102)--an apt description for the topography of the site, but there are

²⁷ The excavator gives very few details of all this material (Rizza 1978c: 113). Cf. also Dehl (1984: 210-211).

so far no material remains to confirm this.

Korinth was the second major coloniser in eastern Sicily. Under Arkhias the colonists, after first expelling the Sikels from Ortygia, founded Syracuse in 734/3 (Thuc. vi.3.2).²⁸ Archaeology has confirmed the existence of natives settled there at the time (Frasca 1983). The earliest Greek pottery from Syracuse consists largely of imports from Korinth (Dehl 1984: 263-271). None of this pottery dates to before the middle of the eighth century.

The foundation of Megara Hyblaia brings to a close the first wave of Greek settlement in eastern Sicily. Thucydides (vi.4.1) records the trials and tribulations the Megarians experienced in setting up their colony. The Megarian oikist Lamis first directed the colonists to Trotilon (probably Brucoli: Manni 1981: 239; *BTCGI* iv.200-204). After an unspecified period of time, the Khalkidians of Leontinoi then invited the Megarians to join them.²⁹ Polyainos' (v.5.1) account adds more details to Thucydides' abbreviated version. The period of co-habitation is defined as six months. The Megarians are asked by the Khalkidians--unable themselves due to oaths--to expel the Sikels; the Megarians, having done so, were driven out as well.³⁰ The Megarians sought safety on Thapsos, where their oikist Lamis died.³¹ But even from Thapsos the Megarians were

²⁸ For other ancient accounts of the foundation of Syracuse, see Strabo (vi.2.4) and the briefer version of Ps.-Skymnos 279-282. Strabo, coupling Syracuse's foundation with Kroton, implies a foundation-date for both of around 709/8 (Bérard 1957: 122), not accepted by scholars.

²⁹ The Megarian alphabet is inscribed on an eighth-century wall at Leontinoi, and Manni Piraino (in Rizza 1978a: 38) suggests that this may supply independent evidence of such co-habitation.

³⁰ Perhaps all along the Khalkidians had wanted to foil Megarian settlement in eastern Sicily.

³¹ In Polyainos the Megarians retire to Trotilon. Either Polyainos has confused Thapsos and Trotilon, or Thucydides has abbreviated the narrative; in any case the difference is not significant. On Thapsos

driven out, probably by neighbouring Syracuse, which would not have wanted other Greek colonists on its doorstep.³² The Sikel king Hyblon invited them to settle on the mainland, bringing to an end the plight of the Megarians.

The historicity of these wanderings has never been challenged,³³ and, besides the possible archaeological indications of the Megarians at Leontinoi and Thapsos, the events narrated make sense on topographic and historic grounds, which Bernabò Brea (1968) and Graham (1988: 311-317) have attempted to recapture. The picture sketched out may not be completely correct--in truth, we know very little of these early events, but Bernabò Brea and Graham have succeeded in giving a taste of the possible sort of socio-political backdrop against which Megara Hyblaia was founded.³⁴

In this reconstruction Hyblon ceded part of his realm to the Megarians to win their friendship,³⁵ since he would have been well aware of the fate of the Sikels at Leontinoi and

Orsi (1895a: 103-104) excavated a re-used Bronze Age chamber tomb, sometimes thought to contain Lamis (Bérard 1957: 113) or at least a fellow Megarian (Bernabò Brea 1968: 172). The tomb contained two Corinthian LG I cups (later known, from this find-spot, as Thapsos cups) and a pair of bronze tweezers placed around two skeletons. Orsi and most scholars have stopped short of labelling this Lamis' grave, but agree in seeing possible evidence of the Megarians (Dunbabin 1948: 19; Vallet & Villard 1952: 337; Malkin 1987: 213; Graham 1988: 310).

³² Pugliese Carratelli (in V. Tusa 1983: 17), Figueira (1985b: 269), and Graham (1988: 310) believe that Syracuse was responsible.

³³ Recently Malkin (1994b: 90), for instance, has accepted the historicity of Hyblon and such colonisation "by invitation".

³⁴ The shortcoming of Bernabò Brea's paper is the acceptance, now shown to be incorrect, of the high foundation-date for Megara Hyblaia espoused by Vallet and Villard (in fact this argument from silence is built on: Bernabò Brea 1968: 162, 175). Graham has restored Syracuse to its rightful place.

³⁵ There has been much speculation concerning the seat of Hyblon's kingdom, for we are not told directly where it lay. Pantalica is often assumed to have been this centre (most recently by Domínguez 1989: 264); however, there is no direct evidence to prove this, or at least to point in this direction without some kind of assumption. Other native sites, like Villasmundo, though less impressive materially speaking, are equally possible (Graham 1988: 314-316; Albanese Procelli 1995: 44).

Syracuse. Graham proceeds further. The last two lines of Thoukydides (vi.4.1)--ἐκ τῆς Θάψου ἀναστάντες Ὑβλωνος βασιλέως Σικελοῦ προδόντος τὴν χώραν καὶ καθηγησαμένου Μεγαρέας ᾧκισαν τοὺς Ὑβλαίους κληθέντας--are translated by Graham (1988: 312) as follows: "When they had been expelled from Thapsus, they colonized Megara, which is called Hyblaea, because the Sicel king Hyblon betrayed the land to them and showed them the way." Graham (1988: 313) hypothesises that in doing so Hyblon went against the wishes of, say, a Sikel alliance, or his own people by offering land to the Megarians. In any case, Hyblon's ultimate aim was to secure the safety of the Sikels.

As archaeology has revealed, the site given to the Megarians was not inhabited at the time of colonisation (Vallet & Villard 1960: 263-264; *MH* i.344; *BTCGI* ix.511-534).³⁶ The earliest settlement pottery dates to the second half of the eighth century in contexts indicating use by the first-generation colonists (*MH* ii).³⁷ The site itself lies between the river Cantera and the San Cusumano torrent, on a seaside plateau of limestone, some 20 km. north-west of Syracuse and about the same distance south-west

³⁶ It is highly unlikely that Orsi's (1921: pt. i) Neolithic village, located within Megara Hyblaia's later city wall, was visible and consequently had any special significance to the Megarians (Malkin 1987: 172).

³⁷ The French excavators of Megara Hyblaia once believed that their site was founded before Syracuse. This view was based on the absence of certain LG I pots at Syracuse (though present at Megara Hyblaia) and the tradition in Ephoros which makes Naxos and Megara Hyblaia the first Greek colonies of Sicily (Vallet & Villard 1952; Vallet 1968: 138-139). The archaeological side of their argument was founded on the argument from silence, yet it continued to hold sway so long as Syracuse's earliest levels remained unexplored. Pelagatti's (1978b: 127-130; 1982: 125-138) careful excavations have come up with the missing material, similar to the earliest from Megara Hyblaia, causing Vallet (in Rizza 1978a: 150-152), for his part, to retract his original opinion. Villard (1982), however, has subsequently claimed that several sherds from Megara Hyblaia are of MG date, thus upholding the original historical reconstruction.

of Leontinoi.³⁸ In roughly the middle of the site there is a natural depression (some 300 m. deep) known as L'Arenella, dividing it into two rather distinct plateaux. The landward sides of the site are completely flat, with nothing remotely resembling an acropolis, or any other natural defences (pl. 5). The eastern edge of the site meets the sea mostly as cliffs (the sea is about 12 m. below), though there are more accessible places, particularly around the mouth of the Cantera, which provided good possibilities for a port (pl. 6).³⁹ Numerous landslips have been recorded along this eastern side, due to the layer of marl located at almost sea-level. Above this layer of marl is one of limestone, rendering the area rich in natural sources of water. This was a site suitable for human settlement.

³⁸ The Cantera is identified with the ancient Alabon (Manni 1981: 96-97). On the geography of the site, see *MH* iii.145 and Vallet and Voza (1984: 26).

³⁹ See Lena *et al.* (1988: 38, 40). The sea seems to have been lower in antiquity (Lena *et al.* 1988: 7).

CHAPTER H:
SETTLEMENT DEVELOPMENT

Introduction

The discussion below is divided into two parts. In part one, the settlement data are treated in quarter-century, half-century, and century blocks (depending on how chronologically precise the evidence is), to trace the patterns of settlement development. Instead of lumping all these data together, where possible I divide them further into three categories: domestic space, public space, and religious space. Sometimes there is an "other space" category when the date is clear but the function is not. This division of space into categories obviously simplifies (*cf.* Nenci 1979: 468, 476), but as long as it is remembered that "domestic", "public", and "religious" space (and many other possible descriptions of space) were all interrelated and overlapped in one system, any proposed division of space provides a suitable working framework. In part two, the focus turns to settlement size and settlement process and the use of space in the settlement.¹

Settlement Patterns

I. 725-700 BC

The first settlement must have consisted of huts and other structures of a more ephemeral nature (as stressed by Gullini 1978a: 446-447, 448 n. 27), although no such traces have thus far come to light.

Megara Hyblaia's earliest remains belong to a planned settlement, of which some 2.25 hectares have been excavated (figs. II.1-2). The plan consists of streets which divide up the settlement into numerous blocks and an *agora*. Streets A and B run in a roughly east-west direction, crossed by north-south running streets C and D (fig. II.1). Street A's

¹ Demographic and social analyses of the settlement data are contained in the following two chapters (III & IV).

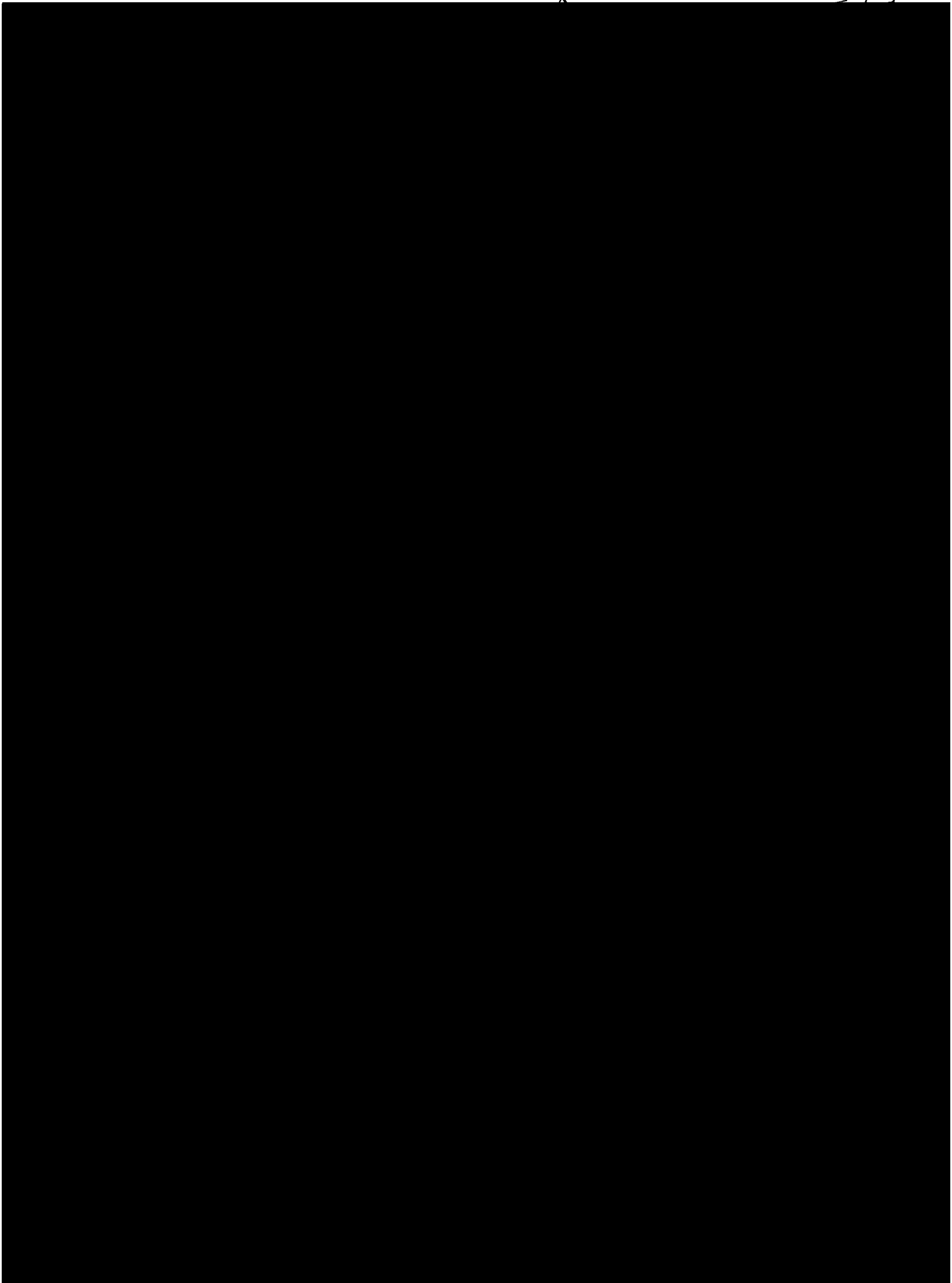


Fig. II.1. Megara Hyblaia: the *agora* and its environs (after De Angelis 1994: 103, fig. 6.6).

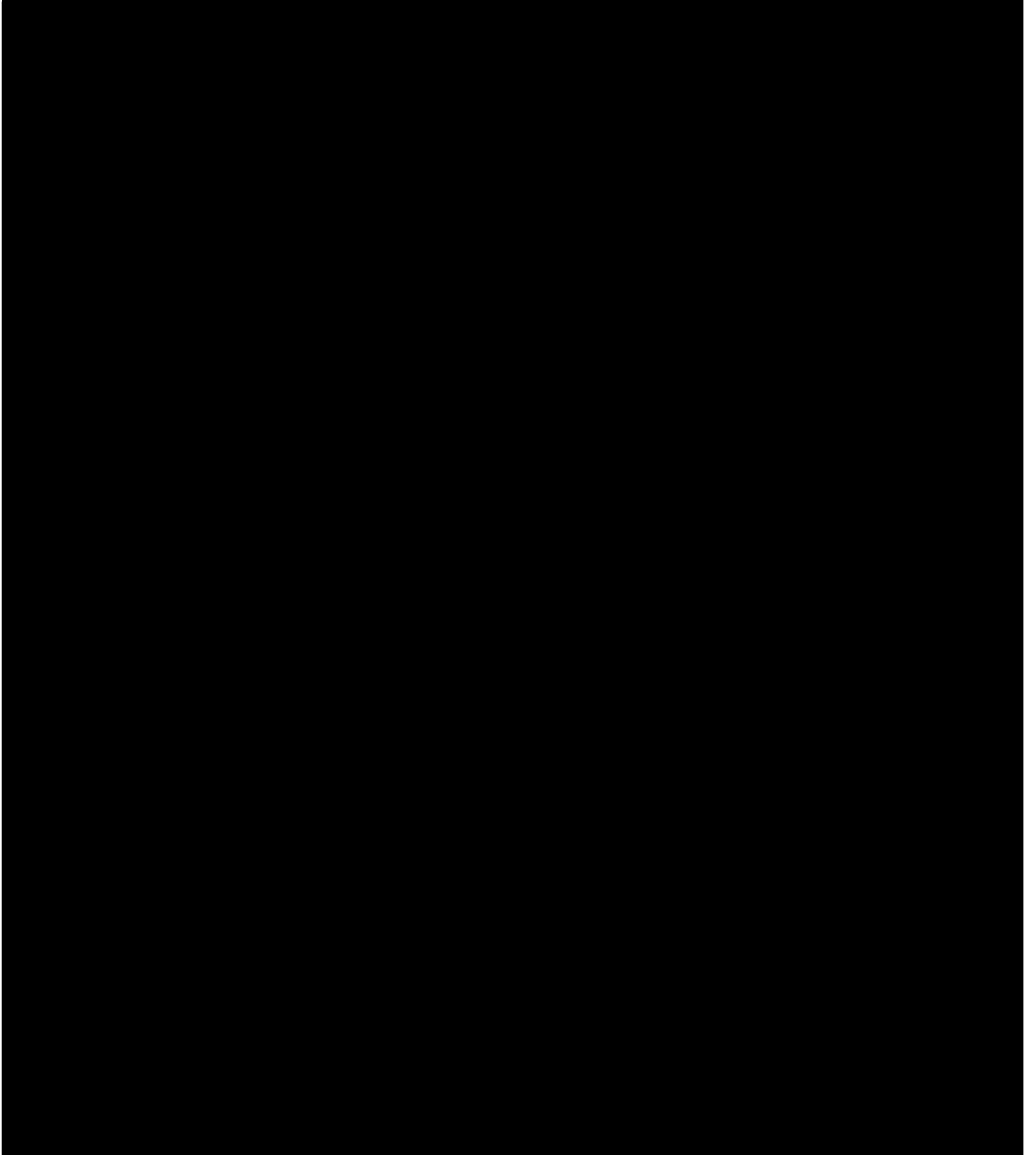


Fig. II.2. Megara Hyblaia: general site plan (after Vallet & Voza 1984: 56, fig. 23).

width varies between 5.3 and 6 m. (*MH* i.351) and street B's between 5.5 and 5.8 m. (*MH* i. 353) (pl. 7). Streets C1-3 are located west of the *agora*. Of this group, street C1 is the most important; it is between 5.4 and 5.8 m. wide, and forms the western boundary of the *agora* (*MH* i.355). Street C2 is only *ca.* 3 m. wide (*MH* i.357-358). The remaining street (C3) of this group is of unknown length and width because of overlying hellenistic fortifications, which prevented proper exploration, but it is thought to have been of width similar to the latter (*MH* i.359). The other group (D) of north-south streets, located to the east of the *agora*, are oriented at a 21° angle to the previous group. All of these streets, including D1, which acts as the *agora*'s eastern boundary, are 3 m. wide (*MH* i.359-360).

The intersection of cross-streets A and B with the C-D group produced elongated blocks of trapezoidal shape (the only exception is block 3, a parallelogram) (*MH* i.325). The blocks are generally around 25 m. wide, except in the case of blocks 8, 10, and 13, which vary given their unique position (*MH* i.325-345). The lengths of only the blocks located between streets A and B are known (*MH* i.325, 327-328, 337). Since the latter two cross-streets are not parallel, there is accordingly much variation in lengths. The west side of block 21, for instance, is (at 107 m.) two metres longer than its east side. Similarly, block 6 has lengths of 112.5 m. (east) and 116 m. (west). The blocks were divided into two by a longitudinally-running median line (0.45 m. wide) constructed in stone, usually at a later date. The blocks are located around the central feature of the plan, as known, namely the *agora*, whose dimensions are 58 m. (north), 71 m. (south), 44 m. (west), and 30 m. (east).²

² Bergquist (1992: 158, *cf.* 134-135), finding no parallel for Megara Hyblaia's *agora* in the west, has questioned whether it was really not a *temenos*. Recent research at Selinous, however, whose

The design and execution of Megara Hyblaia's town plan seems to belong to the eighth century; three clues support this idea. First, house alignment: every eighth-century house was built aligned with either the streets or, in the majority of cases, with the median line of the block in which it was located. Second, a space of 0.45 m. was reserved probably in the eighth century for both the wall which defined the median line of the block and for the kerb-stones which ran all along the edges of the block, separating domestic from public space. These spaces were only materialised a century later (*MH* i.351-365), but they had already been spoken for long before (Vallet 1983a: 643; Gras 1986: 10). Third, all the streets and the *agora* were left free of any construction from the start as well (*MH* i.384, 388). These three points strongly suggest that Megara Hyblaia's plan is an eighth-century innovation (*MH* i.407).³

The known eighth-century architecture consists solely of houses. What is above all striking about these houses is their simple uniformity in plan and building technique: a single room measuring about 4.5 m. per side, and entered via the south side (*MH* i.269) (pl. 8).⁴ The walls are generally around 0.45 m. wide (throughout the archaic period wall thickness was slightly larger), and consist of two rows of orthostats set edgewise with no fill in between (fig. II.3: no. 1). The orthostats, *ca.* 0.45 m. high, are roughly quadrangular at their base and roughly polygonal at their summits (*MH* i.250). A dry-

results were unavailable to her, suggests the city had an *agora* comparable in shape to Megara Hyblaia's (see ch. VII below). This parallel seems to invalidate Bergquist's objection.

³ Pottery found in association with the eighth-century houses suggests that they began to come into being around 725. The existence of these houses presupposes the existence of the town plan; therefore, we may date the plan to around this same time. Syracuse's town plan also belongs to the eighth century (Di Vita 1990: 348-349; Wilson, forthcoming).

⁴ Eighth-century houses of similar design have been found at Syracuse, Naxos (Fusaro 1982: 15, 28; Cordano 1986: 114) and Heloros (Voza 1978b: 135).

HOUSE	BLOCK	NO. OF ROOMS	HOUSE SIZE (M. ²)	ASSOCIATED FEATURES	MHI REFERENCE
13,11	3	1	?*	-	35,263
21,1	3	1	18.2 min.**	-	46,263
29,9	5	1	?	-	75,264
22,5	6	1	15.66 min.	-	60,264
23,10	6	1	19.35	-	62,264
23,21	7	1	?	-	65,264
38,10	8	1	3.1 min.	silo	101,265
47,11	9	1	27.45 min.	silo, well	118-20,265-6
50,6	18	1	1.04 min.	-	130,266
58,20	18	1	13 min.	silo, bench	145,267
-	-	1	unpublished	-	Gras 1984-5
i,20?	10	1	?	-	168,189
i,40?	10	1	?	-	169,189
i,45?	10	1	?	-	169,189

TOTAL: 11(+3?)

Table II.1: Megara Hyblaia's eighth-century houses (725-700 BC).

* ? for house size means that only parts of walls survive which do not allow any overall indication of size to be given.

**min. (=minimum) following house size means that poor preservation allows only partial size to be given.

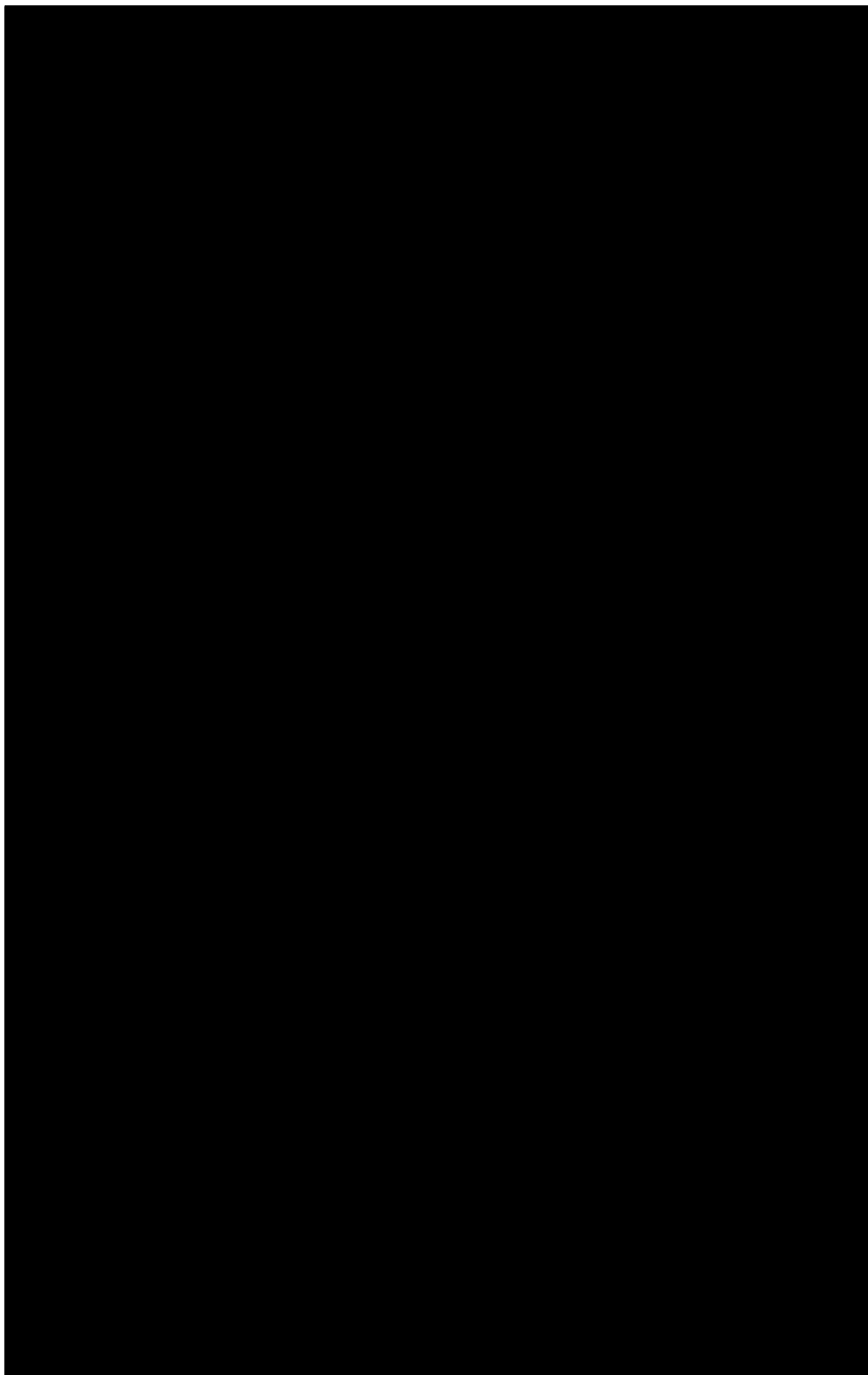


Fig. II.3. The eight basic masonry styles of archaic Megara Hyblaia (after *MH* i, tableau 2).

stone superstructure, of irregularly-shaped stones, sat on the orthostats. The heights of such superstructures, and the roofs crowning them, are unknown. This is a widespread problem, since *all* architecture at the site survives only in bare foundations (compare pls. 8-11).⁵ There are 11, possibly 14, houses belonging to the eighth century (table II.1).⁶ Silos were found in association with three of these houses (see chs. IV & V for discussion).

II. 700-675 BC

As with the eighth-century material, the next fifty years of settlement evidence is represented by domestic architecture alone. The previous uniformity in house size ends with the start of the seventh century, and gives way to variation consisting of one to three rooms (see ch. IV for possible social implications). Masonry style, by contrast, changes uniformly, over the whole site: in the first half of the seventh century, houses were very often built combining style 1b--an evolved version of 1 with irregular stones interspersed with the orthostats--and style 2, made up of irregular stones (*MH* i.251) (fig. II.3 no. 2).

Three new and two renovated houses belong to the first quarter of the seventh century (table II.2). A flagstone surface and court survive for two of these houses.

⁵ The little that may be said about roofing at Megara Hyblaia can be dealt with here. Given eighth-century house layout, it seems likeliest that roofs were made of thatch, or some similar (light) material, in a sloping or counter-perpendicular roof (*MH* i.255-257). Some clay roof tiles have been recovered from sixth-century houses and monuments, but as these specimens are not numerous further discussion is impossible. Nothing is known of seventh-century roofs (*MH* i.257). For hypothetical reconstructions of archaic houses, see *MH* i.266 fig. 34, 278 fig. 42, 287 fig. 47, 291 fig. 50, 294 fig. 52, and *MH* iii.27 fig. 24, 40 fig. 31, 44 fig. 33.

⁶ The numbering scheme (e.g., **13**, 11) for the houses is that devised by the French excavators. The first bold-faced number belongs to the *chantier* excavated, and the second refers to the wall or structure found within the *chantier*.

HOUSE	BLOCK	NO. OF ROOMS	HOUSE SIZE (M. ²)	ASSOCIATED FEATURES	MHI REFERENCE
47,10	9	2	45.75 min. (renov. 47,11)*	-	119
40,2a	12	1	10.1	-	105,275-6
33,17	16	1	14.4 min.	-	86,281
58,17	18	2	23.2 min. (renov. 58,20)	flagstone surface	142-4,295-6
64,5a-7	18	3	36.96 min.	court	154-5,282-3

TOTAL: 3 and 2 renovations

Table II.2: Megara Hyblaia's houses, first quarter of the seventh century (700-675 BC).

*renov. (=renovation to previously built house): information in columns three and four is cumulative, added on the figures of the original house given in parathenses.

HOUSE	BLOCK	NO. OF ROOMS	HOUSE SIZE (M. ²)	ASSOCIATED FEATURES	MHI REFERENCE
12,9a-b	3	2	7.8 min.	-	31,271-2
22,20a-c	6	3	57.4	-	57-8,272
23,8	6	1	22.5	-	60-2
50,2-3	15	2	28 min.	-	129-30,279
33,19a	16	2	44.2	-	87,281-2

TOTAL: 5

Table II.3: Megara Hyblaia's houses, second quarter of the seventh century (675-650 BC).

III. 675-650 BC

Five new houses were built in the next quarter-century (table II.3). They comprise between one and three rooms. No associated features survive for any of these houses.

IV. 700-650 BC

The houses under this heading are only broadly datable because of insufficient diagnostic material recovered in their excavation (table II.4). The number of houses in this group is slightly greater than the previous two quarter-centuries combined, with nine, possibly 13, new houses built and two older ones renovated. These houses consist of between one and four rooms; in only four cases are any associated features known.

V. 650-625 BC

Domestic space. Houses built in the second half of the seventh century almost always combined masonry type 2 with the newer type 3, comprising roughly dressed stone set in regular courses, with usually the former masonry type used in the foundations and the latter in the superstructure (fig. II.3: no. 3). In a small number of cases, one or the other of these masonry styles were used.

Two new houses and one renovated one belong to this time-period (table II.5). The houses are made up of two to four rooms. The remains of possibly a shed were discovered close to one of the houses of this period.

Public space. Public monuments make their first material appearance at this time.⁷

Building i occupies entirely block 10, in the south-west corner of the *agora* (MH i.168-183, 188-193) (fig. II.4). The building consists of two unequal parts (rectangular

⁷ In the mid-seventh century the wood and mud-brick sanctuaries of Gela were replaced in stone (Fiorentini 1992: 122). At Syracuse the mid-seventh century is also hypothesised as initiating a period of building, for it was at this time that the *polis* consolidated the majority of its territory (Parisi Presicce 1984: 66).

HOUSE	BLOCK	NO. OF ROOMS	HOUSE SIZE (M. ²)	ASSOCIATED FEATURES	MHI REFERENCE
14,1-2	3	1	10 min.	-	37,272
7,5	4	?	?	-	28,272
22,6	6	3	24.3 min. (renov. 22,5)	bench	54,272
14,17+ 23,11	6	3	34.35 (renov. 23,10)	-	41,62
23,14	6	1	10 min.	-	63,275
22,18+ 23,2	6	1	3.3 min.	-	57-9,272
23,5a-b	6	3	50.84	-	60,272-4
23,19	7	1	1.68 min.	-	64,275
23,22	7	1	4.5 min.	-	65,275
40,7a- c,11	12	4	63.63	2 wells	106-8,276-8
40,5+ 49,2	12	1	24.64	-	122-3,276-7
5,1?	1	?	?	-	25
14,24?	4	?	?	-	43
49,3,6, 8-9?	15	4?	33.84 min.	2 wells, flagstones	124-6
50,12?	18	?	?	-	131

TOTAL: 9(+4?) and 2 renovations

Table II.4: Megara Hyblaia's houses, first half of the seventh century (700-650 BC).

HOUSE	BLOCK	NO. OF ROOMS	HOUSE SIZE (M. ²)	ASSOCIATED FEATURES	MH I REFERENCE
22,7a-c	6	3?	37.5 min.	-	54
40,2a	12	4	52.98 (renov. 40,2a)	shed?	105,275-6 311
22,13a-c?	6	2	68.25 min.	well	55-6

TOTAL: 1(+1?) and 1 renovation

Table II.5: Megara Hyblaia's houses, third quarter of the seventh century (650-625 BC).

HOUSE	BLOCK	NO. OF ROOMS	HOUSE SIZE (M. ²)	ASSOCIATED FEATURES	MH I REFERENCE
20,1	2	1	9.9 min.	-	44,285
12,12a-c	3	3	18 min.	-	32,285
13,19	3	1	3 min.	-	36,285
38,14-7	8	2	22.2	well, shed?	101-2,280-1
47,4-5	9	2	19.5	-	118,289
58,6	15	1	16.9 min.	-	138,290
33,30-2	16	2	38	shed	92-3,291-2
33,35-7	16	2	42.78	well	94,293
50,9	18	2	10	-	131,294
64,6-7	18	2	23 min.	-	155,296
60,2	21	1 min.	15 min.	-	148-9,296
76,1	23	1 min.	20 min.	-	159,296

TOTAL: 12

Table II.6: Megara Hyblaia's houses, last quarter of the seventh century (625-600 BC).

and trapezoidal in shape), further subdivided into several rooms, which opened onto courts (*MH* i.190). Walls were originally built in masonry styles 2 and 3, with later additions made in types 5 and 8 (fig. II.3). The excavators left the question of function open, but Gullini (1978a: 433) suggests that the building served as the *bouleuterion*.

At the corner of streets A and C1 is building d, measuring 12.8 m. (north) by 12.6 m. (south) by 9.65 m. (east) by 9.45 m. (*MH* i.209) (fig. II.4). This building was divided into two almost equal parts which opened up, on the east side, to the *agora*. The outward-facing north, south, and east walls were built in type 8 masonry, whereas the west and interior partition walls were of type 2. The excavators have labelled this structure a *heroon* (*MH* i.211), an identification which Bergquist (1992: 141-143) has challenged, preferring to see the building as the *hestiatorion*.

The north border of the *agora* was marked off by the construction of a *stoa* (building e), quite badly preserved: its west and some of its south sections are missing (fig. II.4).⁸ The building, constructed in type 6 masonry, measures 41.45 m. by 5.9 m. (*MH* i.213). An entrance was left in the *stoa*'s north wall for pedestrian traffic; three columns, directly aligned with the sixteen-columned main colonnade, once stood in this entrance's threshold (*MH* i.215). A *bothros* (41,4 and 42,2) was built up against the *stoa*'s east wall (*MH* i.111-112).

Religious space. Only five blocks (in type 8 masonry) in two courses survive of an *in antis* temple (building g) located in the south-east corner of the *agora* (*MH* i.222-224) (fig. II.4) (pl. 9). The temple, oriented in an east-west manner, probably measured

⁸ The inclusion of *stoai* in the public space category does not of course preclude any other uses (e.g., religious) to which they could be put (see Coulton 1976: 8-13).

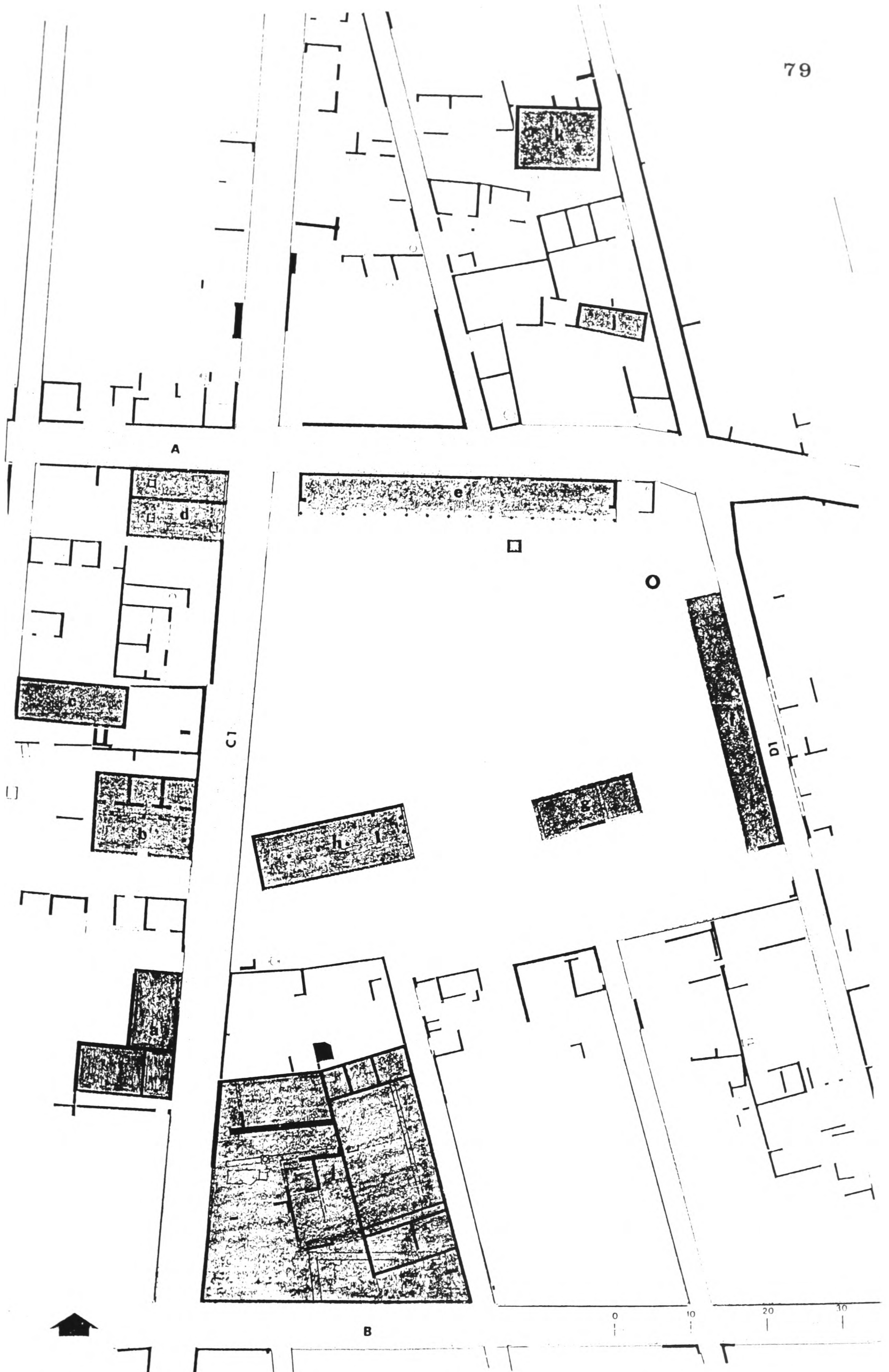


Fig. II.4. The *agora* monuments (after *MH* iii, fold-out fig. 4, with minor modifications).

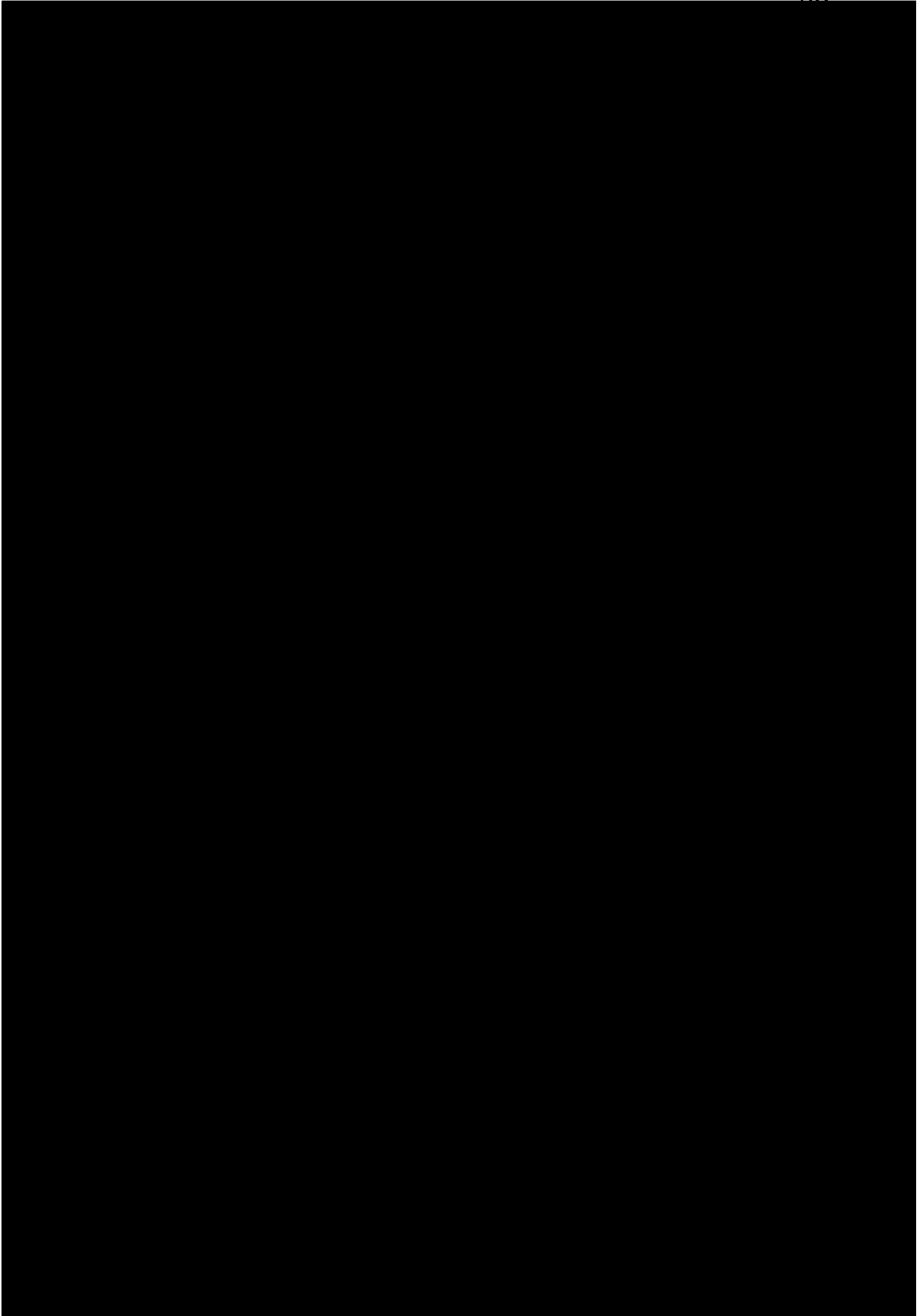


fig. II.5. Two reconstructed houses: house 63,2 (top) built in 650-600, and house 33,30 (bottom) built in 625-600 (after *MH* iii.44, fig. 33 and 27, fig. 24).

c. 15 m. by c. 6.5 m. (MH i.223).⁹

Another badly preserved temple (building j) comes from block 16 north of the *agora* (fig. II.4). The temple, built in masonry types 1b and 2a, measures 9.6 m. by 4.2/3.4 m. (MH i.231). The temple opened onto street D1, and did not follow the orientation of the other structures in the block (MH i.232).

From 650 a sacred area existed on the summit of the L'Arenella depression. Few details have been published (Gras 1984-85: 803).

VI. 625-600 BC

Domestic space. Twelve new houses can be assigned to the last quarter of the seventh century (table II.6). They consist of one to three rooms, though two houses are quite badly preserved and could have originally been bigger. Possible sheds were found associated with two of the houses.

Public space. A second *stoa* (building f) was constructed in the *agora*, along its east side, destroying an early seventh-century house (50,2-3) to make room (MH i.218-220) (fig. II.4). The *stoa* is poorly preserved: of the east wall 22.5 m. remain and only 3.8 m. of the south wall is intact (both walls are in type 8 masonry) (MH i.219). The restored dimensions are 35 m. by 5 m. (MH i.220).

Religious space. A second temple (building h) was built in the *agora* proper (fig. II.4). It measures 20.3 m. by 7.65 m (MH i.227), and consists of *pronaos* and *naos* (each containing three columns (MH i.227-228).

⁹ Next to nothing is known of Megara Hyblaia's cults, although one can speculate somewhat from the better known cases of old Megara and Selinous (Manni 1975; C. Bérard 1983). Consequently, none of Megara Hyblaia's temples can be connected with particular cults (MH i.418-419).

HOUSE	BLOCK	NO. OF ROOMS	HOUSE SIZE (M. ²)	ASSOCIATED FEATURES	MH I REFERENCE
21,2	3	2	25.7 min. (renov. 21,1)	-	46-8,286
6,2a-b/ 7,2	4	2	10.6 min.	-	26-7,286
14,23	7	1	30.74	-	42-3,287
24,16a-b+33,12	13	2 min.	7.28 min.	bench, well	69-70,289
58,10+ 49,9	15	+1	+31.5 (renov. 58,8-9?)	-	125-6,140,290
63,2	17	3	38.16	-	151-2,293
58,17c	18	+1	+17.4 (renov. 58,17?)	-	142-3,295-6
58,16+ 64,10	18	1 min.	18 min.	-	141-2,294
13,7-9?	3	1 min.	26.6 min.	well	34
30,7-8+ 30,4+ 31,1?	6	?	?	-	77-8,195

TOTAL: 5(+2?) and 3 renovations

Table II.7: Megara Hyblaia's houses, second half of the seventh century (650-600 BC).

HOUSE	BLOCK	NO. OF ROOMS	HOUSE SIZE (M. ²)	ASSOCIATED FEATURES	MHI REFERENCE
3,7	1	1 min.	3.2 min.	-	21-3
38,8-9,11	8	2	23.2	well	101,288-9

TOTAL: 2

Table II.8: Megara Hyblaia's houses, seventh century (700-600 BC).

VII. 650-600 BC

Domestic space. Six, possibly eight, new houses and three renovated ones belong to this half-century (table II.7). The plan of several of these houses is poorly preserved, but where better known indicate that houses comprised between one and three rooms.

Religious space. Building 1, a temple, was built in block 17. The lower courses of the temple (in type 8 masonry) survive intact on three sides except the south; the structure measures 12.3 m. by 5.4 m. (MH i.239). The temple, oriented in an east-west manner, was constructed according to the layout of street B.

VIII. 700-600 BC

Domestic space. Two new houses are datable only to within a century (table II.8).

Religious space. Orsi (1921: 164-176) excavated in the north-west sector of the site what he thought were the remains of a temple ("tempio arcaico B"), measuring 20.7 m. by 8.6 m. Found in association with these remains were hundreds ("centinaia") of PC and C sherds (Orsi 1921: 171), but these are not mentioned as being tied in with any phases in the structure's building history (hence the present inclusion under the seventh century).¹⁰ In 1952 the French, excavating in the area, questioned Orsi's identification. They provisionally suggested that an enclosed altar once existed here, and that the architectural remains found by Orsi derive from a temple they themselves discovered some 20 m. to the south (*q.v.* section XII below; Villard & Vallet 1954: 16-20).

IX. 600-575 BC

Domestic space. In the sixth century new houses are a rarity around the *agora*, because of limitations on space. The few houses that exist largely show continuity in plan

¹⁰ Orsi (1921: 171) wanted to return in the following year to clarify the stratigraphy; however, he seems never again to have returned to the site.

DATE	HOUSE	BLOCK	NO. OF ROOMS	HOUSE SIZE (M. ²)	ASSOCIATED FEATURES	MH I REF.
600-575	13,3a-b	3	2	16.45 min.	-	34,317
575-550	22,3a+31,3b	6	2	32.19 min.	well	32,299
"	33,6a-b	13	2	33.6	well	84,300
550-525	22,3b	6	3	45.87 (renov. 22,3a+31,3b)	-	52,300
550-500	33,13-6?	16	3?	40.98	bench	85-6
"	33,27a-b+42,10c?	16	3	43.95	well	300-1
600-500	13,7-9	3	1 min.	26.52	well	34-5,303

TOTAL: 4(+2?) and 1 renovation

Table II.9: Megara Hyblaia's sixth-century houses.

(two to three rooms) and in the use of masonry styles 2 and 3, although there are two or three interesting exceptions (whose possible significance is fully discussed below in chapter IV).

One new house has been dated to the first quarter of the sixth century (table II.9).

Religious space. In the early sixth century the *agora* area received another temple (building c), located about 10.5 m. west of street C1 between streets A and B (fig. II.4) (MH i.204-206). A house (22,20) was demolished to make way for the temple, whose alignment followed street C2's orientation (MH i.205). The building, poorly preserved, has no internal divisions and measures c. 15 m. by c. 6 m. (though only one side is intact and part of another).

X. 575-550 BC

Domestic space. Two new houses are the only additions to the settlement pattern (table II.9).

XI. 550-525 BC¹¹

Domestic space. One house was renovated (table II.9).

Public space. It was during the latter part of this quarter-century period, c. 530, that another wave of monument-building occurred.

Buildings a and b are neighbours in block 6 just west of street C1, and are dated archaeologically to the same moment (fig. II.4) (MH i.196, 201, 236). The excavators have nicknamed building a, owing to its shape, the "*bâtiment coudé*." The south wing, with one partition wall, measures 13.15 m. by 7.15 m. and the north one, which is without any internal division, 9.7 m. by 6.9 m. (MH i.195). All walls were constructed in type 8

¹¹ No settlement evidence belongs to 600-550 BC.

masonry (except for the south wing's partition wall in type 3). Building a's precise function is unknown (*MH* i.196).

Building b is rectangular in shape (13.98 m. by 10.98 m.) (all walls were constructed in masonry type 8) (*MH* i.199) (pl. 10). The north half of the building consists of three rooms (a-c), all roughly equal in size (3.8-3.9 m. by 3.3 m.). The other half was a court. Building b has been identified as the *prytaneion* (*MH* i.202).¹²

Religious space. A second temple (building k) was erected in block 16 north of the *agora* (fig. II.4) (*MH* i.234-237). The building is a trapezoidal rectangle, with walls (constructed in masonry type 8) measuring 11.25 m. (north) by 8.4 m. (east) by 11.60 m. (south) by 8.7 m. (west) (*MH* i.235-236). The north-east corner of the building touched street D1, whose kerb had to be adjusted (*MH* i.235). The excavators admit that the religious function they have ascribed to building k is tenuous.

Other space. Just south of building j, on the corner of streets A and D1, is a two-room structure (42,3-4), tentatively interpreted by the excavators as "boutiques" connected with the nearby temple (*MH* i.232).

XII. 525-500 BC

The city wall was built in this period (Orsi & Cavallari 1890: 726-742; *MH* iii.97-100).¹³ The city wall originally stretched right around the site for over 3 km.: first towards the south-west, then to the south, and finally to the south-east (fig. II.2). A ditch, c. 1.75 m. deep, was dug in front of the wall. The wall itself, believed to have originally

¹² Hansen and Fischer-Hansen (1994: 33) have missed this example in their list of all the *prytaneia* known in the ancient Greek world.

¹³ Recent work, still to be properly published, seems to suggest a more complex picture for the evolution of this fortification system (Gras 1984-85: 804; Tréziny 1986a: 187-188). Generally speaking, Sicilian Greek cities were fortified with stone city walls in the second half of the sixth century (Karlsson 1989: 77-78).

stood to a height of 5 m. (Orsi & Cavallari 1890: 727), has two faces (a total of 2.8 m. wide) filled in with rubble and earth. The best preserved part (a 250 m. stretch near the modern road) has five semi-circular towers and a gate (Orsi & Cavallari 1890: 738) (pl. 11).

Within this city wall the French brought to light a temple, constructed around 510-483 (Villard & Vallet 1952: 25). The temple, oriented in an east-west direction, was not really rectangular in shape, measuring 13.71 m. (north) by 6.27 m. (east) by 14.03 m. (south) by 7.07 m. (west) (for a tentative reconstruction, see Villard & Vallet 1952: 35 fig. 18). Some parts of this temple had already been discovered by Orsi in excavations conducted close by (see section VIII above).

XIII. 550-500 BC

One and possibly one other new house can be dated to this half-century (table II.9).

XIV. 600-500 BC

Domestic space. Dating evidence is only sufficient enough to date the one house under this heading to within a century (table II.9).

Religious space. In the north-west corner of the city, Orsi (1921: 157-161) discovered the remains of a temple ("tempio arcaico A"). It measures 17.55 m. by 41.4 m. (the *naos* occupies 28.4 m. by 7.75 m.). The temple was of the hexastyle peripteral design with six columns by perhaps fifteen columns (Orsi 1921: 160). Very few architectural remains were found; the sherds retrieved allowed the following remarks on dating to be made: "...un tempio arcaico del sec. VI, se non anche della fine del VII..." (Orsi 1921: 161). No precise phases were apparently recognised. The temple's life would

seem to belong to the sixth century.¹⁴

XV. OTHER SETTLEMENT EVIDENCE

Excavations conducted in the north-east corner of the site revealed abundant architectural remains belonging to a temple (Villard & Vallet 1953: 28, 30-33). No plan could be retrieved. Solid reasons exist for never expecting to recover any such information, namely plundering (Vallet & Voza 1984: 26) and destruction of stone in ancient lime-kilns found *in situ* (Villard & Vallet 1953: 29). The archaic date of these architectural fragments can be established without much problem (one *sima* belongs to the second half of the sixth century, another to the early fifth century: Villard & Vallet 1953: 32). It is impossible, however, to use these various elements to date their accompanying structure without more secure links to stratified deposits.

Architectural evidence of two further temples were discovered by the French in the north-west part of the settlement (in *sondages* LXVIII-LXX: Villard & Vallet 1952: 38). One of the aims of the following year's excavations was to track down these temples (Villard & Vallet 1953: 10). The search was not successful, and attempts to locate the temples were immediately abandoned.

¹⁴ The foundations of an *in antis* "tempietto" of the sixth century have been found near the mouth of Mulinello river, located about 3 km. north of Megara Hyblaia (Gentili 1954c; cf. Vallet & Voza 1984: 40, fig. 12, no. 7). The temple will be discussed in chapter IV below in connection with the expansion of Megara Hyblaia, and is noted here to insert it into the building patterns of the *polis* centre.

Further Aspects of Settlement

Settlement Size and Settlement Process

The late sixth-century city wall encloses about 61 hectares (Orsi & Cavallari 1890: 694 & n. 3, 742; Gras 1984-85: 802; Vallet 1990: 18).¹⁵ The settlement attained this extent prior to the city wall's existence: before then cemeteries had been placed just beyond the settlement area proper, hemming in the world of the living.¹⁶ To all appearances, the entire area of the settlement was taken over in the eighth century. There are four indications to this effect. First, the eighth-century houses were widely distributed across the *agora* sample, with infilling occurring in later decades (fig. II.6). Second, the south plateau indicates the same pattern (the area so far excavated covers 1,000 m.²: Gras 1984-85: 802). Third, recent explorations in the L'Arenella depression (between the north and south plateaux) have revealed signs of eighth-century occupation (Vallet 1993: 464-465). Fourth, the French *sondages* in the north-west sector of the settlement uncovered abundant eighth-century pottery, though found without associated settlement remains (Villard & Vallet 1952: 11-12; 1953: 12) (the significance of this will be discussed shortly). It seems very likely, therefore, that the Megarians established themselves over much, if not all of the settlement area, which in time they more densely occupied.

¹⁵ This settlement size places Megara Hyblaia in what I would distinguish as medium-sized sites. The whole schematic framework is as follows: (i) under 10 hectares=small; (ii) small/medium=10-50 hectares; (iii) medium=50-80 hectares; (iv) medium/large=80-100 hectares; (v) large=over 100 hectares. Another example of a medium-sized settlement is Kasmenai at 60 hectares (Di Vita 1990: 350). Two small/medium sites are Akrai at 35 hectares (Coarelli & Torelli 1984: 291), and Naxos at 40 hectares (Martin et al. 1980b: 622). Selinous, at about 100 hectares in size (see ch. VII), belongs to my medium/large category, and Syracuse, Gela, and Akragas to the large category (Martin et al. 1980b: 486, 561, 663-687).

¹⁶ See generally Cébeillac-Gervasoni (1975: esp. 15, 17, 25). For the eighth-century tombs, found to the south of the settlement, see Cébeillac-Gervasoni (1976-77: 589-590).

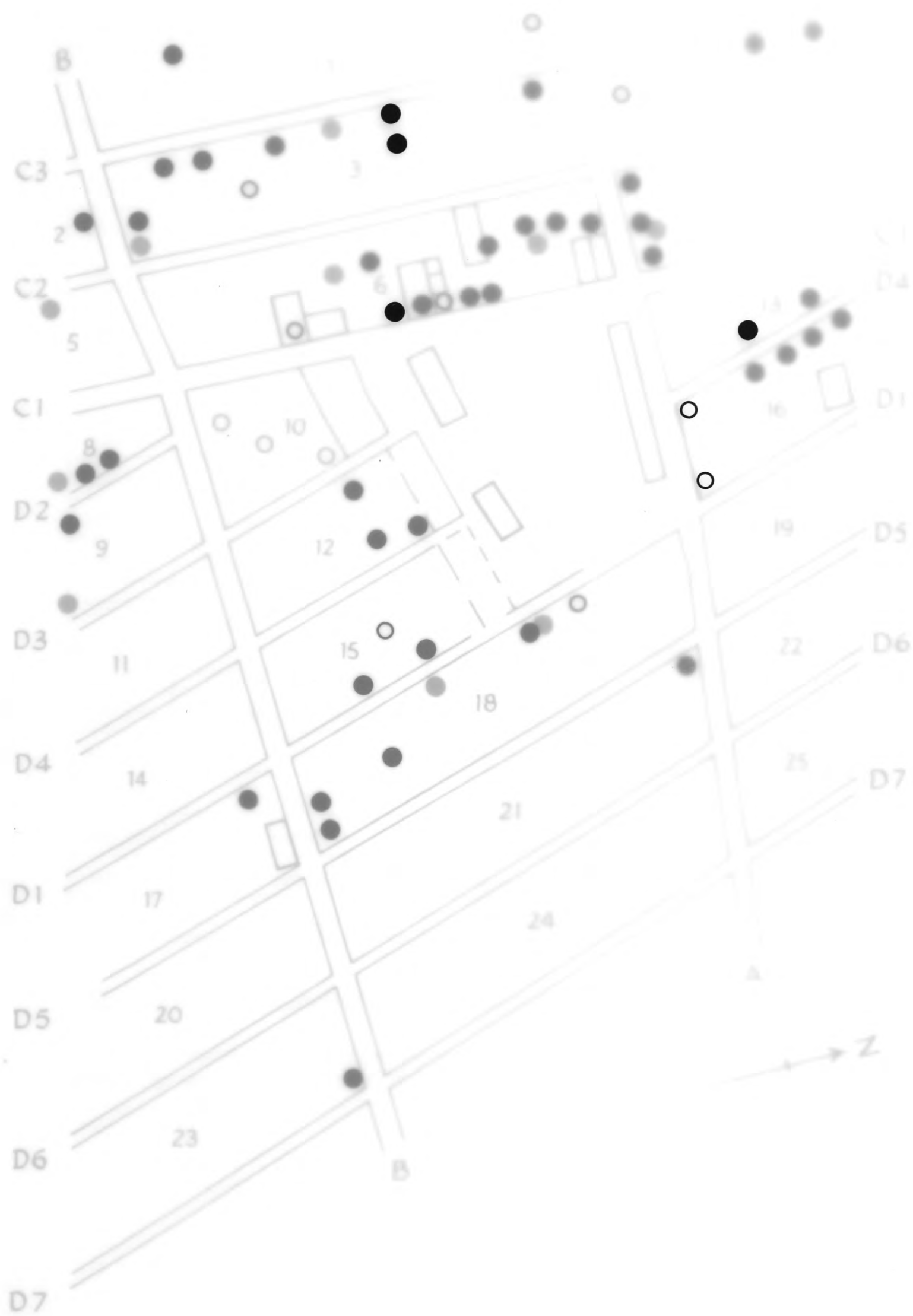


Fig. II.6. Housing density around the agora (an empty dot represents a possible house)

N.B. Base map=eighth-century houses, overlay 1=seventh-century houses, overlay 2=sixth-century houses.

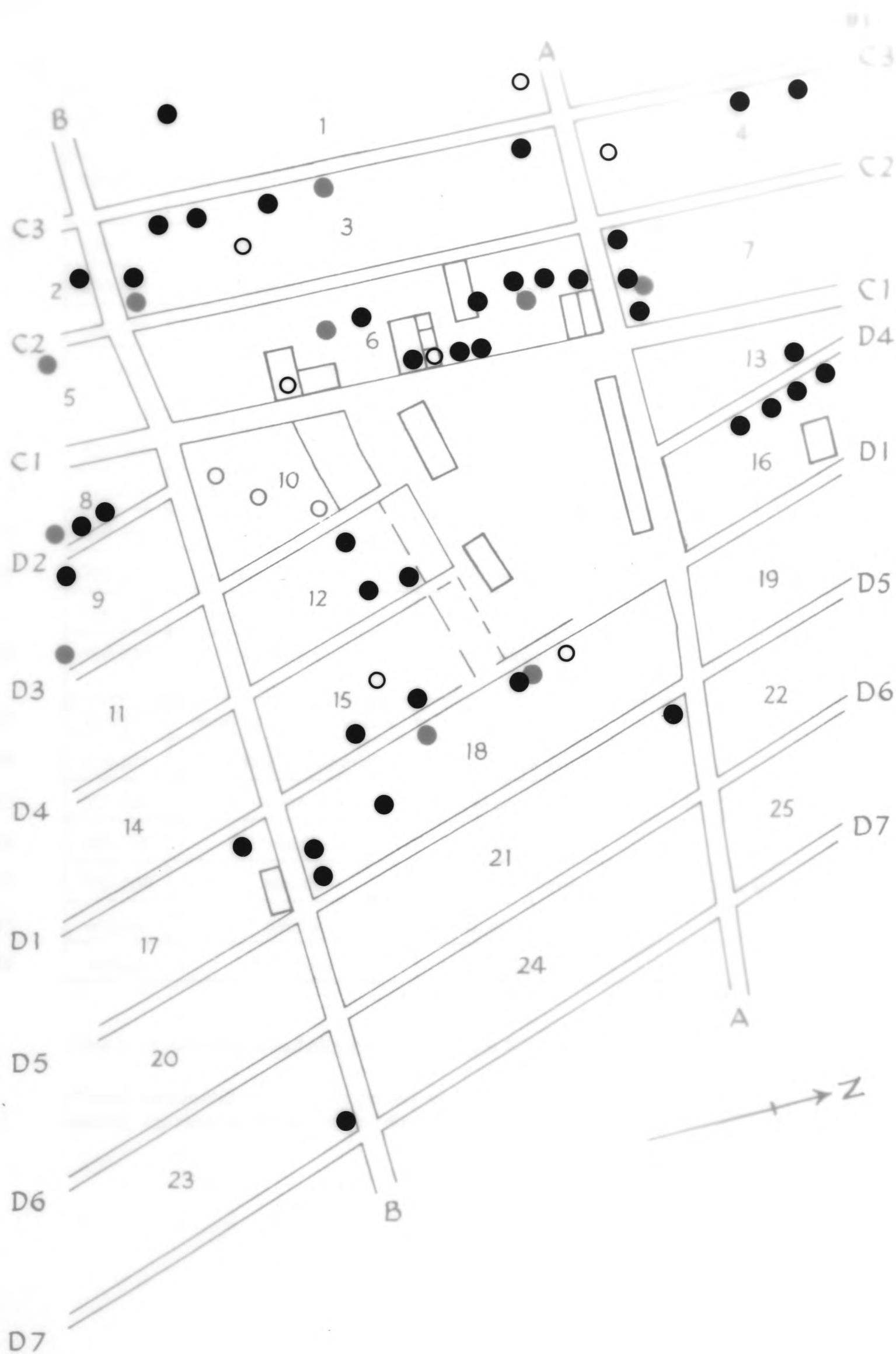


Fig. II.6. Housing density around the *agora* (an empty dot represents a possible house).

N.B. Base map=eighth-century houses; overlay 1=seventh-century houses; overlay 2=sixth-century houses.

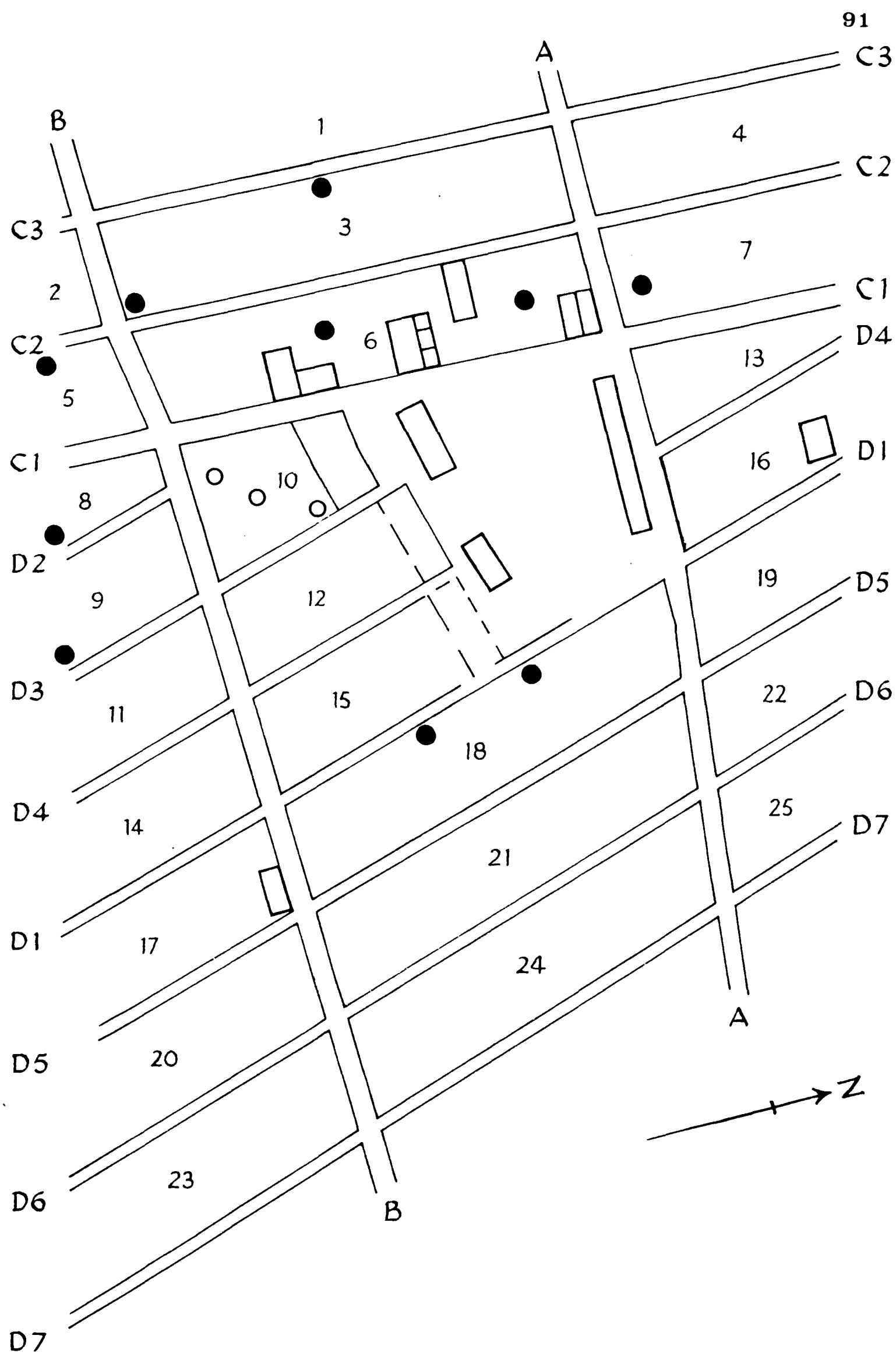


Fig. II.6. Housing density around the *agora* (an empty dot represents a possible house).

N.B. Base map=eighth-century houses; overlay 1=seventh-century houses; overlay 2=sixth-century houses.

	DATE	MONUMENT	LOCATION	DIMENSIONS (m.)	AREA (m. ²)
1	650-625	building i = <i>bouleuterion</i> ?	block 10	25.7 x 36.15 x 35.1 x 29.7	987.9
2	650-625	building d = <i>heroon</i>	block 6	12.8 x 9.65*	123.52
3	650-625	building e = <i>stoa</i>	<i>agora</i>	41.45 x 5.9	244.5
4	650-625	building g = temple	<i>agora</i>	c. 15 x c. 6.5	c. 97.5
5	650-625	building j = temple	block 16	9.6 x 4.2*	40.32
6	from 650	sacred area	L'Arenella	unpublished	-
7	625-600	building f = <i>stoa</i>	<i>agora</i>	35 x 5	175
8	625-600	building h = temple	<i>agora</i>	20.3 x 7.65	155.3
9	650-600	building l = temple	block 17	12.3 x 5.4	66.42
10	700-600	temple or altar	NW corner of site	20.7 x 8.6	178
11	600-575	building c = temple	block 6	15 x 6	90
12	550-525	building a = ?	block 6	13.15 x 7.15 + 9.7 x 6.9	161
13	550-525	building b = <i>prytaneion</i>	block 6	13.98 x 10.98	153.5
14	550-525	building k = temple?	block 16	11.6 x 8.7*	100.92
15	525-500	temple	NW corner of site	14.03 x 7.07*	99.2
16	600-500	temple	NW corner of site	17.55 x 41.4	726.8
17	600-500	temple	Mulinello river-mouth	21 x 10	210
18	archaic	temple	NE corner of site	?	?
19	archaic	2 temples	NE corner of site	?	?

Table II.10: Monument-building at archaic Megara Hyblaia.

(*Some monuments were not of perfect rectangular shape; in such cases, marked with an asterisk, the monument's two largest dimensions are given).

The pattern of Megara Hyblaia's monument-building calls for discussion. The absence of monuments until the mid-seventh century is a phenomenon that is widely paralleled in Sicily: other sufficiently well explored sites reveal a similar interval of usually two to three generations (Martin *et al.* 1980a: 247). When the monuments finally arrive in the third quarter of the seventh century, they appear in an intense flurry of building activity (table II.10). Five monuments are datable to this quarter-century, and two to the next; two more monuments and other major building can be more broadly dated to the second half of this century (see sections V, VI, and VII above). This wave of building was the largest ever seen at Megara Hyblaia, but it is wrong to regard it as a one-off thing, followed by a sort of "recessione" (so Gullini 1978a: 453). For in the sixth century, particularly the second half, at least seven additional, possibly more, monuments were built (see sections XI, XII, XIV and XV above). This hardly constitutes a "recessione."

The Use of Space

We must rely solely on archaeological evidence to get an idea of the use of space in the settlement. It must be stated from the outset that about one-twentieth of the intra-mural area has ever seen excavation, so that any extrapolations made once unknown ground is entered should, of necessity, be viewed as tentative. The goal is to establish how the intra-mural space roughly breaks down into its various uses. There are four settlement samples to consider; the most logical place to begin is with the *agora* sample, the largest and most detailed.¹⁷

All the streets combined take up 7,783 m.² (or 0.78 ha.) (table II.11). Although the width and excavated length of street C3 are unknown because of overlying hellenistic

¹⁷ It should be noted that the accuracy of all figures calculated in this section is spurious.

STREET	WIDTH (m.)	EXCAVATED LENGTH (m.)	AREA (m. ²)
A	5.3-6 (5.65)*	190	1,073.5
B	5.5-5.8 (5.65)	230	1,299.5
C1	5.4-5.8 (5.6)	200	1,120
C2	3	125	375
C3	3?*	125?	375
D1	3	170	510
D2	3	50	150
D3	3	110?	330
D4	3	160	480
D5	3	230	690
D6	3	230?	690
D7	3	230?	690

TOTAL: 7,783 m.²

Table II.11: The area occupied by streets in the *agora* sample (information extracted from *MH* i.351-365).

*Figures in parenthesis represent average width, used in calculating surface area.

**Figures with question marks are explained in the text.

fortifications, we may assume a similar surface area as for street C2. Street D3 is 3 m. wide; about 55 m. of it, to the north of street B, have been excavated; it may be assumed that the street continued for a similar length south of street B, producing an overall length of 110 m. Streets D5-7 are all 3 m. wide, but only in the case of D6 is a figure of excavated length given (over 230 m.). If we extend this length to streets D5 and D7, these streets will similarly each occupy 690 m.² To calculate the area occupied by the *agora*, we may divide the area into three triangles.¹⁸ This produces a result of 4,706.25 m.² The monuments surrounding the *agora*, buildings a-d and j-l, occupy at least some 735.68 m.² (calculated by adding together lines 2,5,9,11-14 of table II.10). The overall surface area taken up by the *agora* and its surrounding monuments comes to at least 5,441.93 m.², which, combined with the total area of the streets (7,783 m.²), produces a grand total of 13,224.93 m.² (or 1.32 ha.), out of the excavated sample of 2.25 hectares, taken up by public and religious use.

The north-west settlement sample is the next largest and detailed. Five religious structures, datable only to broad time-periods, are known from this corner of the site (see sections VIII, XII, XIV and XV), as well as various archaic (date?) walls, whose function is ill-defined because of minimal excavation (Villard & Vallet 1952: 10-11, 22-23). It also seems likely that cross-street B extended to as far as Orsi's "tempio arcaico B", for Orsi and Cavallari (1890: 726) had found part of a street which matches up in alignment with the one discovered by the French (*cf. MH* i.5). The remaining indication of space use points to an undeveloped intra-mural area. In 1950, in the extensive trenching aimed at

¹⁸ The first triangle takes the south side of building i in block 10 and the length of street C1 between cross-streets A and B as the figures to calculate part of the area. The remaining area may then be divided into two triangles by drawing a diagonal line from the corner of streets A-C1 across to the other edge, the middle of street D1 bordering block 18.

defining the extent of the Neolithic village discovered by Orsi, Villard and Vallet (1952:

19) remarked as follows:

Chose curieuse, dans toute cette zone, les tessons d'époque grecque--aussi bien d'âge archaïque que d'âge hellénistique--sont très rares. Il semble bien que, pour des raisons difficiles à préciser, cette région, qui s'étendait à l'ouest des deux temples reconnus par Orsi, n'ait pas été habitée par les colons grecs, bien qu'elle fût certainement comprise dans les limites de la cité.

They add in a footnote (Villard & Vallet 1952: 19 n. 2):

A titre d'hypothèse, on peut se demander si une vaste aire, libre de toute construction, ne s'étendait pas dans le voisinage de ces deux temples: faut-il y placer l'Agora?

The area in question, to judge from the accompanying plans, measures about 5,940 m.² (66 x 90 m.), or about 0.6 ha. That such large tracts of empty space were enclosed within the city wall may seem surprising,¹⁹ but it is an established fact that settlements, from ancient to modern times, could often include unbuilt-up land to be used for a variety of purposes (agricultural and refuge-areas being extremely common).²⁰ Villard and Vallet went on to prove their own hypothesis wrong, but the fact remains that open, unbuilt space existed at archaic Megara Hyblaia.

The remaining two samples have yielded evidence of religious use. For the structures in the north-east no plan of the temples suspected to have once existed there could be retrieved (see section XV above). The other area concerns the sacred precinct

¹⁹ Villard and Vallet seem a little surprised. Compare a recent remark: "Another agricultural resource of Athens that is rarely, if ever, mentioned was cultivable land within the city walls" (Foxhall 1993: 137).

²⁰ For the ancient Greek world, see Martin (1973a: 110) and Nenci (1979: 465-467); for the Roman world: Greene (1986: 80, 94-96); for the mediaeval world: Delano Smith (1979: 131); for a diachronic worldwide perspective: Fletcher (1986: 73-74).

reported from the L'Arenella summit (see section V above).

What can the four settlement samples tell us about the use of space at archaic Megara Hyblaia? The last three samples discussed demonstrate clearly that the city's religious monuments were not all concentrated around the *agora*. However, these same three samples cannot divulge the overall proportions occupied by the various space categories defined earlier. With the L'Arenella sample the material remains unpublished, and the other two share a common problem: namely, the evidence was uncovered with trial trenches; thus we have snippets of the settlement pattern separated by larger unexplored areas.²¹ As a result, that leaves us with the *agora* sample on which to base a picture. Can this justifiably be used to get some overall idea of the use of space elsewhere in the settlement? To this end the sample is not without its problems.

In the calculations made earlier, by the end of archaic Megara Hyblaia at least 1.32 hectares of the *agora* sample's 2.25 hectares were used for public and religious purposes; in its final appearance, therefore, almost 60% of the total area served non-domestic needs. But this proportion was not constant through time: for instance, the three possible eighth-century houses of block 10 later gave way to a public monument; similarly the building of the *prytaneion* (building b) in 550-525 destroyed a house built about a century earlier. There is also another question to bear in mind: do the proportions of space over time, as traced through archaeology, represent in any case reality? That is to say, the Megarians may have begun using certain areas of the settlement for specific purposes long before we are able to define them (a good possibility is the *heroon*, as C. Bérard [1983: 639]

²¹ A cautionary tale from the French excavations at Megara Hyblaia exists. Villard and Vallet (1954: 28) once concluded, on the basis of sporadic *sondages*, that the south plateau was uninhabited until c. 650. However, more systematic work there has produced abundant eighth-century material (Broise, Gras & Tréziny 1983; Gras 1984-85).

suggests). As we have seen, the observance of religious and public duties do not require stone edifices. What all this means, in other words, is that however precise we attempt to be, we may simply never be able to speak in other than general terms. Can the *agora* sample be taken as a fair representation of the sort of use of space that could be expected from the unexplored rest of the settlement? Does every 2.25 hectares plausibly contain 1.32 hectares of public and religious space? The answer is that the *agora* sample must certainly be somewhere close to the truth, especially since the little supporting evidence (from the other three settlement samples) we possess demonstrates that other parts of the settlement had monuments, streets, and large empty spaces as well. In view of the provisos pointed out, it seems legitimate to say that about 60% (or 36 hectares) of the archaic settlement consisted at any one time of non-domestic space, leaving 25 hectares for habitation.

CHAPTER III:
DEMOGRAPHY

Introduction

Demography in Greek Sicily: pitfalls and possibilities

Whatever the historical time-frame, demography involves the scientific study, via descriptive statistics,¹ of the size, structure, and development of human populations.² Historical demography divides into two branches: historical demography proper concentrates on examining written sources; palaeodemography focuses on material remains.³ In the classical world these three objects of demographic study usually break down into two different, though complementary lines of enquiry: population size is one, and structure and development the other (Parkin 1992: 4; Bagnall & Frier 1994: 31).⁴

Historical demography has great potential in Greek Sicily, yet that potential has still to be fully achieved. Consideration of the evidential basis and direction taken in the

¹ "In the end, demography without numbers is waffle, an amiable kind of social natural history" (Schofield & Coleman 1986: 4).

² For the definition, see Bagnall and Frier (1994: 31). Parkin (1992) intentionally ignores population size and redefines the study of demography for the ancient world. Such a narrow focus has serious limitations, as has been pointed out (Wiedemann 1993: 243; Lo Cascio 1994: 27 n. 22; Shaw 1994: 192). Even Bagnall and Frier, who in their opinion may have one of the best samples of demographic information up until the Renaissance (Bagnall & Frier 1994: 50), do not leave out discussion of population size (see Bagnall & Frier 1994: 53-57, 103-104).

³ See, e.g., Acsádi and Nemeskéri (1970: 51), S.F. Cook (1972: 1), Welinder (1979: 30-31), Schacht (1981: 120-122), Renfrew and Bahn (1991: ch. 11, *passim*), Mignon (1993: 244-249). Precise definition of the domain of historical demography is of importance here. Palaeodemography (or prehistoric demography) is concerned with two aspects of the archaeological record. One involves estimating population size and change (sometimes this subdivision is also referred to as demographic archaeology); the other deals with examining bones to determine, among other things, the sex, age, and pathological condition of the skeletal remains. Contrast Parkin (1992: 41) who seems to think that palaeodemography comprises solely the study of bones.

⁴ "Ideal historical demographers being non-existent, the work of historical demography has always been done, and will continue to be done, by specialists in only some of its skills" (Hollingsworth 1969: 13).

study of the island's archaeology and history will make obvious the pitfalls and possibilities in researching demographic matters. I begin with the question of studying demographic process.

"When studying mortality and length of life and, generally speaking, demographical processes over longer periods of time, no written historical sources are available as a rule" (Acsádi & Nemeskéri 1970: 51). Greek Sicily is no exception to this rule; there are no written sources for demographic reconstruction. Skeletal remains retrieved through excavation would seem to offer, at first glance, the hope of studying demographic process, but here too little help is to be found. It is the nature of archaeological research on the island--more than, in the first instance, the relative merits of the physical anthropological evidence--which acts as the obstacle, for a variety of reasons. Palaeodemography as a scientific discipline only emerged in the 1920s, and its techniques were first applied to Egyptian mummies and prehistoric material.⁵ However, only after World War II was palaeodemography being practised in any way in classical lands, with the results of this early work published in the following decade (Grmek 1989: 56). Sicily's place in these academic currents is clear:⁶ by the time palaeodemography developed as a field in the classical world (in the late 1940s), the great age of excavating

⁵ For these and following points regarding the general history of the field of palaeodemography, see Grmek (1989: 47-56).

⁶ A survey of the history and results of research conducted in the necropoleis of Greek Sicily is given by two of the island's most experienced excavators (cf. Pelagatti & Vallet 1980). See also Vallet's *intervento* in Grmek (1988: 45-48). All statements concerning the Sicilian situation are drawn from these sources. As will become evident further on in this chapter, the situation has not at all changed since the publication of these studies.

tombs in Sicily, initiated mostly by Orsi, who died in 1935, had long passed.⁷ For his time Orsi was exceptional in showing an interest in mortuary data beyond the beautiful objects contained in the graves, but none of his demographic observations measures up to today's rigorous methods, and this renders such inherited information unusable (Pelagatti & Vallet 1980: 358, 381). When archaeological exploration slowly resumed in Sicily after World War II, research aims had changed. The post-war generation of archaeologists in Sicily consciously concentrated on settlements, in order to balance out the top-heavy focus (on tombs and monumental architecture) of their predecessors. The French excavations at Megara Hyblaia were a prime example of that new trend.⁸

There is a second reason why skeletal remains have come to be so little studied in Sicily. Morris recently noted that

Classical archaeology generally lags behind prehistory in skeletal analysis. Even today it is not unknown for hundreds of skeletons to vanish after excavations, while associated vases are published in meticulous detail. Many fieldworkers seem unaware of the importance of this material for historians. (Morris 1992: 101)

The situation in Sicily with regard to skeletal analyses is no better than is generally the case in the classical archaeological community,⁹ and de la Genière's (1990) recent remarks

⁷ This interest in tombs stemmed from antiquarian desires for whole pots (Vallet in Grmek 1988: 45-46). While the antiquarian craze was in vogue, Sicilian archaeology was still in its infancy, and Orsi attempted to curb the tide of antiquarianism by investigating the tombs as scientifically as possible. The plunderings of tomb robbers also contributed to this early focus on necropoleis (Pelagatti & Vallet 1980: 364).

⁸ See Vallet's justification in Grmek (1988: 46-47). A further indication of the settlement-oriented course of study at Megara Hyblaia is the recent discovery of a new necropolis (Vallet 1992: 511).

⁹ It needs to be pointed out that part of the apparent widespread indifference to skeletal analyses must be ascribed to factors beyond the control of Sicilian archaeologists. In the post-war period, study

on the usefulness of carefully studying necropoleis from all angles suggest that it is a lot worse.¹⁰ Skeletal analyses are consequently very few.¹¹ Obtaining useful demographic information depends upon the collection and analysis of large samples (Grmek 1988: 49; Morris 1992: 71; Parkin 1992: 48), and this criterion the Sicilian material certainly does not satisfy.¹² The minute quantities of physical anthropological evidence are of course

of human remains was not possible. Emergency rescue operations brought about by industrialisation prevented the proper collection of skeletal remains, but above all limited financial resources allotted to archaeological research created the greatest barrier to the complete study of the archaeological record: "Gli scavi di emergenza effettuati nelle necropoli dopo la guerra si sono svolti in condizioni che non hanno permesso di salvare ed esaminare questi avanzi umani" (Pelagatti & Vallet 1980: 381). The resources available were focused on acquiring settlement evidence.

¹⁰ De la Genière's article is specifically addressed to scholars working in South Italy and Sicily. Information, old and new, on the necropoleis of South Italy and Sicily is now being systematically collected by the DANIMS project, begun by de la Genière and Nenci (1984). A questionnaire inquiring about all aspects of necropoleis is sent round to archaeologists. About twenty of these questionnaires have been completed and returned to the project co-ordinators: the relevant sections on anthropological analyses are very often left blank for lack of evidence.

¹¹ Pelagatti is the archaeologist responsible for encouraging the handful of skeletal studies. At Kamarina about seven hundred human skeletons, spanning some four centuries of past life, are said to have been retrieved for analysis, but only forty-seven of these have seen (brief) publication (Doro Garetto & Masali 1976-77: esp. 599-600 on the numbers quoted; cf. also Pelagatti 1976; Doro Garetto & Masali 1976). The most detailed report is that of eleven inhumations from Monte Casasia (Facchini & Brasili Gualandi 1980). Mention should also be made of a single eighth-century tomb at Naxos (Pelagatti 1980-81: 699-700).

¹² Given the smallness or incomplete publication of Sicilian skeletal samples, the physical anthropologists examining the material have correctly avoided advancing any conclusions regarding the variables of demographic process, such as the infant mortality rate or the average age of death (for the rigorous criteria of demographic utility of skeletal material, see Morris 1992: 72-91; Parkin 1992: 41-58). Two more general points need to be made about the skeletal evidence which exists. First, the studies were conducted twenty years ago; this is an important consideration in view of recent advances in physical anthropological methodology. For instance, the techniques of aging skeletons by the degree of fusion of the sutures of the cranial vault, which was used on the skeletal remains of Kamarina (Doro Garetto & Masali 1976: 53), is no longer regarded as an accurate measure (Renfrew & Bahn 1991: 375). Second, also outmoded is the validity of attaching racial labels to skeletal remains (Renfrew 1987: 4-5, 76-77); one of the intended aims with the Kamarina data is to investigate such a connection (Doro Garetto & Masali 1976-77: 600). Contrast Morris'

also closely associated in part with interest in the subject, and positive attitudes seem to be virtually non-existent.¹³ It could be said, therefore, that physical anthropology is still in its infancy in Sicily.¹⁴

By contrast, the study of settlements in Sicily has progressed remarkably since the end of World War II,¹⁵ and the best possibilities for the study of demography in Greek Sicily lie in this direction. But only certain demographic matters are capable of being illuminated by this class of evidence. The recent (unsuccessful) attempts by Gallant (1991: 16-17, 21-22) and Morris (1992: 196-197) to identify the family life cycle in the archaeological record are one such area. However, the best hope of extracting demographic meaning from settlement evidence is in connection with population size (*cf.*

(1992: 91) recent comment: "It is easy to distinguish major racial groups (e.g. Caucasian, Negroid, Mongoloid), but in classical archaeology that is rarely the issue."

¹³ Pelagatti's initiative in changing old attitudes has not gone very far; her successor as Superintendent of Antiquities for the province of Syracuse, Giuseppe Voza, was recently imprisoned for three months on the charge of professional misconduct, because he failed to retrieve, during the excavation of hellenistic tombs, the skeletal remains he found (I owe this information to Prof. R.J.A. Wilson). Elsewhere in Sicily, the same attitude prevails, as is illustrated by the glossy catalogue prepared for an international exhibition on the necropoleis of Akragas (AA.VV. 1988), in which the reader is bombarded with colour plate after colour plate of Greek vases, but nowhere is there a single word on any human remains found in association with these objects. There is in general little understanding of the usefulness of skeletal material: see the conversation Grmek (1988: 27) recounts having with the archaeologist in charge of the Lipari excavations.

¹⁴ The problems of preservation and interpretation encountered in Sicilian skeletal remains are no different from those found elsewhere. At Kamarina, for instance, the notorious difficulties in determining age and sex from cremations hindered firm conclusions (Doro Garetto & Masali 1976: 53, 59). Further remarks on the problems encountered in the South Italian and Sicilian material are made in de la Genière's (1990: *passim*) paper.

¹⁵ It would be misleading to give the impression that settlements were not studied before then: see, for example, Orsi's work at Megara Hyblaia mentioned in the preceding chapter. Some of the fruits of the post-World War II settlement research can be seen in Di Vita's (1990) synthesis.

Lo Cascio 1994: 40). This potential was recognised already over two decades ago by Asheri:

Nuove possibilità si sono aperte oggi grazie alla fotografia aerea ed ai sondaggi archeologici per un calcolo più preciso della popolazione di non poche città della Sicilia e Magna Grecia. (Asheri 1973: 459)

In the following decade, a practising archaeologist in Italy, in a paper reviewing the results of an international congress on Greek colonisation, expressed similar views, though with an added twist:

...je crois utile d'attirer l'attention des chercheurs qui travaillent en Grande-Grèce et en Sicile sur des analyses [sc. démographiques] de ce type. Paradoxalement, nous avons, en Occident, une documentation quantitativement plus abondante [than Old Greece's] qui n'a pas toujours été interprétée.... Le matériel accumulé par des décennies de fouilles peut être source de réflexions nouvelles et contribuer à faire progresser nos connaissances sur les sociétés coloniales de l'archaïsme. (Gras 1986: 20-21)

Not only do the abundant archaeological data receive comment, but Gras also felt the need to point out that archaeologists in Greece, working with even less evidence for demographic analyses, had already made notable gains. Gras reminded his colleagues that the Italian evidence was such that the exploration of new avenues could be carried out.¹⁶ A decade later Gras' plea remains unnoticed. It is possible that misconceptions and ignorance about the study of population size may have something to do with this.

¹⁶ One suspects that a similar growth in archaeological evidence is not just restricted to Italy: "The quantitative and qualitative leaps in archaeological research in the Mediterranean over the last thirty years have made possible the elaboration of approaches to ancient history..." (Purcell 1990: 30). The Megara Hyblaia excavations are a prime example of the general phenomenon to which Purcell drew attention.

Why Study Population Size?

"Population is either completely ignored or delegated [sic] to an insignificant position." (Marchese 1986: i)

It is commonly thought that discussions of population size generate numbers for themselves, constituting thus a time-wasting endeavour. The uses of these numbers also contribute to such negativity. Often population figures are cited by ancient historians, in antiquarian fashion, in general works without discussing the purpose to be played by this numerical information (*cf.* Lo Cascio 1994: 40). Yet considered in isolation population size has no meaning; it takes on significance only when placed in some sort of context (so, for example, Corvisier 1980: 175; Sallares 1991: 48). Responsibility for the frivolous uses of population numbers must be saddled upon the scholars who generated the numbers in the first place; their failure to make clear the positive benefits in generating such data have given the impression that the study of population size is a mere "numbers game", a quibble over sets of numbers. If some of the potential fruits that population estimates are capable of yielding were spelled out more often, accusations on their usefulness would lose ground.

There are several reasons why population size deserves study:

- When coupled with an idea of the natural environment's potential for food production, population size can indicate the degree to which a society could have supported itself from its own hinterland: for example, from overpopulation on Aegina (Figueira 1981: ch. 2) to underpopulation at Megara Hyblaia at the time of Selinous' foundation (De Angelis 1994).¹⁷
- When combined with demographic models to reveal probable age structure,

¹⁷ Compare the sort of conclusion that Purcell (1990: 50) is able to put forward on the basis of Figueira's study.

population size allows manpower resources to be determined, as Hansen (1986; 1988) has done for classical Athens.

- In the study of Greek colonisation, population size can help to establish the terms of the relationship between Greeks and natives (Gallo 1983: 703-705), and can generally act as a "préalable indispensable" in understanding acculturation (Gruzinski & Rouveret 1976: 174, in their important methodological study¹⁸).
- Population density and size are crucial to understanding palaeo-epidemiology (Grmek 1989: 95-99; Sallares 1991: 221-293) and aid in delineating the general conditions of human life in antiquity (Corvisier 1985).¹⁹
- The diachronic study of population size may reveal drastic fluctuations which then need to be explained (compare Corvisier 1980: 181-183). Were the fluctuations in question due to changes in demographic process (*i.e.*, fertility, mortality, or migration), or were they due to other changes (socio-political, economic, or environmental)?²⁰

¹⁸ See Morel's (1984: 153) remarks to this effect.

¹⁹ Even Parkin (1992: 11) admits the value of population density and size in these respects.

²⁰ Parkin's (1992: 4) contention that an absolute population estimate is "misleading and an oversimplification" because no population is ever static in size demands some discussion. This same criticism, equally applicable to model life tables, is then conveniently brushed aside when he pushes these model life tables as the way forward in ancient historical demography. If population size fluctuated, that change could only have been brought about by shifts in fertility, mortality, or migration, all of which demographic variables demographers group together as the components that are responsible for changes in population size (Barclay 1958: 2; Hollingsworth 1969: 15; Cox 1976: 2; Shryock, Siegel et al. 1976: 1, 218; Pollard, Yusuf & Pollard 1981: 2, 4; Newell 1988: 8). It must be remembered that all demography, including modern, is inevitably a snapshot at one given moment, producing no doubt an "oversimplification", but modern demography is not labelled as "misleading". Whether a population estimate misleads depends upon the purpose for which it is used. For historical implications of change in population size, see Hollingsworth (1969: 272, 326-329). To take one example, de Vries' (1984) work on modern European urbanisation drew important conclusions from changes in

Archaeologically-derived population estimates need to be studied for two practical reasons. On account of the sparseness of written sources for many periods (particularly the archaic) of Greek history, archaeological techniques for population estimation offer the only hope of rectifying the historiographical lacunae.²¹ Furthermore, we must be wary of the population sizes, often exaggerated, quoted in ancient written evidence (Parkin 1992: 59-65).²² In related fashion, modern population estimates, which are usually derived from these ancient sources, have sometimes been led astray by the ancient topos of equating prosperity and well-being with high levels of population.²³ In this connection Russell observed as follows:

The idea of a Golden Age in the past is very strong. This idea had hardly passed from vogue before the tremendous gains in population created another basis for presumption of great populations in the past. It must be a little difficult today for a citizen of a great city to visualize his city exerting an important influence in, let us say, the twelfth century [AD] with only a few thousand inhabitants. Much population history is local and subject to community patriotism which tends to exaggerate past greatness often unconsciously. (Russell 1958: 12)

The population estimates advanced by earlier generations of scholars have also

relative population sizes of different cities on the rank-size rule. From an archaeological perspective, compare the attempts of survey archaeologists to explain wide fluctuations in settlement numbers over time.

²¹ Literary sources indicate that manpower levels were a decisive factor in fourth-century history (see recently Austin 1994: 535-541; Purcell 1994: 385, 400). Population was undoubtedly of no less importance in earlier Greek history.

²² Compare Tréziny (1986b: 11) who notes that archaeologically-derived population estimates are almost always lower than those quoted in ancient written evidence.

²³ For fuller discussion of this matter, see chapter VIII below where the remarks are made in the context of Selinous' population size.

tended to acquire validity simply by being repeated (*cf.* de Vries 1984: 24). Past population estimates derived from ancient sources must be reconsidered in light of archaeological evidence, which allows the validity of the figures transmitted to be checked against a different yardstick. The study of population from this point of view would scarcely tarnish classical antiquity's golden image, simply because if we aspire to place the classical achievement in its proper human context, appreciation of this phenomenon might well deepen. In fact, would it not be more amazing to learn that an ancient city of a few thousand souls produced fine objects of art and literature?

There is the anthropological significance of population size. Sociologists and anthropologists have noted a relationship between settlement population and organisational complexity: the more people the greater the likelihood of society becoming progressively more complex (Naroll 1956; Ember 1963; Carneiro 1967; *cf.* also G.A. Johnson 1982: 389).²⁴ Such an equation has allowed prehistorians, for instance, to formulate an idea of the nature of the society with which they are dealing, thus furnishing much-needed indications otherwise unavailable.²⁵ As societies increase in size, there are two avenues down which they may proceed. Either they adapt their previous organisational structures to meet the new circumstances, or they split into smaller groups and avoid any such changes. For

²⁴ This relationship is now universally agreed upon by the anthropological community; the last two decades have witnessed no changes in the basic tenets of the relationship (see Cohen 1994: 273, 283). *Cf.* also Sallares (1991: 99).

²⁵ Although we are not concerned with prehistory *sensu stricto*, we would do well to treat much of archaic, and indeed later, Greek history as such, or more properly speaking as protohistory, on account of the darkness that reigns over a good part of these periods in various parts of the ancient Greek world, instead of deluding ourselves into believing that we are dealing with a fully historic period.

the latter it may be a conscious or subconscious desire to split into smaller groups; whatever the case these groups fragment. For the groups remaining together, however, social change is a matter of course (Carneiro 1967: 239). But what sort of structural changes occur when certain population levels have once been attained?

Data derived from cross-cultural sources would suggest the following crucial turning-points. At population levels not exceeding 100 to 150 people communities are without structural differentiation ("simple egalitarian societies" in Fried's words); social order is maintained by the household as well as by bonds of affinity and reciprocal assistance (Fried 1967: chs. 2 and 3; Forge 1972: 371-372). Social structure begins to transform when numbers increase to 150 to 350 people (Forge 1972: 371, 374-375). In this instance it becomes clear that no one individual can know on a truly personal basis all other members of the community; in consequence of population growth society loses its face-to-face trait. Sub-groups, which regulate the exposure of individuals to a wider audience, emerge above the household level. Groups of 350 to 500 people move one step beyond the latter stage. There are still no established offices at this level, so any rank obtained is not through ascribed status but by one's own efforts; customarily, moreover, social stratification does not emerge with such numbers (Fried 1967: ch. 4). When settlements surpass 500 people, authoritative officials are needed (Naroll 1956: 690; Carneiro 1967; Trigger 1974: 97). One of the most notable transformations is the emergence of permanent social and economic stratification characteristic of peasant societies (for which see C.A. Smith 1976), which takes root once these numbers have been reached, though the material differences

between the two strata may be minor at first (Layton 1972: 379 with n. 12; Forge 1972: 374-375; see also Cancian 1976: 229-231). Therefore, unless communities splinter into smaller groups, population increases cause them to undergo social change, with the communities involved probably even unaware that such transformations are afoot. These alterations are accompanied by a concomitant intensification in complexity; thus as population grows so, too, does a group's socio-political and economic organisation.²⁶

This basic outline of some of the positive reasons for studying population size, albeit generalised and not always formulated with the Greek *polis* specifically in mind, should make the benefits clear. Population estimates, however crude, assist in defining the sorts of social, political, and economic features and relationships which may reasonably be ascribed to any given society.²⁷ The ancient Greeks themselves recognised the effects of population size. The writer of the Hippocratic *peri diaites* (i.25) connects power with human resources, and in a similar vein Aristotle (*Politics* 1320a17) noted that the larger the population the greater the chances of democratic government. On an economic level, Xenophon (*Kyropaideia* viii.2.5) is clear on the fact that not a lot of division of labour exists in a small *polis*; he recognised that low population levels could simply not support a complex mode of economic organisation. These three examples should serve as a reminder that the effects population levels may have were also perceived

²⁶ The inverse of this is that with low levels of population the economic surplus which is needed to support a complex division of labour and specialist craftsmen cannot be produced (Sallares 1991: 65).

²⁷ It is little wonder, therefore, that the study of population size is recommended by those scholars interested in formulating the variables needed to understand the nature of Greek statehood (e.g., Doxiadis 1972; Ruschenbusch 1978, 1983, 1984, 1985; Corvisier 1980: 175; Finley 1981: 22; Gehrke 1986; Snodgrass 1993). The present focus on population size has largely been motivated by this recommendation.

in ancient times;²⁸ these ramifications are not merely constructs or figments of the imagination of modern-day scholars. Population size was a phenomenon that permeated society at all levels then as well; questions of population have a significant role in the study of the Greek state. As Brunt (1971: 3) stated in his mammoth monograph on (later Republican and early Imperial) Roman population, "What does a statement about the Romans *mean*, if we do not know roughly how many there were?" *Mutatis mutandis*, this statement could easily be extended to encompass any epoch of human history.

Excursus: "A Tale of Two Editions"

Before turning directly to methodology, a very recent anecdote illustrating the importance of estimating population size must be related to round out the previous discussion.

Ridgway (1984) presented a concise survey of the important excavations at Pithekoussai. After analysing Euboian activity in the Mediterranean and the site of Pithekoussai itself, his discussion turns to the graves excavated, and then to the implications of this fresh evidence for the history of central Italy and the Mediterranean at large. The estimate made of the population of Pithekoussai (1,500 to 2,500) based on cemetery size (Ridgway 1984: 64) seems to be pulled out of a hat to fit with preconceived ideas of what "feels right" for this site and period of history. Ridgway (1992) presented a significantly different picture with regard to population. The intervening eight years between editions saw the publication of Morris' (1987) thought-provoking book on early Athenian cemeteries, a work both rigorous in method and very much aware of broader archaeological issues. In a short space of time Morris' work had become so fundamental

²⁸ For further discussion of these ancient testimonia, see Sallares (1991: 72, 99) on the Hippokratic and Aristotelian passages, and Pounds (1969: 144) on Xenophon.

that anyone discussing graves simply could not ignore it; Ridgway, in considering bibliography which had appeared since 1984, accordingly dedicated some attention to determining, from his own burial evidence, the population of Pithekoussai using Morris' procedures. The results, to say the least, are astounding. Although only 493 Geometric graves were excavated at Pithekoussai, the excavators could establish with a high degree of certainty the maximum size of the cemetery and thus, by extension, the probable number of people interred in the fifty years of the life of Euboian Pithekoussai. Without getting into precise details (see Ridgway 1992: 101-103), a population estimate of 5,000 to 10,000 is arrived at by Morris' method. This population estimate has important implications for the nature and organisation of Pithekoussai; Ridgway (1984) had already underlined on various other grounds the complexity and importance of Pithekoussan society, but the new population estimate furnishes an added element to the interpretation of Pithekoussai not seen in the first edition.

Some Additional Methodological Considerations

The sparse written record of archaic Megara Hyblaia contains no information relevant to calculating population levels. Faced with such a complete blank in this respect, we must turn to the only other viable alternative, namely archaeology, to help to fill in this lacuna. Of the five methods so far developed by palaeodemographers for estimating population size, three are more likely to be potentially employable in a classical context, depending on the quantity and quality of the evidence available; two of these methods involve settlement data and the other cemetery size and interred population.²⁹ The guiding

²⁹ The two remaining methods unfortunately cannot be used in classical archaeology. In other fields of archaeology, food residues and artefacts have been utilised, with varying degrees of success, largely because projects of research were initiated with a view, among other things, to extracting demographic meaning from these

principles behind these three methods will now be briefly discussed.³⁰

The analysis of domestic space is the most reliable method of estimating population size: "Assessments of occupied floor area are potentially the most accurate means of achieving population figures" (Renfrew & Bahn 1991: 399).³¹ The basic procedure is to multiply the number of domestic areas by the family structure. Prehistorians often have difficulties in defining family structure, whether nuclear, extended, and so on (S.F. Cook 1972: 13), but in dealing with a literate period we are not completely in the dark in this respect (see below). If all the domestic units have been excavated, then an overall figure for population size is readily obtainable. More often than not, however, only part of a site will have been explored. With only portions of a settlement excavated, one may calculate population size by moving from what is known to the bigger picture. Of the settlement's total area, only some of it was given over to domestic use, and this proportion needs to be determined: analysis of the excavated sample will give a good idea of the sort of use of space which could be expected for the

sources (*cf.* S.F. Cook 1972: 7-12; Schacht 1981: 123-124). Until such concerns begin to occupy a more prominent place in classical archaeological research, any attempt to go ahead with these two methods will be hampered by inadequate data. The five methods developed by palaeodemographers could ideally become procedures common to archaeology as a whole. It should be noted that the attempts to estimate the size of classical populations from other forms of archaeological evidence, such as theatre seating capacity and water supply, have not been successful, since it is uncertain whether the result really indicates total size (Wilson 1990: 171; Alcock 1993: 96-97; Lo Cascio 1994: 27).

³⁰ These methodological considerations are intended not only to make up for the absence of any discussion of such techniques in Parkin's (1992) book, but also to set down the basis for the population estimates to be made in this and the later chapter on Selinous' population size. Moreover, the methodology of this chapter could also be a first step in developing the new techniques, called for in the past (e.g., Lepore 1968: 36), required to replace Beloch's (1886) classic work on population size, which stands in need of revision (on which subject, see now Lo Cascio [1994]).

³¹ For extended discussion of the procedure, see S.F. Cook (1972: 12-18), Hassan (1981: 63-82), and Schacht (1981: 124-131).

whole settlement. It must be borne in mind that even a rough calculation of domestic space is still a rather simplified picture, particularly because not every part of the site would necessarily have been in active use at the same time (*cf.* Ascher 1968; Fletcher 1981; Cameron & Tomka 1993: esp. parts IV and V). Afterwards the estimated population size of the excavated area is extended to the remaining, unexcavated parts of the site. Although caution is in order with such extrapolations (*cf.* Wilson 1990: 171), such a procedure can yield a figure for total population size.

The second way to estimate population size is similar to the technique just described: the sole difference being the availability of data which are as detailed as those used in the previous technique. This second technique involves using area/people densities, that is, the area of settlement in hectares multiplied by the density of people per hectare (S.F. Cook 1972: 18-20; Schacht 1981: 128-131; Postgate 1994; for a recent example, see Jameson *et al.* 1994: 549-554). There are two steps in such calculations. The first is to calculate the proportion of domestic space in the settlement. If only the general extent of the settlement can be defined, with the proportion of domestic space within it unknown, one can still proceed to estimate population, though to do so makes the nature of the argument more hypothetical.

The second step is to determine the number of people per hectare. There are numerous instances in classical lands where for a variety of possible reasons (most notably: dense continuous habitation since antiquity) we cannot at all calculate how many people dwelt on a hectare of land. But even in the absence of detailed data more tentative densities may be used. In a now classic study based on cross-cultural information, Naroll (1962) suggested a figure of 10 m.² of floor space per person as a basic human minimum. This proposition has been much debated in the literature (*e.g.*, Leblanc 1971; Wiessner

1974; Casselberry 1974; Read 1978): clearly, Naroll's figure cannot be adopted without hesitation;³² his work is no more than a useful starting-point for research, especially since, as Fletcher (1981) has emphasised, different societies have different levels of tolerance when it comes to area/people densities. At the very least Naroll's work has shown that attempts have been made to generalise about settlement population.

The evidence from the classical world appears to be consistent enough to make similar generalisations. Russell's (1958: 59-68) collection of archaeological and historical evidence reveals that classical and mediaeval cities usually fall somewhere in the range of 100 to 200 people per hectare, though very often in the lower end of this range.³³ Excavations in classical lands since then have offered evidence which seems to confirm the 100-200 people per hectare range noted by Russell.³⁴ So, even without a site's own particular density of people per hectare, population may be estimated by multiplying the area of (preferably domestic) settlement by the 100 to 200 people per hectare range. Estimates so calculated can only be viewed as working hypotheses (Postgate 1994: 51), but they nevertheless yield insightful quantifications of the general order of population (*cf.* the interesting results of, for instance, Pounds 1969: 142-143 and Morris 1991: 33-34).

The third and final method of population estimation is based on cemetery populations. Two conditions must be fully satisfied before this method can be legitimately

³² In re-examining "Naroll's constant" Brown (1987) has arrived at a lower figure of 6 m.² (*cf.* Ember & Ember 1995: 98-99).

³³ Many of the instances on which Russell based this conclusion derive from excavation of residential quarters; included among these are such classical city-sites as Olynthos, Dura-Europos, and Ostia.

³⁴ See, for example, Corvisier (1980: 173) on Thasos and some sites in northern Greece; Spivey and Stoddart (1990: 61) for Acquarossa in Etruria; Wilson (1990: 171) for Roman Sicily. Compare Bagnall and Frier (1994: 54-55) on the multi-storey densities in Roman Egypt, and the suggested densities from Megara Hyblaia below. It seems safe to conclude that the outlines of probable density ranges have emerged.

employed. The size and chronology of *all* cemeteries need to be known, in order to obtain some idea of the number of dead. If this first condition can be met, it is then necessary to ascertain whether the complete spectrum of society is represented amongst the cemetery population. Ever since Morris' (1987) study of early Athenian cemeteries, there has been greater awareness of the possible distorting factors that could have gone into the make-up of the burial group already in ancient times, let alone the problems connected with archaeological research.³⁵ If the cemetery data satisfy the two requisite conditions, then the following formula may be used to estimate population size:

$$p = \frac{1,000}{(dt/n)}$$

where p is the size of the burying group; d is the annual death-rate (30 is a commonly used figure); t is the period covered by the accumulation of the dead; and n is the total number of burials (formula with discussion in: Morris 1987: 74).³⁶

One final point needs to be addressed before bringing this section on methodology to a close. In the sphere of population estimates it must be said that every project of research is in some way unique, so it is impossible to lay down principles accounting for every possible peculiarity which may be encountered in the various fields of archaeology.

³⁵ Whatever we may think of the conclusions Morris builds on his observation (for a different reconstruction, see Humphreys 1990), he has succeeded in drawing attention to this phenomenon, which had been recognised long ago by historians and archaeologists elsewhere (see, e.g., the study of modern France cited by Hopkins 1966: 262; and from an archaeological viewpoint: S.F. Cook 1972: 5). For instance, it was not so long ago that so prominent a figure in early Greek demography as Snodgrass (1977: 10-18; 1980a: 23-24; 1983a) used tomb groups for population estimates without taking the matter of representativeness of the original burial group into consideration. Note his more recent caution in this respect: "If the extant burials were not, at all periods, equally representative of both sexes, of all age-groups, and of all levels of society, then the count of graves is not a reliable indicator of the population of the settlement" (Snodgrass 1991: 15).

³⁶ For an example of calculating population size from cemetery data, see the example of Pithekoussai cited earlier (Ridgway 1992: 101-103). Morris (1987: 74) also gives a second formula for cemeteries under-represented by sub-adults.

However, there is one facet of palaeodemographic work which is unquestioned common ground. According to Trigger (1984b: 378), one of the main responsibilities in producing population estimates should involve that

...all of the assumptions entering into a population estimate be spelled out in detail and [this] permits each variable to be corrected individually as more accurate information becomes available. Instead of misleading the reader by giving a spurious impression of precision, this approach reveals the weakness of individual arguments.

In other words, the formulation of population estimates is an ongoing process.

The Size of Megara Hyblaia's Population

Previous Discussions

Late nineteenth-century interest in ancient Sicilian population overlooked Megara Hyblaia. The omission was not a result of scholarly sloppiness, but was probably a consequence of the lack of ancient literary sources (which acted as the foundation on which a population estimate was based), and of the unimpressive archaeological remains, which failed to attract the attention of scholars. It was not until Orsi became interested in the site that the question of population size was broached. In their joint monograph on Megara Hyblaia, Orsi and Cavallari (1890: 694 and n. 3, 742) initiated discussion of the subject as a result of their own investigations. A major discrepancy, however, exists between the numbers put forth by Orsi (1890: 694 and n. 3) in his historical introduction and by Cavallari (1890: 742) towards the conclusion of his discussion of topography. Orsi, basing his arguments on Beloch's calculation for Gela, where for an intra-mural area of 200 hectares the ancient literary sources could be made to suggest a population of 30,000 people, reasoned that since Megara Hyblaia's intra-mural area was less than one-

third that of Gela it correspondingly had a population of around 8,000 people. Cavallari, on the other hand, simply stated for reasons unknown that 18,000 to 20,000 people lived within the walls of Megara Hyblaia. No explanation for this notable discrepancy between population estimates ever appeared in this or any other publication, and we may thus presume that it was due to nothing more than a difference of opinion, a liberty no doubt allowed to each scholar responsible for the writing of the monograph's individual sections. Since Orsi and Cavallari's treatment, however, the subject has seen no progress down to, in fact, the present day.³⁷

Despite the great opportunities offered by many years of excavation at Megara Hyblaia, the French excavators have refused to venture any population estimates. This reticence is very clear in their final publication (*MH i*) of the archaic settlement remains, especially in the concluding chapter, where they re-evaluate Megara Hyblaia's history in light of this fresh evidence. In a footnote (*MH i*.412 n. 1) the excavators mention Orsi's (1890: 694 and n. 3) estimate of 8,000, though without giving any assessment of the validity of this figure. The only other references to population are warnings that such calculations are impossible (*MH i*.411-412; cf. Gras 1985: 396 n. 10). There the discussion has remained to this day, but in the interim the ungrounded restraint of the French excavators has drawn the disapproval of several notable scholars.³⁸ Chief amongst the critics is Morel who, in his overview of the state of Greek colonial studies in Italy,

³⁷ Dunbabin (1948: 454), who here and there showed an interest in demographic matters, did not pick up on the variance between Orsi and Cavallari's estimates for Megara Hyblaia. He simply cites Cavallari's figure of 18,000 to 20,000 as being that formulated by Orsi himself.

³⁸ One demographically-minded reviewer of the volume containing the archaic settlement remains has pointed out the opportunities the excavators missed in not making population estimates (Asheri 1978: 400).

made some strong remarks in connection with a more general point, that the study of settlements was not being carried out to its fullest potential. Morel's words deserve quotation *in extenso*:

As regards the study of settlements numerous problems are in suspense. Let me cite three.... On the other hand, demography. Even in an exceptionally favorable case such as Megara Hyblaea where the excavations and researches have been conducted in an outstanding manner the specialists prefer not to draw conclusions: "Any calculation, however approximate it may be, is impossible here" [citing *MH* i.411]. There is no better way than this phrase to underline the backwardness of this discipline in regard to antiquity in the interpretation of the raw data which exist in a particularly acute form. (Morel 1984: 140)

Morel's "very important article" (Purcell 1990: 33 n. 7) has since its publication had a hand in directing the course of study (the recent example is Snodgrass 1994: 1) and his view deserves to be taken seriously. In what follows the aim is to consider afresh the question of Megara Hyblaia's population size, and to obtain an order of magnitude of maximum population.³⁹ To achieve that goal, we must proceed with a step-by-step analysis of the settlement evidence.

I. POPULATION BY SETTLEMENT EVIDENCE

In the theoretical methodological discussion above, the two ways to estimate population size from settlement evidence were described. The evidential basis for archaic Megara Hyblaia places it firmly in the category of the first technique: that is, the settlement evidence, deriving from a partially excavated site, contains domestic units. From the palaeodemographic viewpoint, what makes this domestic settlement evidence

³⁹ To compensate for a lack of statistical evidence Purcell (1990: 37) has suggested that the "technique of hypothetical quantification", which allows the "limits of the possible" to be determined, be adopted, since "[i]t is essential to call the spectrum into existence...."

outstanding for population estimation is the large number of well-preserved units in this sample. In addition, the houses are chronologically clearly defined and most importantly span virtually all of Megara Hyblaia's archaic history, allowing us in consequence to trace the development of population in ways often not possible at other classical sites. As Morel, quoted earlier, pointed out, the conditions at Megara Hyblaia are "exceptionally favorable" for estimating population size. One of the prime aims of the previous chapter was to discuss in detail the usage of space at Megara Hyblaia, with special emphasis in that discussion placed on the number and size of the houses in the various periods.⁴⁰ Can the number of houses be now translated into a population figure? What sort of family structure existed at archaic Megara Hyblaia?

The normal view, supported by recent research, is that the ancient Greek family consisted of four to six members in a nuclear arrangement (Gallant 1991: 23; Sallares 1991: 129-160). The evidence for this pattern is based on sources which deal with the cities of the Greek mainland, and it must be stressed that any extension of this information to other situations is no more than a possibility, albeit a rather good one. With this proviso in mind, the nuclear family is here assumed. It is salutary, furthermore, to consider another issue before assigning absolute numbers to the nuclear family structure, namely that family size changed over the course of time. Gallant's (1991: 27-30) family reconstruction allows an average of four members to be postulated,⁴¹ and on that basis the total number at any one time may be judged. The unique circumstances of the colonial

⁴⁰ It should be noted that two-storey houses are unknown at archaic Megara Hyblaia (this is generally the case in Greek Sicily; see the convenient summaries of Martin & Vallet 1980 and De Miro 1980).

⁴¹ This same conclusion is reached by, for instance, Parkin (1992: 112) and Bagnall and Frier (1994: 67-68) for the average size of the Roman family.

DATE	NUMBER OF HOUSES	NUMBER OF POSSIBLE HOUSES	ESTIMATED POPULATION/UNIT	TOTAL ESTIMATED POPULATION
1. 725-700	11	3	2	22 (+6)*
2. 700-675	3 + 2 renovations	nil	4 (2 per renovation)	16 (+0)
3. 675-650	5	nil	4	20 (+0)
4. 700-650	9 + 2 renovations	4	4 (2 per renovation)	40 (+16)
5. 650-625	1 + 1 renovation	1	4 (2 per renovation)	6 (+4)
6. 625-600	12	nil	4	48 (+0)
7. 650-600	5 + 3 renovations	2	4 (2 per renovation)	26 (+8)
8. 700-600	2	nil	4	8 (+0)
9. 600-575	1	nil	4	4 (+0)
10. 575-550	2	nil	4	8 (+0)
11. 550-525**	1 renovation	nil	2 for renovation	2 (+0)
12. 550-500	nil	2	4	0 (+4)
13. 600-500	1	nil	4	4 (+0)
TOTALS:	52+9 renovations	12	-	204(+38)

Table III.1: The number, by period, of archaic houses at Megara Hyblaia and their estimated population. (*Number in parenthesis obtained by columns three and four to arrive at a potential population. **No domestic settlement evidence is datable to the 600-550 and 525-500 periods.)

world call for discussion of one last matter concerning family size. In the case of first-generation colonists, we cannot assume, as the excavators of Megara Hyblaia also clearly had in mind (*MH* i.410; iii.17), the nuclear family to have been operative. Accordingly, the average nuclear family structure of four will be halved only for the eighth-century houses of the first generation. Assuming a family structure of two people obviously glosses over the exceptions that probably existed, but that is the nature of population estimates. We may now proceed to combine house and family numbers.

The eleven (possibly fourteen) eighth-century houses are on the whole consistent in size, with measurements varying between 4 and 4.5 m. per side. Two people are assigned to each of the eighth-century houses; on this reckoning, the excavated area of Megara Hyblaia would have had a population of 22 to 28 people during this period (table III.1).

House-building in the seventh and sixth centuries could follow one of three patterns. The first pattern consists of eighth-century houses (*e.g.*, 22,5 and 23,10) which underwent renovation in the decades after their original construction, with an additional room, sometimes more, built alongside the older one. The second pattern comprises seventh- and sixth-century houses which also experienced substantial renovations in later years, whilst the third pattern involves houses built in the seventh and sixth centuries and never again modified. All the new houses of seventh- and sixth-century date could consist of anywhere from one to four rooms (two or three rooms is quite common), covering a surface area between roughly 20 and 80 m.² Four people are assigned to each of the houses built in the seventh and sixth centuries; two more people are added on to the population of those houses, including the ones originally constructed in the late eighth

Population Trends

Excavated Area, Megara Hyblaia

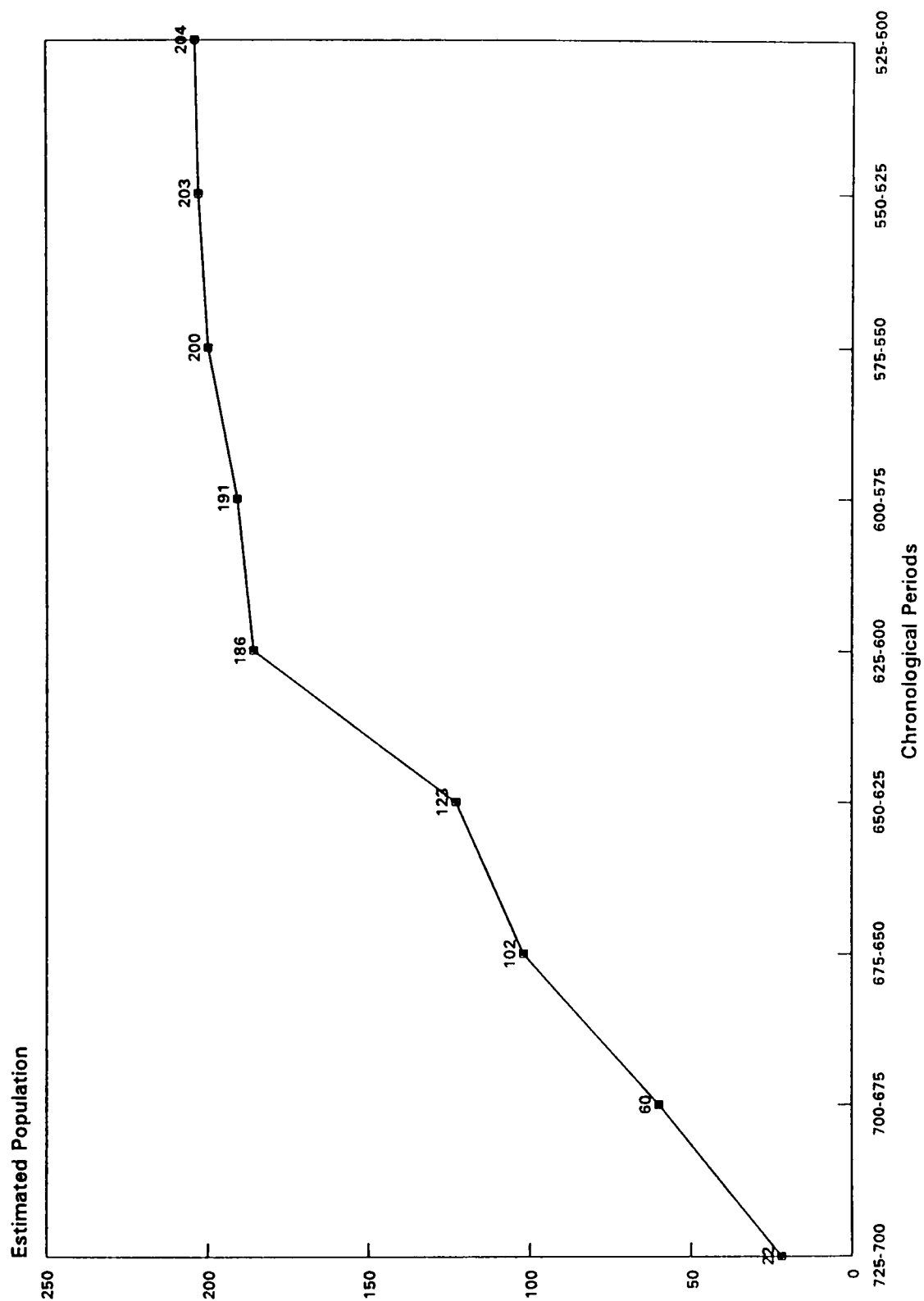


Fig. III.1. The population trends of the excavated area of archaic Megara Hyblaia.

century, which were enlarged with new rooms (the renovations of table III.1).⁴²

The results of the procedure just outlined are presented in tabular form (table III.1). By the end of the sixth century the sample excavated seems to reveal a population of 204, possibly 242, people for the excavated area.⁴³ In the matter of population trends, lines 4, 7, 8, and 13 of the table, the longer periods of time (so defined because of insufficient precise chronological clues retrieved in excavation), are worked into the quarter-century phases in the following way. The 40 people of line 4 (700-650) were evenly distributed (*i.e.*, 20 each) to the two quarter-century phases within this fifty-year period. The same is done with the 26 people of line 7 (650-600), though in this case, of course, 13 people were assigned to each of the two quarter-century phases encompassed by this last fifty-year period. Then the 8 people of line 8 (700-600) were also evenly distributed (thus 2 each) to all four of the quarter-century phases within this one-hundred-year period. This procedure is again used with the sixth-century data, although here there are no people belonging to the 600-550 and 550-500 periods; only 4 people, of line 13 (600-500), need to be worked in. The "weighing" carried out on lines 4, 7, 8, and 13 is perhaps the fairest (and truest) method of dealing with these data. Whether we arbitrarily assigned, say, the 40 people of the line four period (700-650) all to the 700-675 period

⁴² In the *agora* settlement sample, there is no relationship between the number of rooms in a house and social status (see discussion in ch. IV). On this basis, therefore, I feel that renovations to houses would appear to reflect more residents through demographic growth, not more grandeur. But, at the same time, these new residents should not necessarily be identified as demographic additions of another sort, namely slaves.

⁴³ Two houses (50,2-3; 22,20) were destroyed around 600 BC to make room for monuments. If one were aiming at absolute consistency, one should subtract eight people (four for each house) from this total, but we simply do not know what happened to these displaced individuals (they may have, for instance, moved to a new house elsewhere, possibly even somewhere in the existing sixth-century settlement sample). As the population estimate is intended only to give an order of magnitude, the figure is left as it is.

DATE	PEOPLE PER HECTARE	DOMESTIC SETTLEMENT SIZE	TOTAL ESTIMATED POPULATION
725-700	9	25	225
700-675	27	25	675
675-650	45	25	1,125
650-625	55	25	1,375
625-600	83	25	2,075
600-575	85	25	2,125
575-550	89	25	2,225
550-525	90	25	2,250
525-500	91	25	2,275

Table III.2: Population estimates for archaic Megara Hyblaia.

*The numbers in columns two and three are multiplied to arrive at a population estimate.

or all to the 675-650 period or, as is most likely to be the case, spread them out over the whole fifty year period, is not really at issue, for the trends of the excavated sample seem to be clear enough: volumes of living space and numbers of people increased over time (fig. III.1).

The population estimates for the excavated area obtained by the previous method represent a mere fraction of the total population, and in order to get some idea of the order of magnitude of Megara Hyblaia's archaic population we may tentatively combine the results of the previous exercise with those of the following one. Of Megara Hyblaia's intra-mural space 25 hectares were probably set aside for domestic use (see ch. II for the basis of these figures). Next we need a people per hectare multiplier. The excavated sample from around the *agora* allows a rough indication of this to be worked out for much of the archaic period (table III.2). The people per hectare figures in column two of table III.2 have been calculated by taking the quarter-century population totals (of fig. III.1) and dividing each of them by 2.25 hectares (the size of the sample of settlement evidence).⁴⁴ Thus, instead of adopting one catch-all multiplier, it is possible to have a more direct, and hence less theoretical, idea of the population of Megara Hyblaia. If the houses in the *agora* area are anything to go by, therefore, by the end of the sixth century Megara Hyblaia's *polis* centre was home to about 2,275 people.⁴⁵

⁴⁴ A slight difference applies to the first of the quarter-century totals, namely the 22 people belonging to the period spanning 725-700 BC. For the present purpose 20 should instead be used because one of the houses comes from the south plateau excavations. I follow the UN practice of including all space in working out my people per hectare multiplier.

⁴⁵ Note, for comparative purposes, that the fifth-century population of Himera has been estimated, from archaeological evidence, at 3,000-4,000 (Martin et al. 1980b: 577). The assumption underlying the Megara Hyblaia population estimate is that domestic settlement was widely distributed from the eighth century, with the density of habitation increasing as time went on (full discussion in ch. II). It should be noted that even if we knew the sizes of all plots (see discussion in ch.

II. POPULATION BY TOMBS

Population estimates cannot be made using the evidence of tombs, for various reasons. One of the impediments is the small number of published archaic tombs: 1,500 tombs have come to light (Gras 1985: 571), but only less than one-third of these are published in any usable way (most of the published examples derive from Orsi's nineteenth-century excavations; consequently they need to be restudied). There is also no way of telling whether the published examples represent a random sample of the whole and anyway, given the available number of tombs for study, we have in reality only a handful of graves for each year of the life of archaic Megara Hyblaia, hardly sufficient to build on.⁴⁶ The problem of publication could possibly have been made good had precise details regarding cemetery size been known; once again, however, the evidence is deficient. Furthermore, in an unpublished Cambridge doctoral thesis, Shepherd (1993)

IV), and from that a probable total for the whole settlement, we could not use these figures to estimate population, because the excavated sample clearly shows that not all possible plot areas were occupied by the end of the archaic period (see particularly fig. II.6 in ch. II). It is interesting to compare the present population estimate with the one derived from the technique discussed earlier of multiplying settlement area by a people per hectare multiplier. If we only knew that archaic Megara Hyblaia was 61 hectares in size, and knew nothing of the intra-mural usage of space, we would perhaps have subtracted from the 61 hectares 25-50% (or 15-30 hectares) as non-domestic space, which leaves 30-45 for habitation. We would then have multiplied these 30-45 hectares each by, say, 150 people to produce a population estimate of 4,500-6,750. This represents about two to three times more people over the estimate I have been able to formulate with more detailed data.

⁴⁶ Dunbabin (1948: 453-455) made rough calculations of the total number of tombs that could be expected to be found at a site. To follow a similar line of reasoning, though using the formula for estimating population size from cemetery data given earlier, there should be some 16,720 archaic deaths from Megara Hyblaia ($p=2,275$; $d=30$; $t=245$; $n=16,720$). The 1,500 tombs found to date represent only about 11% of what we should expect. Unfortunately, we will always have such small numbers, for the battle to save the necropoleis of Megara Hyblaia from encroaching industrialisation has been one of failures and limited successes: see the account of Vallet and Voza (1984: 11). One can only speculate as to the extent of the "danni incalcolabili" caused by this destruction.

has drawn attention to other problems in the site's burial record. For example, possible exclusion of children buried in the west cemeteries as well as the appearance of multiple burial, a phenomenon which has obvious difficulties in population estimation. All in all, numerous obstacles need to be removed before any population estimates can be formulated from Megara Hyblaia's mortuary data.⁴⁷

Closing Remarks: extra-mural population

Nothing has so far been said of extra-mural population. The reason for this omission is that archaeological research at the site has concentrated on the town and the countryside has largely been overlooked. As pointed out in the introduction, survey archaeology in Sicily has still to become standard practice, and so, in consequence, has serious interest in revealing human settlement and exploitation in the countryside. We can be certain that people were resident in Megara Hyblaia's territory because of two small concentrations of tombs, which imply accompanying settlements, and because of its outpost Styella mentioned in ancient sources (see ch. V for full discussion). Beyond these meagre snippets of evidence, patterns of human occupation and use of the territory wait to be discovered, and the emergent picture will, in any case, be partial. For in the immediate environs of the site, any traces of suburban population, such as that suspected by Orsi and Cavallari (1890: 743-748), who do not support their assertions, that may have existed have doubtless been lost to the post-World War II industrial invasion. The more distant territory offers the most hope. In the absence of relevant survey data, the results of recent survey work elsewhere in the ancient Greek world could provide instructive, if

⁴⁷ Had it been possible to make population estimates on the basis of tombs, Pelagatti and Vallet (1980: 383-384) would have done so, but Kamarina is the only instance in Sicily where such calculations are possible.

tentative and provisional parallels. Alcock summed up this survey work bearing on the question of population living outside the *polis* centre:

Life in nucleated settlements was...always the preferred choice in Classical antiquity, with the *astu* as the chief center of population in most *poleis*. The discovery of unexpectedly numerous small Classical farmsteads may have once encouraged the notion of numerous people widely scattered throughout the *polis* territory; but that reconstruction fails to take sufficient account of settlement trends within the *polis* as a whole, and the actual demographic significance of dispersed settlement has now been somewhat tempered. (Alcock 1993: 96; *cf.* also Jameson 1990: 173)

In view of the points raised, one could reasonably expect much the same picture to have pertained at Megara Hyblaia;⁴⁸ the bulk of the *polis*' citizens probably lived in the *astu* (for a similar conclusion, reached on different grounds, concerning Greek Sicily, see Vallet 1990: 33). The above focus on urban population, therefore, is a good guide to roughly the level of manpower resources Megara Hyblaia could muster.

Demographic Structure and Development

As was shown earlier in this chapter, the subject of demographic structure and development is the area of Greek demography in Sicily for which the evidence is at its weakest; in fact it is non-existent. A similar dearth of such evidence has often been encountered by scholars working in other parts of the ancient world, and they usually turn to modern model life tables in search of information on ancient demographic structure and

⁴⁸ These arguments may apply with slightly more force in a colonial context, where a foreign and potentially hostile native environment will surely have encouraged a nucleated settlement pattern, initially at least, with most inhabitants resident in the *polis* centre (see Greco 1992: 312). Admittedly, this was probably not so much a problem in Megara Hyblaia's case.

development.⁴⁹ These model life tables have been constructed using data from modern societies of the nineteenth and twentieth centuries, where life expectancy at birth, unlike ancient societies, rarely dipped below 35 years; mathematical extrapolations are then used, working backwards, to fill out the expected picture (usually down to a life expectancy at birth of 20 years).⁵⁰ For both ancient and modern demographers, there are several underlying assumptions to model life tables: that birth and death rates are constant, thus rendering the population static, and that the population experiences no fluctuations caused by migration (inward and outward), war, famine, and plague. "No real population ever fits these conditions, and so using a life table involves us in a certain amount of abstraction" (Morris 1992: 72);⁵¹ thus the population of a model life table refers to no particular people, place, or time (*cf.* Newell 1988: 130).

In modern demography these model life tables have various uses which Newell (1988: 118-119) clearly summarises; of the six uses he lists, the third one is of the most relevance to historical demographers. This third category prescribes using a model when data are partially missing, or when those same data are not believable, and Newell issues the following warning:

Historical demographers make extensive use of models in this way to build up plausible pictures of the past using scanty documentary or even archaeological evidence. It should be emphasised, though, that models used in this way are not magic. They can merely provide estimates or ranges of estimates and these have to be based on data

⁴⁹ For a lucid introduction to model life tables by a modern demographer, see Newell (1988: ch. 12); the best accounts for the classical world are Parkin (1992: ch. 2) and Bagnall and Frier (1994: 32-38, 76-81). The second edition of the model life tables prepared by the Princeton Office of Population Research (Coale, Demeny & Vaughan 1983) are those now most widely used by classical scholars.

⁵⁰ See the discussion of this matter by Parkin (1992: 81).

⁵¹ For this same point, see also Parkin (1992: 73).

which already exist. Otherwise one is merely guessing.
(Newell 1988: 118-119)

In other words, the model life tables can only be used properly if we had some ancient evidence to tie in with the model, to see what complete picture could be expected from incomplete data.⁵² Without ancient data--which would allow us to move from a theoretical model to reality--we are guessing according to Newell.⁵³ In the classical world, model life tables have nevertheless proved most fruitful in refuting statements which are demographically implausible,⁵⁴ and to use model life tables in their intended way we must always attempt to tie them in with past demographic data, for surely ancient evidence, combined with a theoretical framework, takes us closer to ancient reality than some recent model on its own could ever hope.⁵⁵

⁵² Parkin (1992: 79) translates Newell's third category of model usage as follows: "The basic idea of a model life table is to provide information on populations for which insufficient data are available or where data are of dubious value, in order to test the validity or demographic plausibility of certain assumptions about the population being analyzed." However, Parkin, having argued at great pains that there is no such thing as useful ancient evidence (Parkin 1992: ch. 1), gives the wrong impression that models are a suitable replacement for the lack of data.

⁵³ See most recently Lo Cascio (1994:34): "When quantitative evidence is totally lacking, the use of the model life tables cannot allow positive statements to be made about the structure or the dynamics of a population."

⁵⁴ In the classical context, notable examples are, for the Roman world, the work of Hopkins (1966; 1983; 1987) and, for the Greek world, Hansen (1986; 1988). Lo Cascio's (1994) debunking of Beloch is the most recent example.

⁵⁵ I agree completely with Parkin that ancient literary evidence is faulty for demographic reconstruction; however there is much archaeological evidence overlooked by him which need not be so hastily excluded. Despite Hopkins' (1987: 121) discouraging remarks concerning some of this archaeological evidence, namely the skeletal remains, I concur with Sallares (1991: 112) and Frier (1992a: 286) that study of this sort of evidence should continue, for techniques are rapidly improving (and only by studying an item can we improve the methodology). In more general terms, if we give up on the archaeological evidence and retreat to the "ideal world of models" (Frier 1992a: 286), we then create a biased picture of our discipline. An integrated approach is needed in this regard, and that is why I feel all aspects of demography should be studied, with no one element favoured over another.

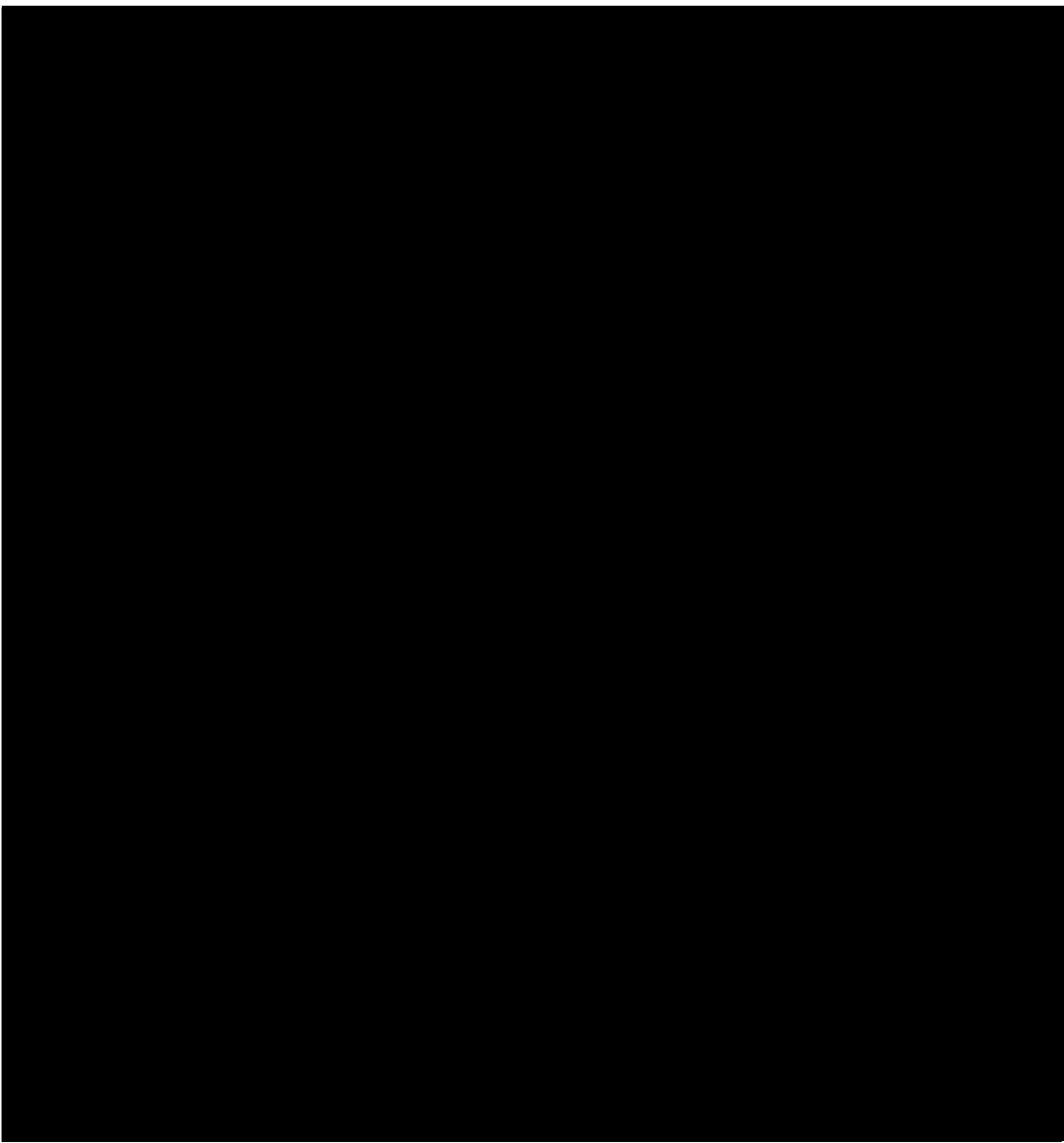


Fig. III.2. Population pyramid of Princeton, Model West, males, mortality level 4 (after Hansen 1986: front cover).

In the absence of data useful for studying demographic process in Greek Sicily, the selection of one model is as good as the next (compare Hopkins 1987: 116 n. 9). In view of the range of possibilities available, we are simply stabbing in the dark, though within a likely range. For comparative purposes, we follow the model selected by Hansen (1986: 11; 1988: 21) in his studies on Athenian demography: that is, the Princeton Model West, Males, mortality level 4, with an average life expectancy at birth of 25.26 years and an annual growth rate of 0.5% (*cf.* Coale, Demeny & Vaughan 1983: 43, 108) (fig. III.2).⁵⁶ Assuming such a model the population of archaic Megara Hyblaia would have exhibited the following characteristics.

Of the 2,275 inhabitants estimated above, about 46%, or 1,047 people, would have been below the age of nineteen, and approximately 5%, or 114 people, over sixty years of age (fig. III.2). The remaining 49% of the population (1,115 inhabitants) would have been between twenty and fifty-nine years of age, with about the first 10%, or 112 people, of this group belonging to the 20-24 age-group; thereafter each age-group (25-29 to 55-59) would have comprised 1% fewer individuals than its preceding age-group. As to the sex ratio, it is slightly in favour of males at birth,⁵⁷ but the likelihood that this ratio remained constant is very low (see, for example, Bagnall & Frier 1994: 92-99, 104). On the assumption of an unchanging sex structure from birth, slightly more than half of population consisted of males. The men between the ages of 19 and 59 liable for military service would have consisted of about half, assuming a roughly equal sex ratio, of the 1,115 people between these ages, namely in the range of 558 individuals.

⁵⁶ We cannot choose between a "male" or "female" model life table, because little is known as to whether there existed in antiquity a difference in mortality levels for the two genders (*cf.* Parkin 1992: 83, 102-103).

⁵⁷ Usually 105 males to every 100 females: Parkin (1992: 98).

For society to regenerate itself each family would have had to have, according to the model, just under six children ever-born per female (a gross reproduction rate of 2.807), and it also implies much "demographic wastage" (Livi-Bacci 1992: 100): one out of every three newborns died before the age of one. Half of these children born never lived past their fifth birthday. If a child reached this latter age, (s)he could expect at least another forty years of life. Like the older age groups, each successive age group (5-9, 10-14, etc.) would have lost a little less than 1% of its members through death before reaching the next age-group. Mortality increased the older one got.

The population of Megara Hyblaia in the archaic period may have followed the pattern just outlined.

CHAPTER IV:
SOCIETY AND POLITICS

Introduction

"...i primi due secoli delle *poleis* siceliote furono storia d'uomini, di istituti e rapporti sociali, di vicende economiche, di strutturamenti politico-costituzionali, che a noi importa moltissimo conoscere..., non furono certo deserto e assenza di vita" (Calderone 1978: 11).

The quotation above, excerpted from the opening paragraph of Calderone's keynote paper, sums up the complex reality of the formation and growth of society in early Greek Sicily.¹ As conference philosopher, Calderone initiated proceedings with a historical outline which, although recognised as being necessarily lacunose, he hoped would act as theoretical background for the archaeologists present, upon whom Calderone called to attempt to make up the deficiencies of the written sources.² This chapter aims to take up Calderone's challenge, drawing attention in so doing to both the great possibilities and inherent limitations such a task involves.

Society and Politics

The Eighth Century

The colonists who left Greece encountered numerous hardships in Sicily prior to

¹ The main focus of this conference was the eighth and seventh centuries of Greek Sicily (hence the "primi due" in the passage). Yet Calderone's views are quite at home in a wider chronological, and indeed geographical, spectrum than originally intended.

² The written sources for the archaic history of Megara Hyblaia are desultory. Only 15 inscriptions survive (fourteen of them are collected, with proper lemmata, in Arena [1989: 17-27]; cf. also Jeffery [1990: 269-270]; the fifteenth was discovered in 1992 in excavations; see Vallet [1993: 463-464]). The largest single class--nine, or 60%, of the total--consists of tombstones with little more than the name of the deceased inscribed on them. The other five stones are similarly terse in surviving inscribed detail and belong to various classificatory types. In both quantity and quality the epigraphic sources are quite scrappy; accordingly, none can play a significant part here. The information furnished by ancient writers is plagued by brevity, with regard to both the number of events (a mere five) and to the amount of detail recorded.

founding Megara Hyblaia (see ch. I). These harrowing experiences would doubtless have done much to introduce the Megarians to the socio-political realities of this new world. Any attempt to understand early developments at Megara Hyblaia should also take into consideration the experiences the Megarians brought with them from the homeland, since we can expect elements of both worlds to be present.

The history of mainland Megara up to the foundation of Megara Hyblaia is sketchy.³ The earliest event recorded is an act of synoecism which brought together, around the middle of the century, the *komai* of Megara, Heraia, Peraia, Kynosoura, and Tripodiskos (Plutarch, *Greek Questions* 17).⁴ This re-organisation of settlement may have had something to do with the disappearance of Megarian monarchy, which is thought to have happened no later than the last quarter of the eighth century, aristocratic rule becoming the norm thereafter.⁵ Hostilities with neighbouring Korinth are also attested (Plutarch, *Greek Questions* 17; cf. Aristotle, *Politics* 1280b.13-17). Almost certainly related with this conflict are the loss and recovery of Megarian territory mentioned in the epitaph of the Olympic victor Orsippos, who won the foot-race in 720 (*IG* vii 52).⁶ Pausanias (i.44.1) places Orsippos' involvement in recovering the lost territory after Olympia, and this has conventionally been dated to the late eighth/early seventh century

³ Next to nothing is known archaeologically of the eighth-century Megaris (Legon 1981: 41; Muller 1983: 619-626; C. Bérard 1983: 634-639). The written sources for early Megarian history are few, and generally need to be read in conjunction with modern analyses in order to understand their significance.

⁴ Cf. also Highbarger (1927: 66); Legon (1981: 47-55); Muller (1983: 626-627); C. Bérard (1983: 638); Figueira (1985b: 265-269).

⁵ Highbarger (1927: 66-94); Hanell (1934: *passim*); Legon (1981: 55-57); Muller (1983: 623-626); C. Bérard (1983: 636-637); Figueira (1985b: 264).

⁶ For the Korinthian connection, see Legon (1981: 63-65) and Salmon (1984: 71). Cf. also Highbarger (1927: 19); Legon (1981: 60-63); Muller (1983: 627); C. Bérard (1983: 637); Figueira (1985b: 262-265, 269-273).

(Legon 1981: 63). The territory disputed may have been the Perakhora peninsula: some scholars believe they can detect, in the archaeology of the sanctuaries of Hera, a Korinthian take-over in the third quarter of the eighth century.⁷ Whether this claim is true or not has no bearing on the existence of territorial disputes in eighth-century Megaris. It is also interesting to note that there may have been another settlement overseas at Astakos in the Propontis around 711, if Eusebios' date is to be believed (ed. Schoene, p. 85).⁸

These few episodes represent the extent of what is known of the history of mainland Megara round about the time of Megara Hyblaia's foundation. The details preserved are enough to suggest that far-reaching social and territorial transformations were taking place at home, and that possibly other new horizons abroad were pursued as well.

This background may help to explain some of the features observable in the early Megarian experience in Sicily. For instance, the hostility between Korinth and Megara makes plausible the view that Syracuse was responsible for expelling the Megarians from Thapsos (ch. I), thus possibly adding an element missing in the written tradition.⁹ And it also seems to offer explanations for some features of the eighth-century archaeology of Megara Hyblaia.

⁷ This is not the place to enter into the long and complicated arguments; for the take-over theory, see Legon (1981: 66-69); Salmon (1984: 59, 94, *cf.* 71); de Polignac (1995: 51-52); *contra*: Morgan (1990: 161-162).

⁸ There is also an ancient tradition that claims Astakos was a sub-colony of Khalkedon, which was itself not founded until 685 (Kharon, *FGrH* 262 F6). Nothing is known of the archaeology of early Astakos (see Graham 1982a: 119-120).

⁹ If mainland Megara sided with Eretria in the Lelantine War in the later eighth century, it may also explain the frosty reception the Megarians received from the Khalkidians of Leontinoi (see discussion in Salmon 1984: 68).

One such area concerns the question of social significance behind the organisation of the settlement. In the final publication of the *agora* area, the French noted two points in succession, though without making any connection between them: first, that mainland Megara had merged from five villages and, second, that two, if not more, different orientations existed in the town plan (*MH* i.406-408). Six years later Svenbro (1982) made the connection and argued that the different orientations in the plan could reflect the fivefold division of Megara Hyblaia, based on the five original *komai* that synoecised to create the metropolis. On the face of it, Svenbro's argument is theoretically possible: Métraux (not cited by Svenbro) had pointed out that¹⁰

The social dynamism of Greek life begins to take shape at this period, and the city comes to be a laboratory for social experiments based on political principles and undertaken with specific assumptions about how the city should work.

The relationships of the social classes, which in modern city-planning is a crucial element, must have played an important role in determining the policies and assumptions which affected the physical lay-out of the colonial cities.
(Métraux 1978: 2 and 16)

The excavators replied to Svenbro by accepting the possibility that such social divisions might find reflection in a town plan, but denying that Svenbro's town plan was the same as theirs (*MH* iii.145-146 with n. 1).¹¹ In any case, it seems legitimate to maintain that the

¹⁰ It should be noted that Métraux's book, although published in 1978, is up-to-date only to 1972: hence he did not make use of the *MH* i final publication. The aim of Métraux's (1978: 14) study is as follows: "It is the object of this study to indicate the ways in which traditional or new social norms and needs which conditioned the development of the Greek colonies in Sicily and Italy in turn affected the urban environment which were their setting." Unfortunately, the discussion dedicated to Megara Hyblaia is little more than a summary of the results available at the time (Métraux 1978: 153-156).

¹¹ De Polignac (1995: 125-126) builds on Svenbro's idea by postulating that each of the five quarters could have had their own sanctuaries, as some evidence exists for sanctuaries in areas other than the *agora* (see ch. II). Holloway (1991: 52), by contrast, rejects outright the possibility introduced by Svenbro: "It would be hazardous

social divisions attested in the homeland at the time might be represented in Megara Hyblaia's town plan. If so, this would be an indication of the continuity of the newly acquired framework of societal organisation that had itself just come into existence at home. Accordingly, we may presume that all five villages of Megara had a hand in establishing the new settlement. Something can also be said about the number and sort of settlers that left for Sicily.

There has long been much interest in determining the number of settlers originally involved in archaic settlements overseas. Most scholars believe that numbers were small; their support undoubtedly derives, whether directly acknowledged or not, from Herodotos' (iv.153) statement that two penteconters (or in other words a maximum of 200 men) were sent to Kyrene, and from Stephanos of Byzantion (s.v., Ἀπολλωνία), who records that 200 settlers founded Apollonia in Illyria.¹² Those scholars who accept this viewpoint overlook the fact that there are also two, possibly three, instances in written sources of 1,000 settlers given as the initial size of the colonising party.¹³ Light may be

to attribute the alteration of direction to some formal social division within the colony (Megara, the mother city, had five tribes [*sic*, villages])." Holloway's reasoning seems to be connected with his belief that there was a slight time-lag between the laying out of streets A and B. Even if Holloway's time-lag hypothesis were correct, it would be no obstacle to accepting, at least in theory, Svenbro's contention.

¹² Beaumont (1936: 169 with n. 73); Dunbabin (1948: 352 n. 3, 454); Gallo (1983: 703-704); Di Vita (1990: 348); Sallares (1991: 91); Cawkwell (1992: 290-291, 295-296); Murray (1993: 106). Only Gallo and Di Vita base their conclusions on archaeology. Compare also Whittaker's (1974: 69) archaeological estimates for Carthage.

¹³ The three instances are Leukas (Ps.-Skylax 24), an Athenian colony in Thrace (Plutarch, *Perikles* xi.25-26), and possibly at Thasos (in the so-called "Monumentum Archilochi" from Paros: *IG* xii.5 445 col. A iv.22, with supplement pp. 212-214). These cases probably explain Graham's (1982a: 146) caution in necessarily regarding initial numbers as small. Note also Snodgrass (1994: 2), who thinks that the colonies had a more mixed Greek make-up than the literary sources suggest; this view is founded on the belief that no one party could have supplied the necessary manpower. Snodgrass seems to be implying that the original colonising group was rather more sizeable than is often assumed.

thrown on this matter by working back from the estimated population size at Megara Hyblaia around 700 BC, but to arrive at a conclusion we need to make clear some assumptions (in this exercise I follow Morris 1987: 166).

I have argued above that in 700 BC the population of Megara Hyblaia may have consisted of about 225 people (table III.2). Even if one were to take issue with this estimate, on the grounds that it assumes that the nuclear family was not functioning at eighth-century Megara Hyblaia, and so doubled the estimate to 450 people, it would remain true that the population numbered in the few hundreds rather than in the thousands. If we divide these figures by two, assuming a natural increase which led to a doubling of population in the generation after foundation, we arrive at an original settlement population of 112-225 people.¹⁴ This range represents an estimate of Megara Hyblaia's earliest population size, not the number of people Lamis led from Greece. Account must be taken of possible changes in the size of the original nucleus, through death, as happened with Lamis, and through various kinds of accumulation, like intermarriage with local women. The 112-225 population range could be halved to 56-112 men, if native wives were taken.¹⁵ Therefore, depending on what assumptions one

¹⁴ We cannot tell whether there was significant population-growth in the early years of the colony, but there is unlikely to have been severe shrinkage. Serious inbreeding problems (q.v., Sallares 1991: 235) would be faced by such a small population. For Megara Hyblaia's possible solution, see below in this chapter.

¹⁵ We have no way of telling whether native wives were taken in the eighth century. R. Van Compernelle (1983) and Gallo (1983: 705-715) have argued that the taking of local wives was, with few exceptions, standard practice by first-generation colonists. Morel (1984: 134-135), Coldstream (1993), and Braund (1994: 81-83) are generally open to the idea, while Graham (1980-81) has observed that some Greek women were needed to carry out religious duties (this array of opinion is probably the source of Cusumano's [1994: 95-104] caution: he gives the impression that answers should be sought at an individual level, with each case evaluated on its own merits). To follow Graham's line of reasoning: if all five original Megarian *komai* participated in the foundation of Megara Hyblaia, then it is possible that a female component from the Heraia *kome*, connected with the cult of Hera

accepts, the original nucleus could have consisted of anywhere from 56-225 people.¹⁶

How the community was organised socially is harder to determine. The initial desire to found a settlement in Sicily was born in a world ruled by aristocracies, and without a doubt individuals of this social standing should be expected amongst the first settlers. The participation of colonists of humbler origins is also likely (Finley 1979: 38), so that we need to reckon with the possibility that the full spectrum of mainland Megarian society could be represented at early Megara Hyblaia. But how did the settlers organise themselves? Can social classes be recognised in the material remains?¹⁷ To answer these questions, we need to consider not just the evidence available for social reconstruction, namely domestic architecture and tombs, but also other factors which might affect the archaeological record.

(Highbarger 1927: 63; Hanell 1934: 75-79), accompanied the enterprise from Greece. But this is far from being concrete proof. Some later tombs (possibly dating from around the mid-seventh century) betray signs of native burial ritual (see below). However, it is impossible to ascertain whether the interred represent the offspring of eighth-century mixed marriages or are the result of a later influx. Nothing is known, unfortunately, of native/Megarian relations between the time of Hyblon's offer of a site and the mid-seventh century.

¹⁶ Compare these estimates with Legon's (1981: 75): "...a small party of Megarians, perhaps fewer than a thousand...." Cf. Purcell (1990: 34), arguing that high demographic levels are not required to maintain long-distance contacts.

¹⁷ Legon's (1981: 56) statements concerning a council of *aisymnatai* at Megara Hyblaia in the eighth century, a reconstruction which he then uses as evidence for the office in mainland Megara's pre-monarchy days, rest on weak foundations. To be fair, Legon sees the council's presence as "likely" at Megara Hyblaia, and to back up his claim he cites the relevant section of Hanell's (1934: 149-160) comparative study (to which add now N. Jones 1987: 283-284), which provides no such support. The only evidence of *aisymnatai* is found in an inscription from Olympia dated to the late sixth/early fifth century, which was once thought to refer to exiles from Megara Hyblaia at Selinous, but which has now been conclusively shown to refer to Selinountine exiles at Megara Hyblaia (see ch. IX). Although Selinous was a sub-colony of Megara Hyblaia, and hence may have derived its institutional framework from her (the influence could also have been due to Old Megara's participation in the founding of Selinous), it is dangerous to extrapolate and extend it back into the cloudy beginnings of Megarian history.

The eighth-century tombs are barely known: only five have so far been discovered, all in the southern necropolis.¹⁸ These tombs belong to the last two decades of the eighth century, which means that the earliest tombs still await discovery (Cébeillac-Gervasoni 1976-77: 589). While it is true to say that no signs of elevated status can be detected amongst this handful of tombs,¹⁹ the size of the sample needs to be borne in mind: to draw conclusions from this material is premature.

Megara Hyblaia's domestic architecture has generally received very little study since publication; only one major attempt (Fusaro 1982) has been made to understand the society behind the houses. In this study Fusaro (1982: 16) concluded that no houses of noble status are found in the eighth century, adding as further support that, had they existed, they would certainly have been located around the *agora*. This conclusion is based solely on the size and uniformity of the houses, but there are others matters, primarily methodological, which need to be addressed before such a conclusion can legitimately be drawn (many of these points have a wider relevance, being applicable to later houses as well).

The ten, possibly thirteen, houses are poorly preserved, surviving only in bare foundation; hence it is impossible to judge energy expenditure.²⁰ Conditions of survival

¹⁸ The rite consists of three inhumations and two cremations in urns (Cébeillac-Gervasoni 1976-77: 589-594, nos. B88, 129, 138 and C191, 224). Tombs only start to become plentiful at Megara Hyblaia in the second quarter of the seventh century (see below). I do not see how Shepherd (1995: 60, *cf.* 56) can claim "...an initial and substantial departure from homeland burial practices" when so little is known of Megara Hyblaia's early burial customs, and next to nothing of those of the mother-city. The variety of rite so early on is interesting, and could possibly indicate a mixed Greek population.

¹⁹ Compare Greco (1994: 17) on the lack of princely tombs at early Megara Hyblaia.

²⁰ Even when there exists an exploitable possibility, a problem of another kind is encountered. Contemporary differences in masonry styles cannot be used, except possibly in three sixth-century instances

also eliminate the opportunity of tracing social differences either from artefacts recovered inside the houses,²¹ or from the original sizes of plot on which the houses were built.²² The stratigraphy has been disturbed by post-archaic building and by the two destructions that the city suffered in antiquity (*e.g.*, *MH* i.302-303, 366).²³ We can add another impediment to the latter: the associated finds from the individual houses were never spelled out in the final publication (*MH* i), though, even if they had been, grave doubts would have hung over their utility in view of the stratigraphical problems encountered at the site. This leaves us with one final possible avenue to explore, that is, the comparison of ground plans (house size and number of rooms). Yet the eighth-century houses are too uniform in layout and size for this consideration to apply, and so we come full circle back to Fusaro's conclusion. But there is one element overlooked by Fusaro, namely the subterranean silos, probably used to store grain.²⁴

The contexts of the silos allow something to be said about their ownership (Delano

(see below), as an index of energy expenditure, since styles evolved all over the site in clear succession (Gullini 1978a: 452 makes the same observation).

²¹ Cf. in general Mignon (1993: s.v., "household archaeology") and Wason (1994: esp. 134-152).

²² The dimensions of only five plots can be established for the whole archaic period (*MH* i.284,298; Fusaro 1982: 20-22). The averaging of the known plot sizes yields "...une dimension moyenne de 100/120 m.²..." (*MH* iii.147). It is possible that perishable markers were used to delineate boundaries. Even if plot sizes were better known, other factors, such as land ownership (several plots could have been owned by a single proprietor) and "...données topographiques ou pédologiques..." (Gras 1985: 414) (which would have encouraged dispersed holdings), would need to be considered before using the plots as evidence for inequality.

²³ "...disturbance of the archaic floors has destroyed virtually all evidence of how the houses were lived in" (Coulton 1979: 148).

²⁴ I know of no other silos from Greek Sicily. Agricultural storage is a subject that has hardly been addressed in Sicily (as in Martin, Pelagatti & Vallet 1980: 424-425). Early Greek silos are generally poorly known: compare Garnsey and Morris' remark to be presently cited.

Smith 1979: 198). The silos occur in only three out of ten to thirteen domestic contexts; their siting would suggest that they were privately owned, belonging to the houses with which they are associated.²⁵ Filled to capacity, these silos could have stored about double the amount of grain a household usually put into storage (see ch. V for calculations). If we assume that these silos reflect the concerns of the household with which they are associated, then it is obvious that the households in question had in mind more than mere subsistence and storage to meet their own needs. Therefore, could the silos not conceal a more privileged social position in the community? In Dark Age Greece Garnsey and Morris (1989: 100) have posited that

...the élite's claim to the labour of their dependents was counterbalanced by responsibility for providing food in times of need, exploiting their capacity to store large surpluses and to tap surplus-producing areas abroad. Unfortunately, most excavation has focused on cemeteries, and large concentrations of storage facilities have not come to light.

Is it not possible that Megara Hyblaia was one of those "surplus-producing areas abroad"? This becomes all the more possible in view of the territorial contraction that occurred in mainland Megaris in the course of the eighth century. Legon (1981: ch. 3) has already connected Megarian settlement overseas with the loss of land at home, citing overpopulation as the reason: for Legon settlement was meant to relieve excess population. The situation can be viewed in another way, however. The silos might represent a form of élite investment overseas: the establishment of a settlement in Sicily

²⁵ Since these silos were built into the ground, their preservation has been less affected by the destruction caused by later buildings. Therefore, the silence of the archaeological record for silos elsewhere in the settlement could be significant. Forbes and Foxhall (1995) have recently emphasised that storage was generally at the household level. Communal storage seems to have been uncommon in ancient Greece, although an early seventh-century silo from Megara Hyblaia's agora could be an exception to this supposed rule (see ch. V).

as a reaction to the disappearance of vital natural resources on the home front. The silos may, therefore, be a sign of élites, who sought to produce a surplus.²⁶ It is interesting to note that two of these three houses with silos seem, judging from house sizes alone, to have become some of the more prosperous households at Megara Hyblaia in the next century.²⁷

The existence and relationship of different social classes at eighth-century Megara Hyblaia is a subject that is far from resolved. Further analytical work is required before satisfactory responses can be given. At any rate, if different classes did exist, they would have been difficult to enforce too rigidly. On account of distance from the homeland and the need for co-operation amongst a usually small population, a frontier situation can modify social behaviour, for at least this earliest phase of the settlement.²⁸

The Seventh Century

Archaeological and written sources are richer and more varied than for the eighth century, though there is still much that we should like to know. Nevertheless, the seventh century appears to have been a dynamic and florescent period in Megara Hyblaia's history.

²⁶ There has been a lively debate about the initial appearance of the grain trade. A recent tendency is inclined to place it no earlier than the sixth century: Sherratt and Sherratt (1993: 371, 373-374); Arafat and Morgan (1994: 129); Lombardo (1995: 263). Megara Hyblaia's early silos might confirm archaeologically Bravo's (1983) argument, from literary evidence, that the grain trade had its origins in the eighth century.

²⁷ House 47,11 goes from a minimum of 27.45 m.² to a minimum of 45.75 m.², and house 58,20 goes from a minimum of 13 m.² to a minimum of 23.2 m.² (compare entries in tables II.1-2).

²⁸ Note, for instance, that even in early modern Québec, where the rich held most of the land, "...the power of one group to exploit another remained limited in this frontier situation..." (Trigger 1986: 330). The effects of synoecism would still have been fresh in the minds of the Megarians, and this could have acted as a further division within the body of colonists, perhaps preventing one group from being dominant over the other.

I. 700-675 BC

One of the most striking features of the seventh-century domestic settlement record is the quantity of new houses. In relative terms, there are 17, possibly 21, additions and 4 renovations in the first half of the century, and 18, possibly 21, additions and 4 renovations in the second half.²⁹ This represents more than a 300% increase in domestic housing over the eighth century. The excavators have also drawn attention to this same phenomenon:

...l'étude de l'habitat montre que les premières maisons, celles qui remontent au VIII^e siècle, sont relativement peu nombreuses et que, dès le début du VII^e siècle, nous voyons augmenter à la fois le nombre des pièces de la maison et le nombre des maisons; ainsi dans le quartier de l'agora, la densité de la population s'accroît sensiblement au cours de la première moitié du VII^e siècle. (*MH* i.412)

In approximate absolute terms, the surviving houses suggest that population grew from 225-450 people at the end of the eighth century to 675 people by the end of the first quarter of the seventh century (table III.2).³⁰ This demographic growth certainly contributed to the material differences that become evident when we compare contemporary house plans.³¹

To judge these differences, we are completely reliant on house size and number of rooms, for reasons outlined earlier. House size is considered a very good indicator of prosperity (Wason 1994: 137), whereas room numbers may be the result of factors that

²⁹ Two other new houses can only be broadly dated to within the seventh century (table II.8).

³⁰ If we take 225 people as our base figure, this represents an annual increase of 4.49%.

³¹ For the connection between population growth and social change, see ch. III. I follow Wallace-Hadrill's (1994) practice of comparing sets of houses with the fullest preserved information possible, in order to make the comparisons legitimate.

have nothing to do with wealth (Wason 1994: 141). As will be seen below, the number of rooms in a house is not a corollary of wealth at Megara Hyblaia.³²

Four houses are available for comparison in this quarter-century (table II.2). House 40,2a occupies the lowest end of the spectrum, comprising a single room measuring just over 10 m.² The next largest is house 58,17, with a minimum of 23.2 m.² divided into two rooms, followed by 64,5a-7 with a minimum of 36.96 m.² in three rooms, and finally 47,10 with a minimum of 45.75 m.² in two rooms. Although the plans of the last three houses are incomplete, enough survives to demonstrate that they were at least two to four times bigger than house 40,2a.

II. 675-650 BC

Twenty-five years later, population appears to have almost doubled, perhaps growing from 675 to 1,125 people (annual growth-rate of 2.06%) (table III.2). Some of this growth was doubtless due to natural increase, but some of it may have also been the result of an influx of natives. Two unique burial practices found in the cemeteries of Megara Hyblaia provide the evidence for this.³³

Gras (1975: 48) draws attention to one of these practices:

Particulièrement intéressantes sont les observations qui ont pu être faites sur la position des corps: on a...rétrouvé...six corps recroquevillés.... Ces constatations prennent toute leur importance si l'on se rappelle qu'on a souvent considéré la position *rannicchiata* comme un usage typiquement indigène, à moins qu'il ne s'agisse d'une influence indigène sur les colons grecs d'Occident. Etant donné la faible proportion des corps recroquevillés, on

³² Fusaro (1982: 22, 24, 29) simply assumes, without pursuing the question in detail, that the more rooms in a Megara Hyblaian house the wealthier the household. A more careful look at the evidence clearly suggests otherwise; on this, compare also more generally Jameson (1990: 191-192).

³³ Shepherd (forthcoming) has altogether missed this material.

n'exclura pas qu'il s'agisse d'indigènes intégrés dans la colonie mais fidèles à leurs traditions funéraires.

These six burials were discovered in 1974 in the south necropolis; they represent about one-tenth the total number of tombs (sixty or so) uncovered in that season (Gras 1975: 47). It is also reported that the general time-frame of this whole group of tombs is 675-500 BC (Gras 1975: 41). No further details are given, for which we must await publication; in the meantime all that can be concluded is that the distinctively native *rannicchiata* positioning of the corpse is attested in one of Megara Hyblaia's archaic necropoleis.³⁴

The second practice is decapitation, involving either the interment of the corpse without its cranium, or the interment of the cranium without the remaining corpse. Decapitation is found elsewhere in Sicilian cemeteries, and majority opinion holds that its appearance is owed to the presence of natives.³⁵

Orsi discovered several examples of this practice in Megara Hyblaia's west necropolis. Two of the instances are described as follows: "...rito strano è quello dei cadaveri decapitati; i sepolcri n. 208 e 235, *chiusi ermeticamente*, contenevano due scheletri distesi..." (Orsi & Cavallari 1890: 774; my italics). Another tomb (no. 309) contained three depositions, two of whose remains consisted only of crania (Orsi & Cavallari 1890: 902-904). Tombs 56 and 86, containing a total of five and six depositions

³⁴ On this basis, other scholars have taken seriously the possibility of a native component at Megara Hyblaia: Gallo (1983: 706); Morel (1984: 152); Tréziny (1986b: 12); Domínguez (1989: 270-271); Tagliamonte (1994: 102), of whom only Tréziny and Domínguez pick up on the second rite to be discussed presently.

³⁵ See review of opinions in Guglielmino (1994: 208-209), and for a list of find-spots: Guglielmino (1994: 208-209). As regards Megara Hyblaia, Guglielmino lists only the first two cases examined here; more data exist, however (cf. Domínguez 1989: 260).

respectively, each had a cremated cranium without body (Orsi & Cavallari 1890: 826, 838-839).

Four observations may be made. First, it is clear that we are not dealing with later disturbances which account for the missing body parts: compare Orsi's point just quoted about the tombs being undisturbed archaeologically. Second, all instances occur exclusively in slab-covered monolithic sarcophagi. Third, decapitation occurs in tombs with multiple depositions (between two and six are recorded). These latter two points are particularly noteworthy because multiple burial is a distinctively native practice, whose appearance at Syracuse and Megara Hyblaia Shepherd (1993: 105-110) connected with native influence on Greek burial practices, and also because the monolithic sarcophagus is perhaps the burial receptacle at Megara Hyblaia most similar to the native rock-cut chamber tomb. Fourth, chronology: the west cemetery was in use between 675 and the early fifth century.³⁶ Multiple depositions render precise dating impossible, and this is made more difficult by the lack of details given for the grave-goods found in the tombs (see ch. V for discussion). In any case, from the information given, the oldest tomb with the decapitation rite is number 86, which contained, around the six interments, ten PC skyphoi, four Korinthian aryballoi, and one Etruscan "bucchero nero" kantharos. More precise details are lacking, but it is clear that the PC probably takes us back roughly to the first half of the seventh century, and the Etruscan pot to the second half (see ch. V for patterns of pottery importation at Megara Hyblaia). Tomb 309, with its three depositions, is said to have contained a Korinthian aryballos and a black-figure lekythos. Tomb 235 is reported as having contained "una lekythos e due pixides gr.," and there are no specific

³⁶ For the date and need for re-study, see Cébeillac-Gervasoni (1975: 15).

details given of the contents of tomb 56. Tomb 208 had no grave-goods. The chronology is coarse, but, of all the burials in which the decapitation rite appears, tomb 86 demonstrates that multiple depositions began to be made in a monolithic sarcophagus sometime in PC times.

Two more instances of decapitation have come to light in French excavations in the south cemetery. Both tombs (nos. B133 and C247) are cremations in urns, and both contain multiple burials (exact number unspecified), some without crania (Cébeillac-Gervasoni 1975: 35). Only tomb B133 has been given a date: the latest deposition took place at the end of the sixth century.³⁷

There is one more element to this argument which refines, and reinforces slightly, the chronology. Around the mid-seventh century, native sites (Pantalica and Villasmundo) in the hinterland of Megara Hyblaia are abandoned (Vallet & Voza 1984: 57). The disappearance or decline of native sites, concomitantly with the foundation of Greek colonies, is a phenomenon that has been noted elsewhere in Italy, where it is associated with demographic transference, peaceful or otherwise, from the interior (Gallo 1983: 710-711). The "in-gathering" at Megara Hyblaia postulated above would not have been out-of-place for the Megarians, in view of the synoecism of Megara in Greece, presumably still fresh in the minds of the Megarians, particularly if new settlers from Greece also came out at this time. Coldstream (1977: 236-237) believes that Syracusan expansion, through the

³⁷ There appear to be no typically native artefacts associated with the burials in either rite. This is hardly an obstacle to accepting a native element at Megara Hyblaia. Hall's (1995b: 8-10) recent work has demonstrated that ethnicity is a complex construction which cannot be reduced to the presence or absence of artefacts; more defining features of ethnicity are language, mythic structures, and ritual, features often difficult to detect archaeologically. Compare also Dilliplane (1985: 179-180): "...just because artefacts and features found at a site may not be of the types that we would expect to have been left behind by a particular ethnic group does not mean that the people being studied had lost that ethnicity."

establishment of two military sub-colonies, Akrai and Kasmenai (see ch. V), was responsible for the abandonment of Pantalica. Syracuse's policy of enslaving the native population made matters tense at the very least, and may have encouraged a nucleated settlement pattern. Synoecism might thus have offered both the Sikels and Megarians a partial solution to Syracusan aggression; the native king Hyblon had done the Megarians a good turn, and it would not be too far-fetched to suggest that the Megarians now reciprocated this benevolence in the natives' moment of need, a shift in the balance of power brought about by the new socio-political arrangement taking root in eastern Sicily. As Domínguez (1989: 269-271) has already suggested, there may be an interrelated connection at Megara Hyblaia involving the noticeable population increase, the appearance of native-style mortuary ritual, and the abandonment of the countryside by the natives. If so, this could well have been the reason why the tradition of Megara Hyblaia's good relations with the natives was passed down through the centuries.

Whatever the opinions of earlier generations of scholars to the contrary,³⁸ more and more evidence either strongly suggests or unequivocally demonstrates that Greeks and natives lived alongside one another in the Greek *polis*, not as master and slave, but

³⁸ In addition to Dunbabin, compare also Finley (1979: 30): "The first colonists attracted further settlers in the following decades and centuries.... Presumably the tempo and quality of migration at any given moment were determined largely by what was happening at home rather than by Sicilian developments....archaeology has provided sufficient proof of a steady growth in population and in the total inhabited area, which natural increase alone can scarcely explain." And Graham (1982a: 146-147): "The answer to the question how population built up so rapidly is not to be found in such improbable hypotheses as that natives were admitted on a substantial scale, but rather in the relatively well attested practice of bringing in further settlers from the mother city, or more widely from Greece generally, once the colony had established itself." Finley and Graham take too narrow a view, overlooking altogether developments in Sicily. New settlers could certainly have come from Greece, but that need not be the only possibility.

as equals.³⁹ This is a reality, perhaps more acceptable in these post-colonial times, that can no longer be denied: as Said (1993: ch. 1) has put it, colonial encounters involve "overlapping territories, intertwined histories."

The arrival of natives added, if it already did not exist, a different ethnic component to the population of Megara Hyblaia. The integration of these newcomers did not disrupt in any way the social ranking that had begun earlier, for material differences continue to be seen in the housing (table II.3). A one-room house (23,8), whose plan is intact, occupies an area of 22.5 m.² This can be compared to two other houses whose plans also survive; house (33,19a) comprises two rooms which occupy just over 44.2 m.², and house (22,20a-c) comprises three rooms which cover 57.4 m.² There is further evidence in the sample of houses that can only be dated to the first half of the seventh century (table II.4).

Of this group, one house (23,5) stands apart for its unique plan and positioning in the settlement. This house, built during the first half of the seventh century, belongs to the *pastas* variety, and consists of three rooms (on about 51 m.²), two lying side-by-side and the third acting as a kind of porch (table II.3). Its west wall lies directly on the median line of block 6; a stone "fence" surrounded the house and its grounds, on which a well was also found. House 23,5 faces east onto the *agora*, unlike *all* of Megara Hyblaia's other archaic houses, which face south. What singles this house out further is its location near

³⁹ Compare most recently Carter (1993: 357) on Metapontion: "I am inclined to think that most of the demographic increase took place at the end of the sixth century, perhaps aided by influxes of outsiders, including Greeks like Metaponto's most famous immigrant Pythagoras, and also natives from the interior." And Carter (1993: 361): "The growth of Metaponto, like that of Sybaris, would have depended at least in part on the ready assimilation into the citizen body of the native populations resident in the countryside." For co-existence, see also Castellana (1980), Gallo (1983: 706-707), Morel (1984: 124-125), Tréziny (1986b: 12), Domínguez (1989), and Guglielmino (1994: 207-209).

the corner of streets A and C1, adjacent to what the excavators believe is the *heroon*. House 23,5's unique plan and location make it stand out, and it is on this basis that scholars have been led to believe that the house belonged to a family of high status, perhaps closely connected with the foundation of the city.⁴⁰

Other differences can be seen in the housing (table II.4). The smallest intact house is 40,5+49,2, consisting of a single room, with a surface area of 24.64 m.² The upper end of the spectrum is occupied by house 40,7a-c,11, made up of four rooms with a surface area of almost 64 m.² In between these two extremes are house 14,17+23,11, with three rooms on 34.35 m.², and the *pastas* house (23,5) just discussed, with three rooms on 50.84 m.²

III. 650-625 BC

There was much activity in the third quarter of the seventh century. In this period, Megara Hyblaia experienced its first, and most intense ever, wave of monument-building, and there was also expansion abroad with the establishment of Selinous. Before we turn to these matters, some literary and iconographical evidence exists which can be woven together to yield insights into the character of the society responsible for these accomplishments.

We begin with the corpus of Theognidean poetry. In antiquity Theognis' floruit was placed in the LIXth Olympiad (544-541) (Souda, s.v., Θεόγνις). That Theognis was a historic personage is not doubted, though at the same time it is clear that the nearly 1,400 surviving verses in the Theognidean corpus cannot have been composed by one poet alone. Internal chronological clues demonstrate that the poetry contains references

⁴⁰ *MH* i.412-413; Gullini (1978a: 454); Borelli (1981: 65); Fusaro (1982: 21, 24); Cordsen (1995: 105-106). Note that it is not house size or masonry type that makes this house unique.

spanning one hundred and sixty years, from the tyranny of Theagenes to the Persian Wars (*ca.* 640-480).⁴¹ This is a period of time which, by any reckoning, would have made a single person long in the tooth. It is thus better to speak more generally of the Theognidean corpus as "...a cumulative synthesis of Megarian poetic tradition" (Cobb-Stevens *et al.* 1985: 2). The justification for doing so is derived partly from the debate concerning the homeland of Theognis, a matter debated since antiquity.

The possible choices have centred on two cities, mainland Megara and Megara Hyblaia. Plato (*Laws* 630a) and the Souda (*s.v.*, Θεόγνις) favour Megara Hyblaia; Stephanos of Byzantion (*s.v.*, Μέγαρα) and Didymos (*Σ* Plato, *Laws* 630a) support the other option, while Harpokration (*s.v.*, Θεόγνις) attempts to reconcile the two sides by making Theognis a naturalised citizen of Megara Hyblaia. Although ancient writers may have had more information on which to base their opinion, we cannot satisfactorily resolve the matter of origins from these ancient sources, nor from the Theognidean corpus itself. Of the three passages in the corpus which allude to origins, two (*vv.* 773-774, 891-894) would indicate mainland Greece, while the other (*vv.* 783-788) could point to Sicily, though in this latter case the perspective may be that of an outsider (Figueira 1985a: 124). To judge from these passages alone, the balance would appear to favour mainland Megara. However, it is possible that Plato, in whose work the oldest testimony is found, may preserve more reliable information he obtained while in Syracuse, or it could simply mean that Plato found Theognidean poetry still in circulation in Sicily, and assumed, also from the disinterest the mainland Megarians apparently showed towards the corpus at the

⁴¹ For discussion of the internal dating evidence, see Cobb-Stevens *et al.* (1985: 1). Podlecki (1984: 143) is not so optimistic about chronology.

time, that Theognis was a Sicilian (Figueira 1985a: 124-127).⁴² At best this is only a possibility which demonstrates that ancient traditions about the homeland of Theognis cannot legitimately be pressed to support one or the other side of the debate.

Recent research, perhaps frustrated by swinging the pendulum between the two possible homelands, has moved in a different direction (Figueira & Nagy 1985). This new work prefers to see "Theognis" as a figurehead around whom specific and more general reflections of society have, through the medium of poetry, been absorbed. Such an approach is more in line with the nature and date of the Theognidean corpus, which thus becomes the pulse of archaic Megarians everywhere: Figueira (1985a: 127-128, 154) speaks of a "pan-Megarian Theognis" and of "ideological parallelism." This sort of thinking makes "Theognis" a reflection of all archaic Megarian society, opening up avenues previously believed to be unavailable.⁴³ Even so, however, the usefulness of the Theognidean corpus for historical reconstruction is rather circumscribed. "The corpus reflects history obliquely, developing in its own ideological terms and preserving vestiges of previous social situations. The Theognidean vision of Megarian realities was at every time highly selective" (Figueira 1985a: 112). Thus the corpus cannot be used as a direct historical source for any one time or place, but as a general source, rather, reflecting some of the morals and concerns of Megarian oligarchs in archaic times.

The Theognidean corpus contains very limited subject matter, focusing mainly on wealth, class, and the *symposion*. Many of the surviving verses advise various boys, particularly a certain Kynos, on the behaviour appropriate to persons of standing; in this

⁴² For Plato and Sicily, see von Fritz (1968); Finley (1979: 91-93); Sanders (1987: *passim*); Caven (1990: *passim*).

⁴³ As is the case with, for example, Dunbabin (1948: 418) and *MH* i (423-424 with n. 1).

way "Theognis" passes on knowledge which he himself had learned in youth (vv. 27-28). It is wealth which sets apart the poetry's audience: "It's not for nothing, Wealth, that men esteem you most, for you make light of dismal circumstance" (vv.523-524). Poverty, on the other hand, is a negative state of being (e.g., vv. 173, 177, 180, 182). Most of the references to the *symposion* are indirect (v. 298 is one of the few exceptions).

The Theognidean corpus conjures up a world that can find some visual expression in the figure-scenes on local polychrome pottery.⁴⁴ The chronology, context, quantity, and characteristics of this material will first be discussed (along the lines of Whitley 1991a: 21-23; 1994; cf. Wason 1994: 117-119).

Polychrome painting on pottery began in the Greek world around the mid-seventh century, and flourished briefly until the end of the century (Schaus 1988: 107-108). Of the six different wares on which the polychrome style appeared, only one, that of Megara Hyblaia, is to be found in the Greek west, and the style is believed to have been transferred there from Aegean Greece.⁴⁵ However the polychrome style reached Megara Hyblaia, the amount of time that elapsed between the two areas is difficult to know (*MH*

⁴⁴ The excavators of Megara Hyblaia fail to explore the possibilities raised by these figure-scenes in the historical reconstruction at the end of *MH* i.405-428. Similarly, only art historical merits receive attention when these pieces do get discussed (Villard 1964-65; *MH* ii.159-179; Villard 1981; cf. also Devambez & Villard 1979, for a polychrome pithos possibly made at Megara Hyblaia). Compare Osborne (1989: 322): "What humble pictures communicate may often be banal, and we may often misread them, but not to try to read them is to leave go of the one line of possible contact offered to us."

⁴⁵ Villard (1981: 137) maintains that itinerant artists were responsible for Megara Hyblaia's polychrome pottery, simply because few exports have actually been found in the west. Schaus (1988: 109), on the other hand, holds that, since the polychrome style derives, he argues, from Greek 'free' painting, the style was probably encountered in panhellenic sanctuaries and other key communication nodes in mainland Greece. It should be noted that Schaus has missed Tréziny's (1979: 43-44) suggestion that the production of a certain class of SG crater at Megara Hyblaia may have been carried out by Attic artists resident in south-east Sicily. If Tréziny is correct--the matter is far from resolved--this would lend more support to Villard's position.

ii.191), but it is reasonable to make the styles roughly contemporary with Aegean Greece, and likewise came to an end before the start of the sixth century (*MH* ii.192; *cf.* Schaus 1988: 107). The find circumstances of this ware at Megara Hyblaia have not allowed further precision in dating:

Les circonstances des découvertes n'apportent en effet que des indications assez vagues pour dater la céramique locale; faute d'associations dans les tombes avec des vases importés, on en est réduit à des repères stratigraphiques nécessairement moins précis (niveaux d'habitation ou remplissage de puits). (*MH* ii.141)

This passage represents the fullest information available on the context of the polychrome pottery discovered at Megara Hyblaia. It seems that the pots were used solely in settlement contexts: none had been found in a burial context up to the publication of *MH* ii, and none have emerged in subsequent excavations in the cemeteries, to judge from the silence of the excavators' reports.⁴⁶ But, even if completely true, we are quite badly informed of the settlement contexts, for these are not spelled out (a problem already encountered), not even the wells in question are stated, information which may have permitted the settlement contexts to be narrowed down somewhat.

A similarly frustrating lack of detail is met with quantification. While the excavators meticulously studied the imported pottery from the numerical viewpoint, the local material did not fare as well: "A la différence de la céramique importée, nous n'avons pas, pour la céramique locale, procédé à des dénombrements, série par série" (*MH* ii.189). Some 150 individual pieces (some made up of two or more joining sherds) are published in *MH* ii, though given the generally scrappy nature of the material it is unsafe to assume

⁴⁶ The well-preserved pot in the Louvre, thought to be of Megara Hyblaian manufacture (see below), may have been deposited in a tomb at Selinous (Devambez & Villard 1979: 13 with n. 2), though the context and provenance of this object are far from certain.

SCENE	SHAPE	REFERENCE*
hoplite and horseman	dinos	181.1 & 213
hoplite attacking fawn	krater	183.3-4 & 215.3-4
hunters and animals	oinochoe	<i>MH</i> iii.153.fig. 67
archer	krater	171.7
archer	krater	181.2
charioteering	krater (**)	185.5
charioteering	oinochoe	190.3
charioteering	oinochoe	190.4
charioteering	krater	170.11
spear throwing	krater	171.1
spear throwing	plate	180.4
men pulling rope	dinos	<i>MH</i> iii.152,fig. 66
<i>potniai theron</i>	pithos	<i>MH</i> iii.154-5,figs. 68-9
human body part	6 kraters (3**); oinochoe; olpai; 7? (1**)	169.6; 171.8; 179.1; 182.1-3; 183.1; 184.1,4-5; 185.2-4; 190.1-2
animals	5kraters (2**); 5 oinochoai (1**)	171.5-6; 172.3; 176.5;177.6,8-9 179.4-5; 181.3; 182.4
human and animal	krater	185.1
sceneless sherds	63 kraters (6**)	170.1-10; 171.2-4,9-11; 172.1-2,4- 10; 173; 174.1-7. 175.1-5; 177.4; 186.1-9; 187.1-8; 188.11-12; 189
sceneless sherds	27 oinochoai	176.1-4,6-15; 177.7,11-12; 190.5;191
sceneless sherds	7 amphorae (all**)	169.2-5; 178; 179.2-3
sceneless sherds	3 cups	177.1,3,10
sceneless sherds	3 plates	177.5; 180.2,5
sceneless sherds	2 lids	180.6-7
sceneless sherds	pyxis	177.2
sceneless sherd	aryballos	180.3
sceneless sherds	4?	180.1; 184.2-3,6

Table IV.1: Local Polychrome Pottery: scenes and shapes.
*Most references are to the plates in the *MH* ii volume, and a few in *MH* iii. The discussions of the plates in *MH* ii can be obtained by looking up the plate in the index (*MH* ii.201-220) to get the page reference(s) for the text.
**Indicates that piece was found in a votive context.

that they belong to as many whole vases.⁴⁷ The shapes known consist of kraters, oinochoai, olpai, amphorae, cups, plates, pyxides with lids, and aryballoi (*MH* ii.163 with n. 3; see table IV.1). Further polychrome examples have come to light since then (some appear in *MH* iii). The lack of quantifiable information given for the polychrome style renders numerical comparison with other contemporary wares impossible, though it is clear that, by its very nature, polychrome pottery would have stood out as exceptional objects of material culture.

In the discussion that follows the intention is to single out the 'diagnostic' figure-scenes. Such scenes are few in number, because well over half of the extant polychrome pieces preserve no scenes at all.⁴⁸

The first piece to be examined is a large fragment of a dinos: here a foot soldier is followed by a man mounted on horseback (fig. IV.1). The soldier dons a helmet, resembling possibly an early Corinthian type (compare Snodgrass 1964: pl. 14), with an elaborate plume attached to a crest rising vertically from the crown. In one hand the warrior holds a round shield with perhaps rivets of some kind around the edge of it; in the other hand he brandishes a spear which, like the shield, only partly survives. A small vestige of what appears to be body-armour remains, though not enough to allow further discussion. Behind this figure is another seated on a horse. The rider wears a cap and his

⁴⁷ About 20 pieces, or 7%, were found in votive contexts.

⁴⁸ The scenes and shapes of Megara Hyblaia's polychrome pottery are summarised in table IV.1. For classification purposes we are very much at the mercy of preservation of a piece. The guiding principle followed in my classification is theme. The various categories of table VI.1 do not overlap; in so far as it is possible, the content of every piece is summarised. Thus, for instance, the "human body part" and "animals" categories are different from the "human and animal" category, because in the case of the former either humans or animals are represented, whereas in the latter these two elements are represented together.

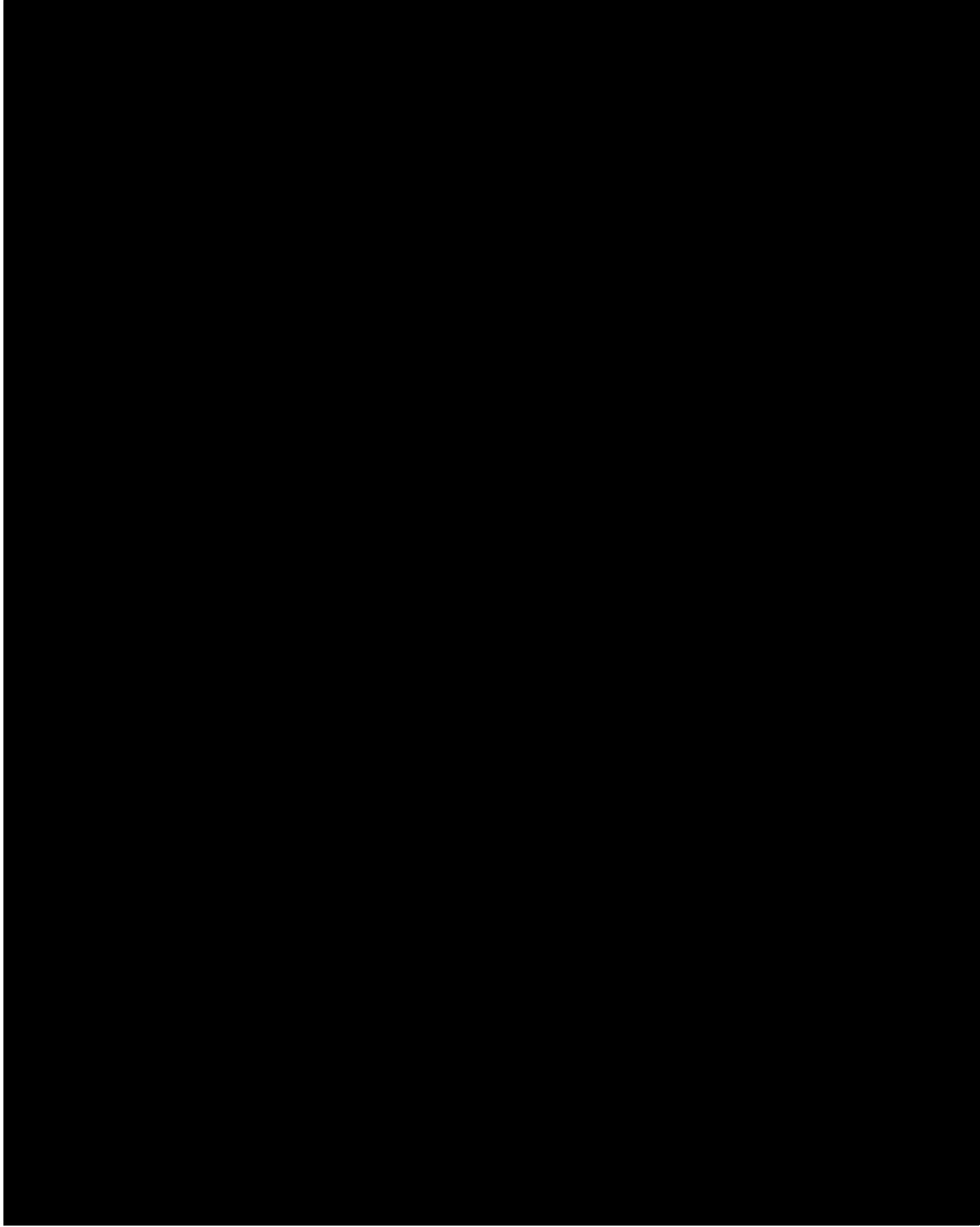


Fig. IV.1. Dinos fragment with hoplite and horseman (after *MH* ii, pl. 213).

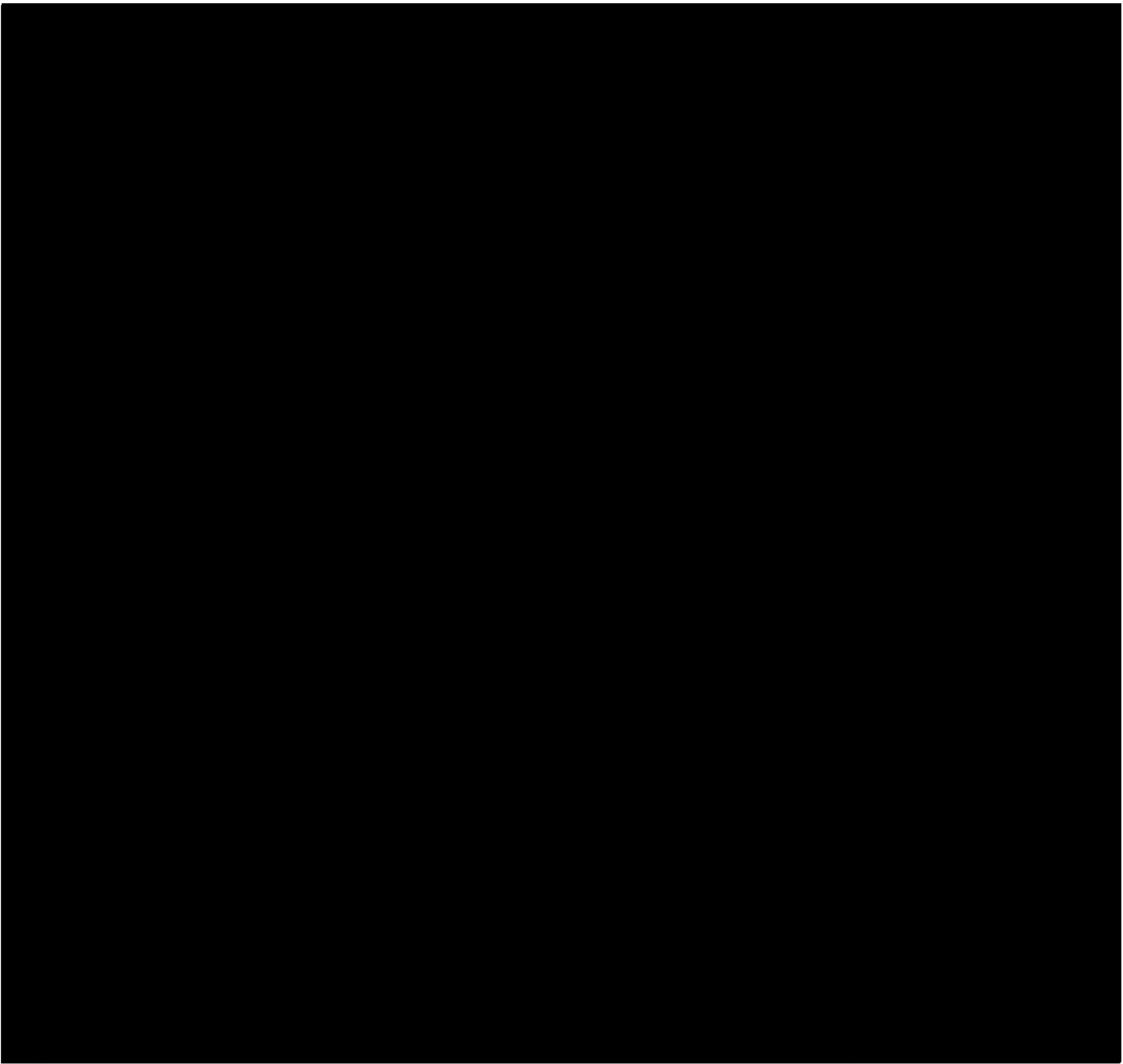


Fig. IV.2. Hoplite attacking a fawn (after *MH* ii, pl. 215.3-4).

dress, being shaded in completely, does not exhibit any well-defined features. The horseman holds the reins in one hand while with the other he prods the animal by means of a goad. This mounted figure may perhaps be the warrior's squire waiting behind his master engaged in a duel, judging from parallels of seventh- and sixth-century date (in Greenhalgh 1973: 85 fig. 45, 98 fig. 51).

On two fragments of a krater another foot soldier is shown attacking a fawn (fig. IV.2). The soldier is completely naked save for some armament (helmet and shield) and footwear. His helmet seems to be an early Korinthian type with slits for the eyes and largely covering the whole head except for the area around the nose and mouth for breathing purposes (Snodgrass 1964: 21 fig. 2a). The helmet-crest, in comparison with the preceding piece, is quite subdued, cropped low and extending right around the helmet itself. The shield held by the warrior is round, and could well be of the standard hoplite variety, to judge from the positioning of the arm, that is, bent, as if through an arm-band, and possibly grasping the hand-grip at the rim.⁴⁹ In his other hand the soldier holds a spear which is merely indicated by a substantial horizontal line.

A fragmentary oinochoe preserves a hunter surrounded by wild animals (fig. IV.3). With his bow and arrow the hunter takes aim at a feline directly in front of him, while to the hunter's back is a bristling boar. The hunter himself is bearded and unclothed, and carries additional arrows in a quiver on his back. The vertical line between the hunter and the boar may be a spear planted into the ground while the hunter's hands are occupied.

The theme of human and animal is also seen on an almost completely intact pot;

⁴⁹ A sixth-century funerary relief from the west necropolis, on display in the Museo P. Orsi in Siracusa (no inventory number given), depicts a helmeted warrior running in a race. The tombstone, seemingly unpublished, is further evidence of the hoplite at Megara Hyblaia.

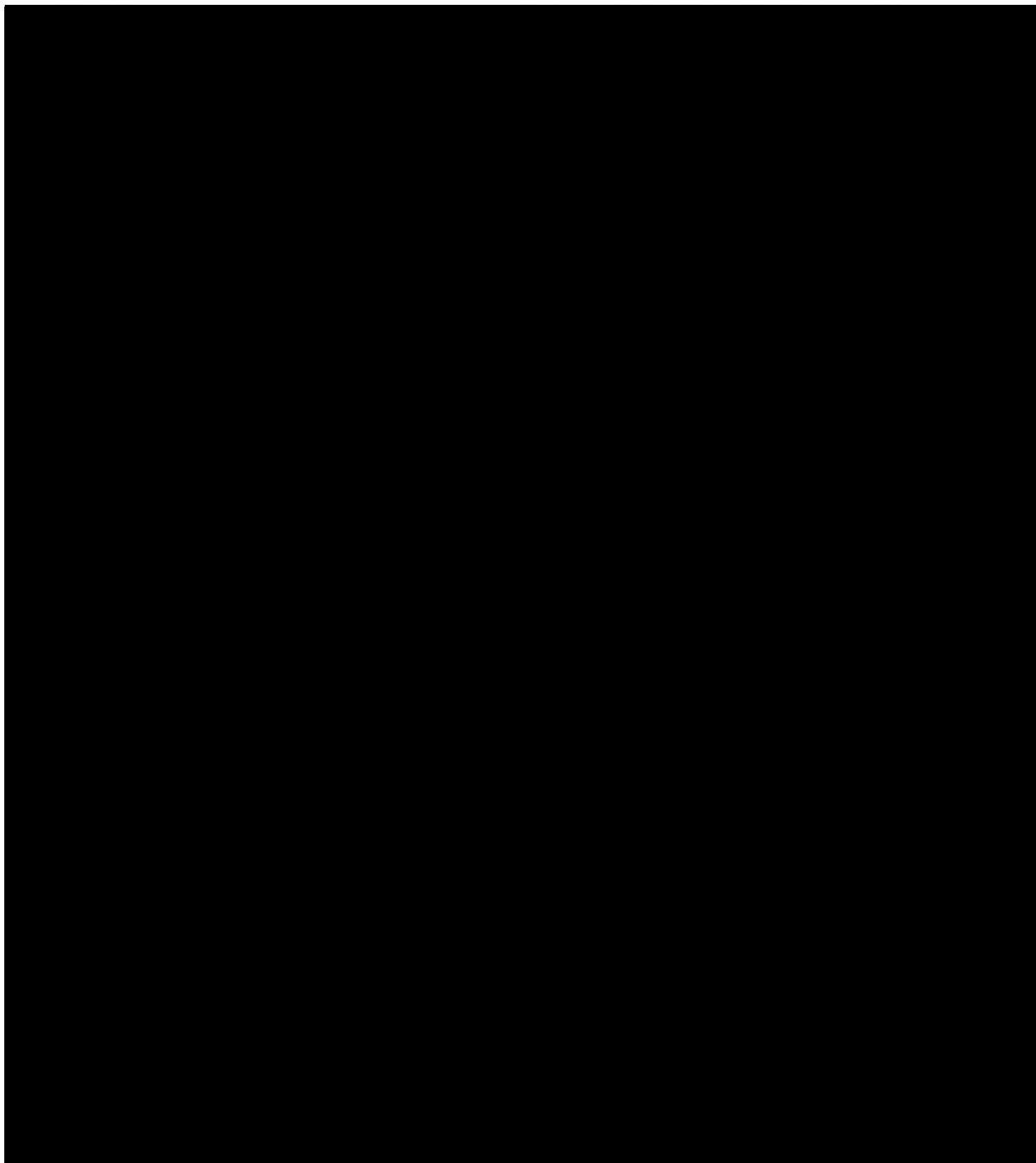


Fig. IV.3. Fragmentary oinochoe with hunting scene (after *MH* iii.153, fig. 67).

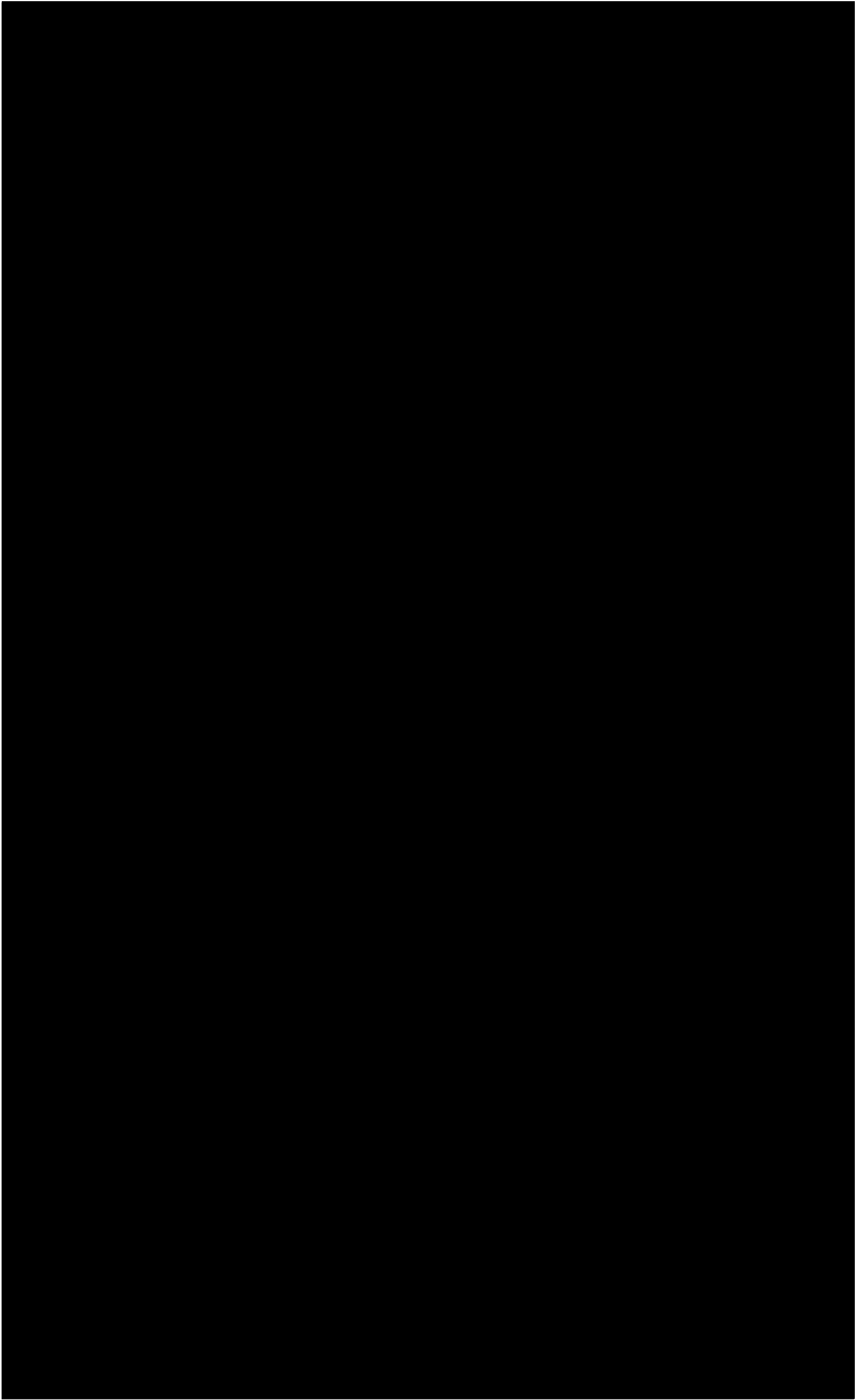


Fig. IV.4. Two sides of *potniai theron* scene on large vase (after *MH* iii.154-155, figs. 68-69).

the scene is of the so-called *potniai theron* type (fig. IV.4). The imagery is located in the upper handle zone. On one side are two goddesses, in elaborate dress, and on the other side are two horses in heraldic pose with a third, though smaller, horse off to one side of the main pair. The lower half of the pot is made up of three zones containing a variety of designs.

Another dinos fragment shows at least five clothed men, many of them bearded, pulling on a rope (fig. IV.5). The figure furthest to the left is the last in the line, for the rope ends with him. There is no trace of what is being pulled.

Animals and mythological themes can be seen on the Louvre pithos, which may have been made at Megara Hyblaia and found in a tomb at Selinous (Devambez & Villard 1979). The figure-scenes are restricted to the upper half of this pot, in two zones of unequal size (fig. IV.6). The handle zone has a frieze of animals (boar and ibex). The other zone consists of six metopes, separated from one another by four vertical lines. Two of these metopes each contain a centaur kidnapping a woman; the two metopes under the handles each depict two sphinxes facing each other. The remaining two metopes contain different subject matter: one of them shows Theseus killing the Minotaur, and the other may be Apollo and Herakles' dispute over the tripod.

The rest of the figure-scenes are more fragmentary and hence less explicit in detail; nevertheless they provide snippets of a general kind of the sort of things once depicted (table IV.1). There are four sherds with parts of chariots, two with spear throwing, two more with archers, fourteen depicting some body part, ten with some animal, and one with human and animal.

What can these figure-scenes say about society at Megara Hyblaia? Why has the subject matter represented been chosen, and what sort of ideals and aspirations do they

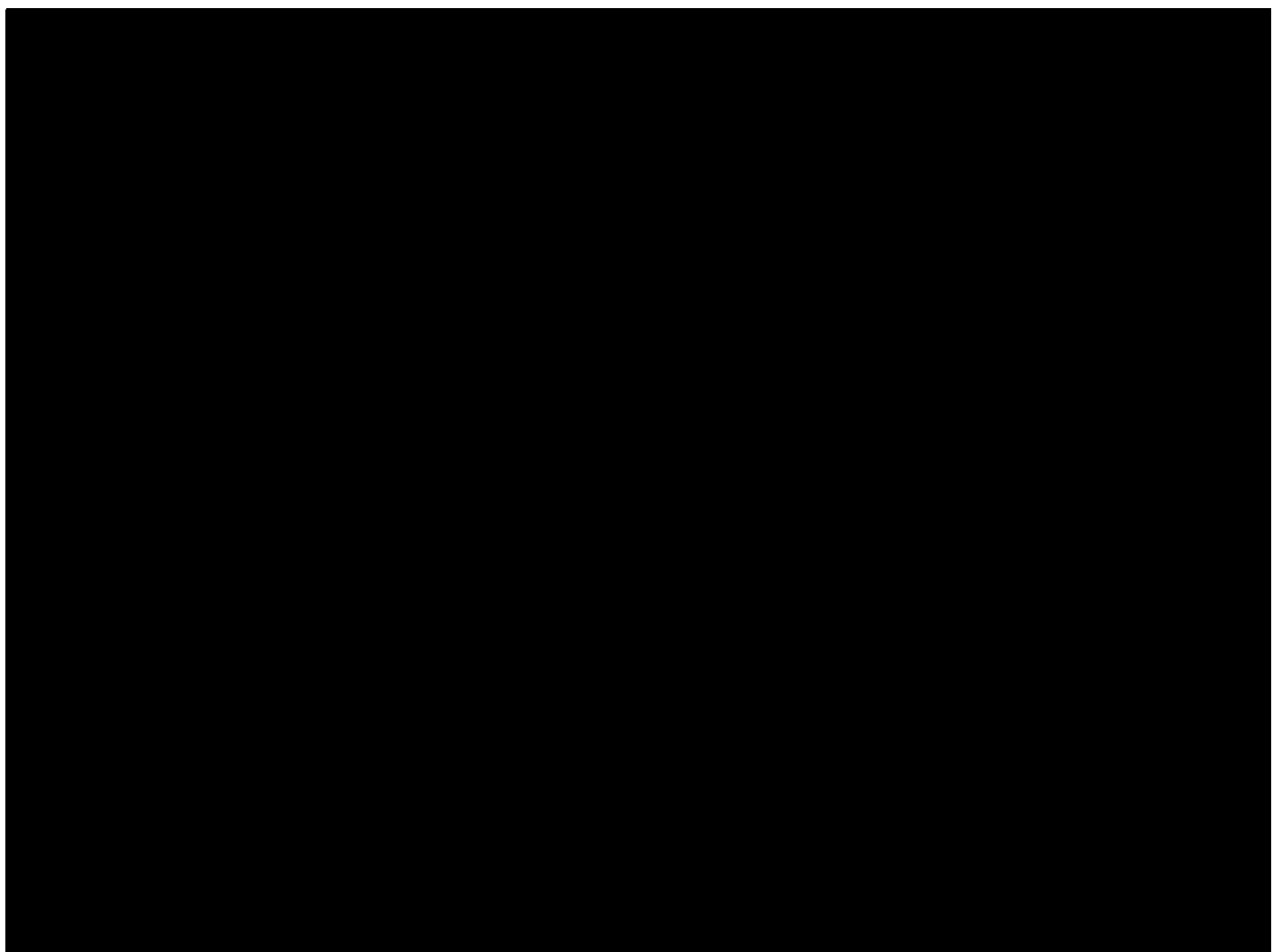


Fig. IV.5. Dinos fragment showing men pulling a rope (after *MH* iii.152, fig. 66).

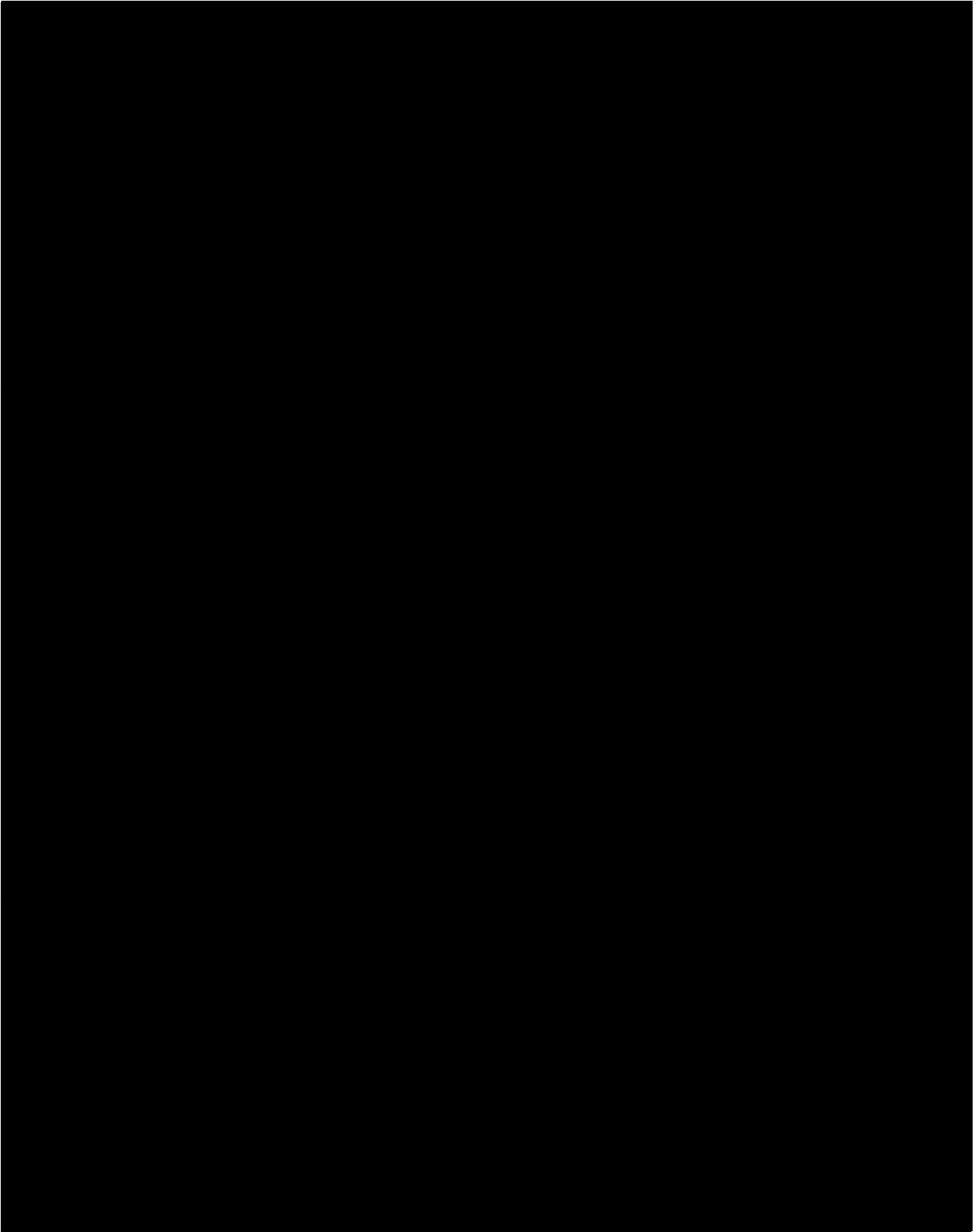


Fig. IV.6. Polychrome pithos in the Louvre (after Devambez & Villard 1979: 17, pl. I).

suggest (Osborne 1991: 261-262)?

The scenes can depict as their subject matter either the world of mythology or real life. The two hoplite scenes seem to represent situations taken out of real life; mythology is found on the Louvre pithos, and possibly on the piece with the five men pulling a rope (an allusion to the Trojan horse?: *MH* iii.156). Categorising the rest of the material in such a way is impossible in view of its fragmentary nature; however, as Osborne (1991: 261-262) points out, regardless of whether we can, or cannot, classify imagery as mythological or real-life, meaning may still be extracted by concentrating on the values the images portray.

The images place much emphasis on things martial and on animals. The hoplite is represented; in itself this implies a certain segment of society (upper third?: Murray 1993: 125) wealthy enough to afford such armour. But the appearance of a horse--a status symbol *par excellence*—alongside one of the hoplites must raise the level of wealth even higher.⁵⁰ The depiction of hoplites could be brought into connection with the spread of hoplite warfare, which spread from mainland Greece in the early seventh century to central Italy in the late seventh century (Cornell 1995: 184). In the intervening decades, hoplite warfare would have been transmitted to Megara Hyblaia, and its depiction on polychrome pottery could have served to reinforce with images not only the warrior ethos but also the social position required of such form of combat. Other implements of war are found, spears, shields, bows and arrows, and chariots; with these items people are engaged in fighting (whether only on military exercises or in actual combat is uncertain) and in hunting wild animals. Some of the animals, like the panther on the fragmentary

⁵⁰ For the economics of the horse, see Burford (1993: 72-74).

oinochoe (fig. IV.3), are truly fantastical; such imagery may well have been intended to raise connotations between the real-life users of the pot and a mythical world where individuals of higher abilities hunt exotic creatures. The decision to depict on the *potniai theron* scene the taming of horses, presumably for divine use, is also significant, especially since this animal also appears in one of the few scenes in which real life certainly seems to be represented (see fig. IV.1). Once again, the imagery is suggestive, in this case perhaps intended to associate the symbols and actions of the immortals with those of the mortals.

The function of polychrome pottery is also revealing. There is definite patterning in shapes: kraters, oinochoai, amphorae, and dinoi predominate, though cups, plates, and other shapes are also known (table IV.1). These pots, moreover, are always found in settlement contexts (habitation and votive), and two occasions when they would have been employed can be suggested: the *symposion* of the Theognidean corpus readily comes to mind as one occasion,⁵¹ and the pouring of libations, perhaps wine, on religious occasions the other. Both these occasions denote the same status connotations raised by the figure-scenes themselves.

The Theognidean corpus and the iconography of polychrome pottery go some way in revealing the concerns, aspirations, and lifestyle of oligarchic society at Megara Hyblaia. This sort of information provides a backdrop with which to consider the remaining evidence for the third quarter of the seventh century.

Population-growth seems to have continued, perhaps increasing from 1,125 to 1,375 people (annual increase of 0.81%) (table III.2). Material differences also continue

⁵¹ Certain amphorae found at Megara Hyblaia suggest that wine was imported (see ch. V).

to be found amongst the houses. Only house 40,2a is available for comparison, not with other houses but with itself.⁵² This house was originally constructed in the first quarter of the seventh century, and consisted of one room measuring 10.1 m.² In this quarter-century, the house was renovated, now becoming a structure of four rooms occupying a surface area of 52.98 m.² House 40,2a furnishes a rare glimpse of the changing fortunes in material circumstances of one of Megara Hyblaia's archaic houses.

In the mid-seventh century the settlement was transformed in a new way. Six monuments and a sacred area (unpublished) were constructed in the third quarter of the seventh century (table II.10: nos. 1-6, 10).⁵³ The largest is building i at about 988 m.², and the others are considerably smaller, ranging between 40 and 245 m.², and include the *heroon*, two temples, and a *stoa*. None of these monuments is sufficiently well preserved to estimate the total expenditure involved in their construction. What led to this wave of monument-building? As the French excavators point out, "Le développement de la ville signifie évidemment un accroissement démographique important..." (MH i.411). Although they do not elaborate on this observation, they touch upon a fundamental issue, namely the phenomenon of demographic urbanisation.⁵⁴ De Vries (1984: 11) defines demographic urbanisation as urban growth that occurs when there is a shift in population from a rural to an urban location. Such a population shift was postulated earlier in this

⁵² Structure 22,13a-c is bigger than house 40,2a, but the former's status as a house is uncertain (table II.5).

⁵³ In these totals I include Orsi's temple (or altar), number 10 of table II.10, which, although broadly dated to 700-600, seems best understood as part of the building activity that began in the mid-seventh century.

⁵⁴ Frézouls (1970) has noted the phenomenon (unfortunately he only ever published the abstract of what could have made an important study). The concept as such is absent in Demand (1990), although she inevitably unwittingly touches upon it.

chapter, and the stimulus that demographic increase could have provided should not be overlooked. Part of the responsibility must also be ascribed to the growth and development of society, particularly to the rise of personal wealth, which funded the monument-building, and to the competition created by political culture.

It was out of an active and growing society that the desire to expand abroad, with Selinous in south-west Sicily, emerged (see ch. VI below). Much ink has been spilled on the reasons for Selinous' foundation; the usual scenarios (overpopulation and trade) have at one time or another been adduced (see Martin 1977; de la Genière 1977). Elsewhere I have argued that overpopulation, as traditionally defined--too many people supported by not enough land--is hardly an appropriate concept to apply to Megara Hyblaia in the third quarter of the seventh century (De Angelis 1994). Parisi Presicce (1984: 57-58) has hypothesised that the Megarians, in search of metals, obtained wealth in western Sicily--whence later the foundation of Selinous. Parisi Presicce, however, does not take this hypothesis further by elaborating on the players and products he envisages in these wealth-generating expeditions. Had he at any rate done so, the details would have remained unprovable speculations at best. Instead of swinging over to the trade argument, I take a more general line, arguing that the foundation of Selinous was part of a process of acquisition, stimulated by the Megarian desire for a bigger share of power in Sicily. It is against this sort of background, I believe, that the foundation of Selinous must be seen. I should like to add another dimension to the original form of this argument.

In the previous chapter, the "anthropological" effects of population growth were outlined: when population size surpasses certain thresholds, changes occur in societal structure, such as the emergence of stratification and the splitting away of groups to form separate communities. Population at Megara Hyblaia was growing at the same time as

Selinous was founded: between 675 and 625 BC population increased from 675 to 1,375 people. Yet this growth hardly constituted overpopulation as customarily defined, that is, surplus population unsupportable by local environmental conditions (see above). What population growth may have done is to induce social stress, creating a desire amongst certain individuals to branch out elsewhere in Sicily.⁵⁵ This sort of reasoning has only rarely been applied to Greek colonisation:

In the past much has been made of the pressure for land or the desire for trade. I would argue that while these factors affected the locations chosen by the 'colonists' (i.e. the need for cultivable land and/or a good harbour would be significant factors in siting a new foundation), they were not the main reason for their being 'sent'. Rather, the Greek mainland and island communities were subject to the kinds of natural fission within the population to which 'tribal'-type societies are prone. This kind of splintering is often the result of population pressures. Unlike urban societies which are capable of sustaining very large populations, less complex societies often have difficulty supporting significant population growth. Moreover, they tend to lack the social hierarchies capable of organising large populations and find it difficult to survive major power struggles intact. Commonly the stresses in society lead to the foundation of new settlements. (Herring 1991: 35-36)

Although Herring directs these remarks specifically at the colonial movement out of Aegean Greece, they can also be applied to the sub-colonisation as well. I suggest that the population growth detectable at Megara Hyblaia around the mid-seventh century may have similarly played some part in creating a need for expansion, a need for certain individuals to break away and acquire new resources and spaces elsewhere.

III. 625-600 BC

The archaeology of the last quarter of the seventh century presents more of the

⁵⁵ Compare Malkin (1994a: 2-8) on the political aspects of *stenokhoria*.

same as the preceding period. Population appears to have grown from about 1,375 to perhaps 2,075 people (annual growth-rate of 1.66%) (table III.2). This increase in numbers led to the construction of more new houses, whose inhabitants had different means, to judge from the size of the houses. In the surviving settlement sample, the upper end of the scale is house 33,35-7, which measures 42.78 m.² divided between two rooms. Houses 63,2 and 14,23 are the next largest. These houses consist of, respectively, three rooms (38.16 m.²) and one room (30.74 m.²), providing more evidence that wealth should not be measured by the number of rooms in a house. This is further supported by four two-room houses (50,9; 47,4-5; 38,14-17; 33,30-32) which measure between 10 m.² and 38 m.² (table II.6). Monument-building went on as well, though less intensely than before, with a second *stoa* and a third temple coming into existence (table II.10: nos. 7-8). The temple is 155.3 m.² in size. A fourth temple, of very modest size (66 m.²) can only be dated to within the half-century 650-600 (table II.10: no. 9).

Our knowledge of seventh-century Megara Hyblaia ends with an episode involving expansion on the home front. This incident is recorded in one of Polyainos' (v.47) strategems, and it concerns a frontier dispute with Leontinoi:

Παναίτιος, Λεοντίνων Μεγαρεῦσι
πολεμούντων περὶ γῆς ὄρων, πολεμαρχῶν,
πρῶτον μὲν τοὺς πένητας καὶ πεζοὺς τοῖς
εὐπόροις καὶ ἱππεῦσι συνέκρουσεν, ὡς ἐκείνων
πλεονεκτούντων ἐν ταῖς μάχαις, αὐτῶν δὲ
πολλὰ ἐλαττουμένων· ἔπειτα δὲ καὶ πρὸ τῶν
πυλῶν ἐξόπλισιν ποιήσας, τὰ μὲν ὅπλα
ἀριθμεῖν καὶ δοκιμάζειν ἐπειρᾶτο, τοὺς δὲ
ἵππους τοῖς ἡνιόχοις παραδοὺς ἐκέλευσεν
ἄγειν ἐς νομήν. Ἐξακοσίους δὲ πελταστὰς
ἔχων εὐτρεπεῖς πρὸς τὴν ἐπανάστασιν, τῷ μὲν
τούτων ἄρχοντι τὴν ἐξαρίθμησιν τῶν ὅπλων
ἐπέτρεψεν· αὐτὸς δὲ ὡς ὑπὸ τὰ δένδρα σκιᾶς
δεόμενος ἀνεχώρησε καὶ τοὺς ἡνιόχους
ἔπεισεν ἐπιθέσθαι τοῖς δεσπόταις. Οἱ δὲ

ἐπιβάντες τῶν ἵππων ἐπέδραμον αὐτοῖς, καὶ τὰ ὅπλα ἐξαριθμοῦμενα ἀρπάσαντες γυμνοὺς καὶ ἀόπλους ἐφόνευσαν. Καὶ οἱ πελτασταὶ δὲ συνεφήψαντο τοῦ φόνου, καὶ πολλῇ σπουδῇ δραμόντες κατελάβοντο τὴν πόλιν καὶ Παναίτιον τύραννον ἀνηγόρευσαν.

When the inhabitants of Leontinoi were at war with the Megarians over boundaries of land, Panaitios was *polemarkhos*. He was the first to bring into conflict the poor infantry with the rich cavalry, on the grounds that the latter were being arrogant in battle and the former were being worsted. He then marshalled the army before the city gates; he tried to reckon up the arms and approve them. He gave orders to the servants assigned to the horses to bring them to fodder. Having charge of 600 peltasts ready for rebellion, he entrusted to their commander the counting of the arms, while he himself, wanting to shade beneath trees, withdrew; and he persuaded the servants to turn on their masters. And the servants mounted the horses and attacked them, and having seized the arms which had been counted they slaughtered the unarmed men. The peltasts, too, consented to the massacre, and they swiftly made for the city, capturing it and proclaiming Panaitios tyrant.

In this passage, the information of concern appears incidentally, merely setting the stage for what follows. The focus of attention is how Panaitios set himself up as tyrant of Leontinoi, with the (purported) precise steps leading to the usurpation of power the central issue. It seems doubtful whether much of the trickery accredited to Panaitios can be regarded as genuine; the mention of peltasts, for instance, at such a date is anachronistic (Berve 1967: ii.593; Berger 1992: 26; Luraghi 1994: 12-13); other details, moreover, are suspect because they almost certainly were moulded or fabricated to conform to the ruse topos (Dunbabin 1948: 66). In Eusebios' chronographical work, Panaitios' tyranny is dated to the start of Olympiad XLIII, or 608 in absolute terms (ed.

Schoene, pp. 90-91).⁵⁶ The authenticity of Panaitios' date has raised doubts in the past (Ziegler 1925: 2043), but there is no reason to question the ancient tradition.⁵⁷ But what about the war with Megara Hyblaia? It is extremely unlikely such an incidental detail would have been created from nothing, as simply a way to introduce Panaitios' rise to power. The border dispute may thus be regarded as genuine testimony of events occurring towards the end of the seventh century. Can we go further? Did, for instance, the border war with Megara Hyblaia come to an end as a result of Panaitios' usurpation of power, the tyrant thinking it best to concentrate his efforts on cementing his position? If so, did Megara Hyblaia come out further ahead in terms of territorial gains?⁵⁸ It is impossible to answer these questions; the outcome and even, quite frankly, the nature of the dispute itself remain unknown.

The Sixth Century

The nature of the archaeological record shifts in the sixth century: the settlement evidence largely dries up by the standards of the previous century. A few new monuments and houses were erected, but it is notably in the necropoleis of Megara Hyblaia that we can trace further social definition around the mid-sixth century.

A fragment of Philistos (*FGrH* 556 F5) sets a possible scenario:

Συρακόσιοι δὲ παραλαβόντες Μεγαρεῖς καὶ

⁵⁶ Jerome's version is slightly earlier at 615 (ed. Fotheringham, 171). The two Aristotelean passages on Panaitios (*Politics* 1310^b29; 1316^a34) are of no help in chronological matters.

⁵⁷ Panaitios is usually regarded as an early outlier to the full appearance tyranny in Sicily in the third quarter of the next century (see generally Finley [1979: ch. 4] and Luraghi [1994: 11-58, 119-186, 231-373]; for Panaitios in particular, see Berve [1967: i.129, ii.593] and Luraghi [1994: 11-20]). Special circumstances at Leontinoi may have acted as a catalyst, precipitating the crisis recorded by Polyainos (Berger 1992: 26).

⁵⁸ A location for the scene of the dispute could be suggested (see ch. V, containing full discussion of the territory).

Ἐνναίους, Καμαριναῖοι δὲ Σικελοὺς καὶ τοὺς
 ἄλλους συμμάχους πλὴν Γελώιων
 ἀθροίσαντες· Γελώιοι δὲ Συρακοσίοις οὐκ
 ἔφασαν πολεμήσειν· Συρακόσιοι δὲ
 πυνθανόμενοι Καμαριναίους τὸν Ὑρμινον
 διαβάοντας.

The Syracusans had the Megarians and Ennaians on their side, while the Kamarinaians mustered the Sikels and other allies with the exception of the Geloans. The Geloans said that they would not wage war with the Syracusans. The Syracusans [*sc.* went to war] on learning that the Kamarinaians had crossed the Hyrminos.

The above episode concerns Kamarina's revolt from Syracuse. Ancient authorities are unanimous in setting the foundation of Kamarina at the very end of the sixth century.⁵⁹ Forty-five to fifty years later Kamarina, attempting to acquire a more independent status for itself, was razed to the ground by Syracuse. To judge from the Philistos passage, Kamarina's revolt was not an internal dispute between two kindred cities; other Sicilian cities also participated in what may loosely be dubbed a Lelantine-style war.

Can we trust the Megarian connection in this affair? Pais (1894: 560-564) cautiously emended, on no good grounds, Megara Hyblaia's involvement, but majority opinion is not with him (*cf.* *MH* i.416). Yet the excavators of Megara Hyblaia have ended discussion after having accepted that Megara Hyblaia sided with Syracuse (*MH* i.416; *MH* iii.113). Does such an alliance say anything about Megara Hyblaia? At this time Syracuse's constitution was oligarchic, with power in the hands of the *gamoroi*.⁶⁰ It is rather unlikely that a non-oligarchic regime would have entered into an alliance with an oligarchic one, and then go on to fight a war together, unless both shared similar political

⁵⁹ Thucydides vi.5; Eusebios ii.92 ed. Schoene; p. 175 ed. Fotheringham; Σ Pindar, *Olympian* v.16.

⁶⁰ For these *gamoroi*, see Herodotos vii.155; Aristotle fr. 586 Rose. *Cf.* also Dunbabin (1948: 57-59); Loicq-Berger (1967: 35-37); Lepore (1970: 142-147).

sentiments. Dunbabin (1948: 59) interpreted Megara Hyblaia's siding with Syracuse in the political arena as a sign that the former was politically dependent on the latter. It may be rash to go to this extreme, instead of coming to the much simpler conclusion that the two cities shared similar political ideologies.⁶¹

Archaeology documents a spurt of status investment, in both the cemeteries and settlement, at this same date. Rescue excavations conducted north of the ancient city brought to light a group of 15 tombs, at least five of which stand out for their ostentation (Gentili 1954b).⁶² The tombs were divided into two clusters, which lined the remains of an ancient road (Gentili 1954b: 85, fig. 5, 97-98). The larger cluster, found on the western side of the road, contained nine tombs, and that to the east of it the remaining six. The ostentatious tombs are found in both clusters. The oldest of these tombs is I, of mid-sixth-century date, located in the eastern cluster (Gentili 1954b: 99-103). The body was interred in a hypogeic cella with two pots, but what makes the tomb outstanding is the statuary, a *kourotrophos*, which once crowned it. The statue depicts a seated mother suckling twins. Such a piece must rank as one of the finest surviving works in Sicily at this time, and it certainly is exceptional amongst all the finds from the cemeteries of Megara Hyblaia.⁶³

⁶¹ See Burford (1993: 29) on the spectrum of changes in land ownership and political structure.

⁶² On the north necropolis generally, see Cébeillac-Gervasoni (1975: 7-9, 17-18). An urn burial (tomb G) containing a LPC aryballos is the oldest interment in the necropolis (Gentili 1954b: 97), but the majority of tombs, where datable, belong to after the mid-sixth century.

⁶³ For the sculpture of Megara Hyblaia, see the overview of Voza (1980: 110-112). A strong Ionic element runs through this sculpture, for which see Barletta (1983: 137-168). The *kouros* of the doctor Somratidas discovered at Megara Hyblaia (Bernabò Brea & Pugliese Carratelli 1946-48) could indicate that Megara Hyblaia's aristocracy patronised not just artists. On the Ionic influences at Megara Hyblaia, see further discussion in ch. V.

The other four tombs belong to the western cluster, and they are located within 2 m. of one another. The oldest tomb in this group is D, datable to the third quarter of the sixth century (Gentili 1954b: 89-90). The deceased was deposited in a sarcophagus, whose lid had disappeared long before the sarcophagus was discovered, and as a result many of the grave-goods, consisting primarily of imported pottery, were fragmentary. The most exceptional item found amongst these grave-goods is a gold ring, a rare commodity at Megara Hyblaia, which immediately bestows importance upon the tomb. Tomb E, a rectangular chamber cut into the rock, had an impressive superstructure in the form of a Doric edifice, which measured 3.5 m. by 2.2 m. (Gentili 1954b: 90-96). Part of the frieze survives as a large block with two metopes and three triglyphs. The very fragmentary remains of a marble *kouros*, which formed part of the funerary complex, were also discovered. The grave-goods consisted solely of pottery, mostly Attic imports, which allow us to date the tomb to the late sixth century. Of similar date is tomb C, a hypogeic cella with four large slabs acting as a lid (Gentili 1954b: 85-88). Inside numerous objects had been placed around the body: at the head and feet five lydia and four pots respectively; to the left of the body two iron double-edged axes; to the right an arrowhead and olpe, both in bronze. A small gold ring was found on the deceased's left hand. Tomb F is a second rectangular rock-cut chamber, which, like tomb E, seems to have once supported architecture of some kind, judging from a column (at least 1.1 m. high) discovered with it. The grave contained three pots and two iron swords, the rarity of which is a further indication of its uniqueness. The final spectacular find in the north necropolis is a fragment of an equestrian statue group, dated to the second half of the sixth century, found between tombs B and H (Gentili 1954b: 109-110). The tomb with which this sculpture was originally associated is unknown.

What makes this group of tombs in the north necropolis conspicuous is their prominent position along the roadside, their spatial concentration,⁶⁴ and the amount of energy and wealth invested in them. In the south necropolis, Cébeillac-Gervasoni (1975: 21, 32-34) noted a similar set of features, which also began to appear from the mid-sixth century. We lack proper publication of the material, but according to preliminary reports there exists a small number of ostentatious tombs lining what appears to have been the ancient road between Megara Hyblaia and Syracuse (*cf.* Shepherd 1995: 59). These tombs are likewise conspicuous by their monumentality (one measures 2.08 by 0.86 m.), by the wealth of their grave-goods, and by their spatial distinctness. We may, therefore, take this second concentration of tombs as belonging to the same phenomenon at present better documented in the north necropolis (Shepherd 1993: 57).

This desire for grandiose expenditure is also found in the world of the living. A further wave of monument-building takes place in the period 550-525, during which two possible temples and the *prytaneion* come into being (table II.10: nos. 12-14). The construction of the latter is particularly interesting because this edifice would have served as seat of social gatherings and banquets, and we may connect the appearance of the *prytaneion* as a sign of élite cultural investment (see generally Nenci 1989).

Three newly built houses also call for comment.⁶⁵ One (33,6a-b) was constructed in the second quarter of this century (575-550), and the other two (33,13-16; 33,27a-

⁶⁴ On its own spatial grouping can mean various things, but when coupled with indications of elevated status it may taken to indicate the concentration of group identity (Wason 1994: 101-102).

⁶⁵ The excavators were not completely sure about the house status of the second two, and tentatively identified them as boutiques connected with a nearby temple. In physical make-up they fit in well as houses, and in the discussion that follows I cautiously take them to be houses.

b+42,10c) at some point in the second half of the century (550-500) (table II.9). These houses were constructed in masonry styles 7 and 8, which up to this point were commonly reserved for monuments (see fig. II.3; *cf.* *MH* i.301 n. 1). House 33,6a-b comprises two rooms with a minimum surface area of 33.6 m.² Its outer walls were built exclusively in masonry type 7, while the internal partition wall consisted of masonry type 3 (*MH* i.84). The other two houses each consist of three rooms on about 41-44 m.² Structure 33,27a-b+42,10c was built entirely in type 7 masonry, while structure 33,13-16 combines "ordinary" type 3 masonry for two walls and monumental type 8 masonry for the rest (south and west walls, facing onto streets A and D4). There are not many sixth-century houses with which to compare how widespread was the use of monumental masonry in domestic contexts, but given the "energy-intensive" (Wason 1994: 138) nature of the masonry types in question, we must certainly entertain the possibility that some individuals at Megara Hyblaia felt the need to make their house(s) more distinct than others. It is also interesting to note that the latter three structures are spatially concentrated north of the *agora* in blocks 13 and 16, in the same "neighbourhood" (a matter of metres away from one another). As in the necropoleis, we may be witnessing the concentration of group identity in the settlement as well.

In both the world of the living and dead simultaneously, therefore, clear signs of wealth investment begin to appear around the mid-sixth century. The literary evidence dealt with earlier, both Philistos and the Theognidean corpus, indicate the existence of an oligarchic regime at Megara Hyblaia from at least the mid-seventh century, and it is the latter group that was doubtless responsible for the conspicuous consumption evident in the archaeological record a century later. The source of this wealth may have come from spoils of war that Syracuse won with the aid of Megara Hyblaia. To be more speculative,

the status investment may have been a reaction of a few well-off individuals faced with worries about new wealth met time and again in the Theognidean corpus. In any case, the mid-sixth century seems to have been a time of social change at Megara Hyblaia, which may have set further apart the group about whom we hear so much in the city's final hour.

The end of archaic Megara Hyblaia

The demise of Megara Hyblaia is the only matter that can be discussed for the early fifth century.⁶⁶ For our information about this event we rely solely upon three different ancient writers, Thucydides (vi.4.2), Herodotos (vii.156.1-2), and Polyainos (i.27.3), who supply varying quantities of information, which, even when combined, provides a far from complete narrative.⁶⁷

All three of these writers agree on the agent of destruction, viz. Gelon, tyrant of Syracuse. As to the date of this affair, only the chronological indications contained in Herodotos allow the downfall of Megara Hyblaia to be situated more precisely within Gelon's rule. The tyrant committed the deed between 485 and 480, with 483/2 being the likeliest date.⁶⁸ Just how the city came to an end is found in Herodotos and Polyainos,

⁶⁶ A late archaic inscription from Olympia was once thought to refer to Megarian exiles at Selinous. However, the situation has now been shown to be the reverse, and the inscription is accordingly discussed as part of Selinous' socio-political history (see ch. IX).

⁶⁷ For possible archaeological traces of this destruction, see Orsi and Cavallari (1890: 913-916); Orsi (1895b: 308); *MH* iii.114.

⁶⁸ For discussion, see Dunbabin (1948: 416-417, 435); R. Van Compernelle (1959: 316 n.2, 420-421). At first sight, it would appear that Thucydides also provides chronological information pertinent to the issue at hand. This is not the case, however. What Thucydides (vi.4.2) actually says with regard to chronology is that Megara Hyblaia existed for 245 years before Gelon annexed the city and its territory to his realm. If these 245 years are added to 483/2 (the best candidate for the destruction of Megara Hyblaia), we arrive at a foundation-date of 728/7. It is incorrect to take this foundation-date and work forward in time, reaching a destruction date of 483/2, for that would be circular argumentation. Thus, although Thucydides, and Polyainos too, ascribe the demise of Megara Hyblaia to a rather specific point in time--the tyranny of Gelon--for the present purpose this is still quite general.

though their stories are at variance. Herodotos (vii.156.1-2) records the following particulars:

ὁ δὲ ἐπεῖτε παρέλαβε τὰς Συρηκούσας, Γέλης μὲν ἐπικρατέων λόγον ἐλάσσω ἐποιέετο, ἐπιτρέψας αὐτὴν Ἰέρωνι ἀδελφεῷ ἑωυτοῦ, ὁ δὲ τὰς Συρηκούσας ἐκράτυνε, καὶ ἦσαν οἱ πάντα αἱ Συρήκουσαι. αἱ δὲ παραυτίκα ἀνά τ' ἔδραμον καὶ ἔβλαστον· τοῦτο μὲν γὰρ Καμαριναίους ἅπαντας ἐς τὰς Συρηκούσας ἀγαγὼν πολιήτας ἐποίησε, Καμαρίνης δὲ τὸ ἄστυ κατέσκαψε, τοῦτο δὲ ὑπερημίσεας τῶν ἀστῶν τῷ τὸ τοῖσι Καμαριναίοισι ἐποίησε· Μεγαρέας τε τοὺς ἐν Σικελίῃ, ὡς πολιορκεόμενοι ἐς ὁμολογίην προσεχώρησαν, τοὺς μὲν αὐτῶν παχέας, ἀειραμένους τε πόλεμον αὐτῷ καὶ προσδοκῶντας ἀπολέεσθαι διὰ τοῦτο, ἀγαγὼν ἐς τὰς Συρηκούσας πολιήτας ἐποίησε· τὸν δὲ δῆμον τῶν Μεγαρέων, οὐκ ἐόντα μεταίτιον τοῦ πολέμου τούτου οὐδὲ προσδεκόμενον κακὸν οὐδὲν πείσεσθαι, ἀγαγὼν καὶ τούτους ἐς τὰς Συρηκούσας ἀπέδοτο ἐπ' ἐξαγωγῇ ἐκ Σικελίης. τῷ τὸ δὲ τοῦτο καὶ Εὐβοέας τοὺς ἐν Σικελίῃ ἐποίησε διακρίνας. ἐποίεε δὲ ταῦτα τούτους ἀμφοτέρους νομίσας δῆμον εἶναι συνοίκημα ἀχαριτώτατον. τοιοῦτῳ μὲν τρόπῳ τύραννος ἐγεγόνεε μέγας ὁ Γέλων.

When he had gained Syracuse, though still ruling Gela he made less account of it, entrusting it to Hieron his brother. Syracuse, on the other hand, he made stronger: Syracuse meant everything to him. Soon the city sprang up and flourished, for this he brought all the inhabitants of Kamarina to Syracuse and made them citizens, razing also the city of Kamarina. He carried out the same act as he had done to the Kamarinaians to more than half the people of Gela. As for the Megarians of Sicily, when they were under siege surrendered themselves; he brought the 'fat cats' [*i.e.*, the rich], who had gone to war with him and who expected to perish on this account, to Syracuse, making them citizens. As to the Megarian populace, who had not been jointly responsible for this war nor expected to suffer any harm, these he also brought to Syracuse and sold them [*sc.* as slaves] for exportation outside Sicily. This very same turn--by separating them [*sc.* rich and

poor]--he likewise carried out on the Euboians of Sicily. He thus served both because he thought that the populace would make an unpleasant housemate. Gelon became a great tyrant in this way.

Herodotos recounts the fall of Megara Hyblaia as part of Gelon's wider strategy. Gelon's ultimate aim was to make Syracuse the centre of his power base; to accomplish this task he built up his chosen capital both physically and demographically, the latter being executed through the transference of people to Syracuse from other nearby Sicilian cities.⁶⁹ We are told that all the inhabitants of Kamarina were sent to Syracuse; the silence seems to imply that no distinction was in general made by Gelon as to class or status. On the other hand, one-half of Gela's inhabitants were moved to Syracuse, in order obviously not to weaken completely his old capital; how these transferees were selected is not disclosed to us. In the case of both Megara Hyblaia and Euboea, more explicit information in this respect is recorded: Gelon decided that only the well-to-do should be brought to Syracuse for incorporation into the citizen body, for the tyrant felt that the commons would make an unpleasant element in his revamped seat of power.

One last aspect of the Herodotean passage calls for comment as it specifically concerns Megara Hyblaia. The Megarian rich⁷⁰ instigated war against Gelon; the rationale behind this action is open to speculation. The war may simply have been a reaction to the tyrant's well-known ambitions. In any case, Gelon, placing Megara Hyblaia under siege, brought the city to capitulation after an unknown period of time. The rich expected to

⁶⁹ Such population movements were common in Greek Sicily: Seibert (1982-83: 36-39, for the late archaic period). Cf. Purcell (1990: 47).

⁷⁰ Literally "the thick" (from *παχέας* [acc. pl.]). For the use of such terms to denote upper class status, see discussion in *MH* i.423 and Nenci (1989: 27). A certain Phintylos, son of Eugritos, mentioned as a dedicator in two late archaic inscriptions may well have been one of these individuals.

pay, with their lives, the price for undertaking such folly. However, the rich got richer, so to speak, and went to live as citizens of Syracuse. Contrary to expectations, the *demos* was also transferred to Syracuse, in order to be sold into slavery. Such, therefore, is history's grim memory of the *demos* for keeping its hands clean of an affair stirred up by the few.⁷¹

The story in Polyainos (i.27.3) differs from the previous one:

Γέλων τὸ Μεγαρικὸν βουλόμενος καταλῦσαι
ἐποίκους μὲν ἐκάλει τοὺς ἐθέλοντας Δωριῶν,
Διογνήτῳ δὲ, τῷ ἄρχοντι, χρήματα παρὰ
δύναμιν ἐπέταξεν· ὁ δὲ τοῖς πολίταις. οἱ δὲ
τοῖς τέλεσιν ἀπαγορεύοντες ἐς τὴν ἀποικίαν
τὴν ἐν Συρακούσαις ὑπεικυσαν ὑποβαλόντες
αὐτοὺς τῇ Γέλωνος δυναστείᾳ.

Gelon, wishing to destroy the Megarian state, invited those of the Dorians willing to join the citizen body [*sc.* of Syracuse], and upon Diognetos, *arkhon* of the Megarians, he imposed tribute beyond reach. The latter passed it on to the citizenry, but they renounced the taxes and submitted themselves to live at Syracuse, yielding to Gelon's power.

There are similarities between this and the passage in Herodotos. Polyainos' version agrees with Herodotos' on placing the responsibility for Megara Hyblaia's end on Gelon's shoulders, and in both accounts there is also a transference of citizens from Megara Hyblaia to Syracuse.⁷² But the remaining details in Polyainos diverge from those contained in Herodotos. Some of the difference could be due to the context for which the

⁷¹ The survival of the rich, on the other hand, may have been commemorated in a poem mentioned in the *Suda* (s.v., Θέογνις) (so Dunbabin 1948: 418): ἔγραψεν ἐλεγείαν εἰς τοὺς σωθέντας τῶν Συρακουσίων ἐν τῇ πολιτορκίᾳ ("He wrote an elegy in honour of [or about] those saved from the Syracusans in the siege."). Figueira (1985a: 125) points out that a later fifth-century context is also possible.

⁷² The social position and outcome of the transferees are not recorded by Polyainos.

authors intended their material. To all appearances, Gelon first attempted to increase the population of Syracuse by simply inviting any Megarians who wanted to come over to him. When this did not succeed, a ruse was employed. An unattainable tribute, well beyond the means of the community, was laid down by Gelon onto Diognetos. The latter is described as "*arkhon* of the Megarians"; what judicial function, if any, such a title held is unknown. Did he represent a more defined social class, such as the rich, other than that stated in Polyainos? The answer to this question could doubtless deliver needed insights into understanding the ruse recorded by Polyainos. If, for instance, Diognetos were an oligarch, he may have worked in conjunction with Gelon to betray the city. In this scenario the tribute imposed was merely part of the ruse. However one interprets Diognetos' rôle, the tribute was passed on to the citizens (Herodotos' *demos*?), who could not manage it and so submitted themselves to live in Syracuse under Gelon's rule.

Although we possess two different stories regarding the demise of Megara Hyblaia, the distance between them could well lessen were it not for the brevity with which events in Polyainos are reported. Either way, however, the result for Megara Hyblaia was identical in the end; the small Megarian *polis*, founded nearly two and a half centuries earlier, was swallowed up by the bigger ambitions of a single man.

Conclusions

The quotation which served as the starting-point of this chapter represented a historian's sketch of the development of society in early Greek Sicily. Calderone tried to give the human backdrop to the archaeological remains, in full realisation that historical reconstructions depend heavily on this form of evidence. He also pleaded to archaeologists to attempt to interpret their material, to do more than simply excavate for

the sake of excavating. This chapter set out to take up this challenge, and the results obtained by combining a traditional historical approach with an archaeological historical one have been seen in the preceding pages. I begin by summarising these conclusions.

Megara Hyblaian society in the eighth century is the least known of all periods at the site. The archaeology provides some indications of the physical layout of the early settlement, in whose plan the village divisions of mainland Megara may be reflected. At the end of the eighth century, the community at Megara Hyblaia consisted of a couple of hundred people. By working back from this settlement population, it was hypothesised that the original group of settlers from Greece could have numbered roughly between 50 and 100 people. Study of the three eighth-century silos also suggests that some households may have attempted to produce a grain surplus. If true, this could supply evidence of not just some people's intention in taking part in the foundation of Megara Hyblaia, but perhaps also the presence of individuals of a higher social class.

Such differences in social standing become more apparent in the seventh century, judging from variations in house size. Population seems to have grown steadily throughout this century. Part of the population-growth may have been due to the admission of natives, for two typically native burial practices are attested in the necropoleis thereafter, whilst the remainder was almost certainly a sign of the prosperity that Megara Hyblaia was experiencing. Other indications of prosperity are the intense building activity and the foundation of Selinous. We can also understand something of the beliefs and ideals of the oligarchic element by employing the Theognidean corpus, and also by examining the few pieces of polychrome pottery which preserve enough of their figure-scenes to allow historical interpretation.

The sixth century was a time of further social definition at Megara Hyblaia. The

evidence for this bunches around the middle of the century. The literary tradition records a war alliance with Syracuse, then ruled by a narrow oligarchy. The political ideology of Syracuse seems also to be reflected in the archaeology of this period, namely in two small concentrations of conspicuous tombs along the roadside leading out of the city. Thus, instead of tyranny, which began to spread widely throughout Sicily in the third quarter of the sixth century, Megara Hyblaia's ruling élite appears to have narrowed even further. This group is likely to be the same one that the literary sources mention ruling the city in the early fifth century, with the aid of whom Gelon made Syracuse a wealthy city.

Several of the foregoing conclusions which have been arrived at through archaeological analysis are the result of taking a wider methodological approach to interpreting the evidence for society and politics. One of the main obstacles encountered in doing so involved improper publication: two examples of this practice that readily come to mind are the silos and listing the various artefacts found in individual houses. Social archaeology (*cf.* Renfrew 1984) involves precise details of the material's context, as well as paying attention to as many aspects of the archaeological record as possible. In any case, the picture will always be far from Calderone's ideal, for in writing history largely based on archaeology conclusions will always be conditioned by future discoveries and, more seriously, by the possibility that information has been lost forever.

CHAPTER V:
ENVIRONMENT AND ECONOMY

Introduction

The evidence on which a picture of Megara Hyblaia's natural environment and economy may be built has both strengths and shortcomings.

To take the strengths first, Megara Hyblaia is one of the few sites in the ancient Greek world where preservation of the settlement, through relatively minimal later building, and the research aims formulated around this situation, have recaptured many features of the exploitation of territorial resources and of the nature of the economy in general. The imported pottery has also been published in exemplary fashion, with an acute awareness of quantification being demonstrated (*cf. MH* ii.9-10 for basis of statistics). Another strength has been Vallet and Voza's (1984) attempt to outline the human exploitation of the Siracusano from prehistoric to modern times.

However, the shortcomings are quickly realised if one peruses Greene's (1986) textbook on the archaeology of the Roman economy: the Megara Hyblaia excavations predate more recent interest in the ancient economy.¹ Thus the techniques that Greene discusses (*e.g.*, field surveys, palaeoethnobotany, faunal studies, and soil science) have yet to be applied to Megara Hyblaia.² Without such information, we cannot profess to write

¹ Note the excavators of Megara Hyblaia: "Certes, depuis peu, et sous l'influence d'archéologies venues d'ailleurs, on interroge autrement les sols antiques....maintenant, on interroge, on analyse les terres pour mieux écrire l'histoire: histoire des plantes et des cultures, histoire des hommes aussi, de leur alimentation, des maladies et de la mort (car on analyse aussi les ossements); bref, à travers les données de plus en plus nombreuses de la «culture matérielle», on s'efforce de saisir ce qu'était la vie des hommes" (*MH* iii.177-178). It is not merely coincidental that concern with landscape and economy has entered Sicilian classical archaeology through the efforts of a Roman archaeologist (Wilson 1990: esp. chs. 6-7).

² The situation elsewhere in Sicily is generally not any better in this regard: "Attualmente, anche al di fuori dei contesti archeologici, tale evidenza [sc. paleoecologica] manca del tutto" (Alliata et al. 1988: 15). For a plea to expand and diversify the archaeological record with such evidence, see Gras (1989: 419).

a detailed environmental and economic history of Megara Hyblaia; accordingly the picture is necessarily lacunose.

In view of the circumstances, with their inbuilt limitations, the present aim is to assemble the available evidence on the environment and economy of Megara Hyblaia. In part one of this chapter, discussion begins by examining the size, nature, and resources of the territory; part two considers the economy, while the third part complements the latter by examining trade and exchange.

The Territory

Defining the Territory's Extent

Like a good many early *poleis*, there is no documentary evidence which gives specific details of the size of Megara Hyblaia's territory in the archaic period.³ In place of this deficiency, we must piece together information which often has an indirect bearing on territorial matters; nevertheless, such a procedure permits the general extent of Megara Hyblaia's territory to be established. The intention here is to collect all this information, for it has never appeared in any one discussion, dividing the material into categories of literary and archaeological and topographical evidence.

I. THE LITERARY EVIDENCE

In the passage of Polyainos (v.47), which we have already encountered (ch. IV), a territorial dispute between Megara Hyblaia and Leontinoi is mentioned, but no details are given about the location of the disputed land, although one could be suggested (see below), or about the territory itself.

³ See generally Daverio Rocchi (1988: esp. 15-19).

Two entries of Stephanos of Byzantion's *Ethnika* supply further evidence:

(i) *s.v.*, Στύελλα:

φρούριον τῆς ἐν Σικελίᾳ Μεγαρίδος. τὸ
ἔθνικὸν Στυελλῖνος ὡς Ἐντελλῖνος.

Styella: a fortified site of Sicilian Megaris. The ethnic is Styellinos like Entellinos.

(ii) *s.v.*, Ὑβλαι:

τρεις πόλεις Σικελίας· ἡ μείζων, ἥς οἱ πολῖται
Ὑβλαῖοι, ἡ μικρὰ ἥς οἱ πολῖται Ὑβλαῖοι
Γαλεῶται Μεγαρεῖς. ἡ δὲ ἐλάττων Ἡραία
καλεῖται. ἐστὶ καὶ πόλις Ἰταλίας. τὴν δὲ
Ὑβλαν, ἀπὸ Ὑβλου τοῦ βασιλέως, διὰ τὸ
πολλὰς Ὑβλας καλεῖσθαι τῶν Σικελῶν
πόλεων τοὺς ἐνοικοῦντας ἐκάλουν Μεγαρέας.
μία δὲ τῶν Ὑβλῶν Στύελλα καλεῖται, ὡς
Φίλιστος τετάρτῳ Σικελικῶν.

Hyblai: there are three such cities in Sicily; the citizens of the bigger one are Hyblaioi; the citizens of the smaller one are Galeotai Megarian Hyblaioi; the smallest city is Heraia. There is also a city in Italy by this name. They used to call the inhabitants of the Sicilian cities Megarians because the many Hyblai were named Hybla after King Hyblos [sic]. One of the Hyblai is called Styella, according to Philistos in book four of his *Sikelika* [=FGrH 556 F20].

Both entries are without mark of time. For the first entry, Stephanos does not cite his source(s), whereas for the second he singles out Philistos as the supplier of all or, quite possibly, only the very last line of the entry. It is not unreasonable to suppose that Stephanos drew his information for the first entry, either at first hand or through filtration, from Philistos as well, since the latter is heavily cited elsewhere in Stephanos' text as a source for Sicilian toponymy (Walbank 1968-69: 481-482; Manni 1981: 29-30). It may be that Stephanos, having cited his source for Styella once already in an appropriate

context (under the "Hyblai" entry), would have deemed it unnecessary to do so again, in the belief that the reader would have turned to the Styella entry itself for further information. Objections might well be raised against such a view; certainty is admittedly impossible, whatever the stance adopted, simply because Stephanos did not acknowledge his source(s) for the first entry. At any rate, it is clear from the second Stephanos entry that Philistos knew of Styella, and combination of both of Stephanos' entries leaves little doubt that Styella (also known as Hyblai) was situated somewhere in the Megarian domain of eastern Sicily.⁴

The information concerning Styella should be viewed as highly reliable, for two reasons. First, Philistos was born in Syracuse in the late fifth century, and later became part of Dionysios I's inner circle of ministers. Philistos produced historical writings likened in antiquity to Thucydides' in both accuracy and critical awareness.⁵ Therefore, he would not have been too far removed in time and space from the information on which he reported in the second (and possibly the first as well) Stephanos entry above. Second, Styella began to mint coins about twenty years after Megara Hyblaia's demise.⁶ The minting of coins could suggest that the *phrourion* had now graduated to "...una città sovrana ed indipendente..." (Bernabò Brea's 1968: 178), though as T.R. Martin (1995) has now argued coinage need not necessarily be a sign of sovereignty. Much discussion on

⁴ For the other two Hyblai, see Manni (1981: 184-186).

⁵ For the life, career, and writings of Philistos, see Pearson (1987: 19-30); Sanders (1987: 43-71); Caven (1990: *passim*).

⁶ On Styella's coinage, see Mirone (1928); Bernabò Brea (1975: 49-51); Holloway (1975: 142-143). Although the coins bear the ethnic Στιελαοναίων in the genitive plural, no scholar, except Manni, has ever doubted that the coins were struck by Styella. Manni's (1981: 226-227) objection that Styella did not mint these coins, leading him to posit they belong to an unattested *Στιελόνη, is vitiated by the fact that Stiela and Tiela are textual variations found alongside Styella in the literary tradition (*cf.* *MH* iii.123).

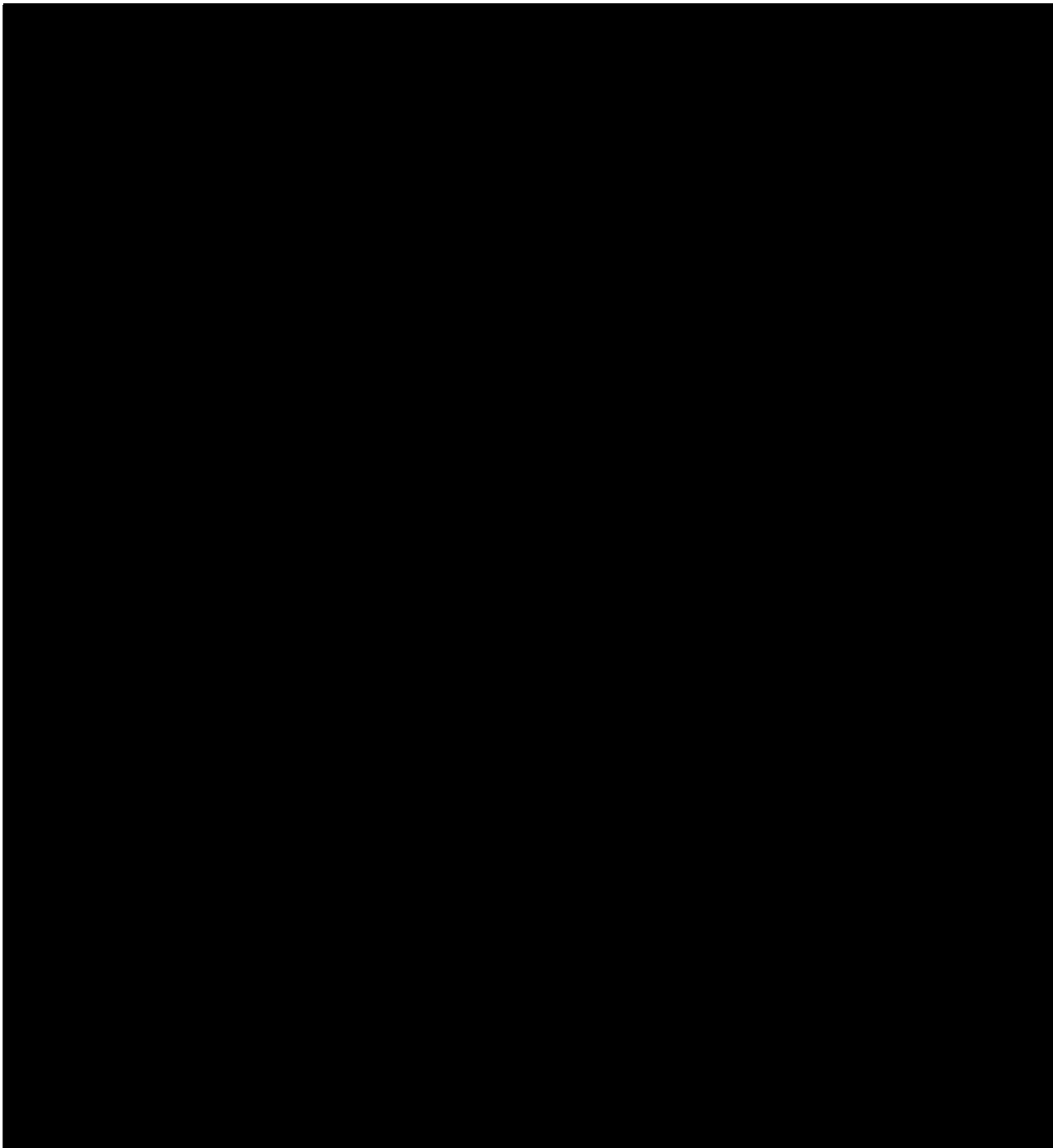


Fig. V.1. Megara Hyblaia and surrounding territory, with hypothesised limits of territory marked (after De Angelis 1994: 91, fig. 6.2 with minor modifications).

- | | |
|---|--|
| 1. contrada Intagliato (or Intagliatella) | 3. Villasmundo |
| 2. Cozzo del Monaco (or Locu Monaco) | 4. small temple at Mulinello river-mouth |

the location of Styella has taken place.⁷ Of the handful of identifications advanced, Bernabò Brea's (1968: 178-185) arguments are most convincing.⁸ Styella must have lain in a sufficiently remote part of Megara Hyblaia's former territory to be able to maintain its independence, out of the grasp of Gelon. Furthermore, Leontinoi and Syracuse were at odds for much of the fifth century (Berger 1991), and the former, Bernabò Brea (1968: 183) has argued, would have surely welcomed a buffer state between the two. Bernabò Brea (1968: 180-183, 185) even suggested, on the basis of surface reconnaissance, a site for Styella in the contrada Pezza Grande, situated about 1 km. north-west of Pedagaggi, although he refused to press this identification, calling for excavation to confirm, or indeed negate, his hypothesis (fig. V.1).

II. THE ARCHAEOLOGICAL AND TOPOGRAPHICAL EVIDENCE

The earliest indications of Megarian presence in the territory are connected with the extraction of stone. Volcanic stone was first used in the settlement as kerb-stones in the mid-seventh century (*MH* i.249). The closest source of volcanic stone to the main settlement is about 10 km. away, and forms part of a larger geological base stretching from Militello and Francoforte (near Leontinoi) to Sortino and Melilli (near Megara Hyblaia) (*MH* i.249; Vallet & Voza 1984: 19-25). It is presumed that the stone was quarried somewhere in this volcanic belt, although no evidence of quarrying has so far been found there. It is further presumed that Megarian territory had already comprised

⁷ Bernabò Brea (1968: 178-179) and Manni (1981: 227) review the possibilities.

⁸ The two discussions of Styella since 1968 both agree with Bernabò Brea's suggested identification (Asheri 1980: 113; Domínguez 1989: 270). Styella is not mentioned in the historical reconstruction in volume one of the French excavations (*MH* i.405-428, esp. 417 on the territory) or in Vallet and Voza (1984) and Vallet (1990). Dunbabin (1948: 128, 301, 494) also missed it.

at least 10 km. of the interior, and that the stone was not obtained through exchange (see below for further discussion).

In 1954, evidence of an ancient quarry came to light in, appropriately, contrada Intagliato (or Intagliatella) (fig. V.1). Barreca (1956: 34) described the quarry as follows:⁹

La località prende il nome da una latomia greca....Essa infatti affiora oggi dal terreno quasi solamente con la parete ovest....Tale parete si sviluppa per circa m. 230 di fronte ed ha oggi un'altezza media di circa m. 3, ma tutto lascia credere che vi sia almeno un metro di interro. La roccia presenta ancora evidenti le tracce del distacco dei blocchi e qua e là i caratteristici riquadri dove dovevano essere incassati i rilievi votivi relativi al culto degli eroi.

The type of stone associated with this quarry is a limestone suitable only for rougher work, and the excavators believe from visual inspection that some stone in both the archaic and hellenistic settlement came from hereabouts, though they failed to be more specific or to establish direct correlations (*MH* i.248-249). Two features act as chronological indicators. First, the votive reliefs ("relativi al culto degli eroi") indicate a certain antiquity. Second, and more importantly, two tombs were found nearby (Barreca 1956: 34-35). The first tomb contains two skeletons in a sarcophagus; the grave-goods consisted of six pieces of jewellery, all datable to the late seventh/early sixth century. The grave type is quite at home in the cemeteries around the *polis* centre (Cébeillac-Gervasoni 1975: 10, 19). The other tomb was found approximately 30 m. from the latter. A single individual was buried with two pots in a simple *fossa* grave cut into the rock; the tomb is dated somewhere between the mid-fourth and mid-third centuries. For present purposes

⁹ It is fortunate that this brief description of the quarry exists, for shortly after its discovery the quarry was destroyed by industrial expansion (*MH* i.249 n. 2).

the first tomb is of greater importance, for it seems to suggest some form of human activity around the quarry by at least the late seventh century. It is very possible that this activity is to be connected with the extraction of stone for use in the main settlement. The Hellenistic tomb perhaps strengthens somewhat this possibility: extraction of this source of stone coincides with the two important episodes in the human exploitation of the area.

The re-use of native tombs, first attested in the sixth century, may also be revealing. Orsi (1893: 319-325) discovered a MBA/LBA cemetery of at least six tombs at Cozzo del Monaco (or contrada Locu Monaco), located some 4 km. north-north-west of Megara Hyblaia (*cf.* S. Tusa 1992: 482-483) (fig. V.1). All of these prehistoric tombs preserved traces of re-use, well-defined stratigraphically, which Orsi (1893: 324) was inclined to place in the mid-sixth century. The burial rite was like the earlier one, that is, it consisted of multiple depositions in a single tomb (five is the largest number recorded in tomb VI). The tombs had experienced some plundering in later times; what remained consisted solely of Greek pottery, both local and imported.¹⁰

Voza (1973c: 58) encountered similar tomb re-use at Villasmundo, and briefly commented on it as follows:

Alcune delle tombe, usate costantemente per sepolture collettive, vennero riadoperate per inumazioni anche in epoca più tarda. Infatti si sono rivenuti scheletri e corredi da riportare al VI sec. a.C. e raccolti al di sopra uno strato terroso che aveva coperto le più antiche inumazioni.

¹⁰ Few details are given, and none of the material is illustrated. The following vase-shapes are mentioned: one amphora, two stamnoi, two oinochoai, two aryballoi, and two lekythoi. Both aryballoi imitate Korinthian types, and are respectively described as "locale" and "indigena" copies (Orsi 1893: 323-324). The remaining are presumably of local manufacture. Of the imports the following is said: "...un certo numero di vasetti greci ordinari, che per i confronti istituiti col ricco materiale della prossima necropoli di Megara Hyblaea, devo assegnare al sesto secolo..." (Orsi 1893: 320); and more simply: "...rotti di vasi greci grezzi..." (Orsi 1893: 324).

Here the more recent depositions consist of multiple burials, which clearly stand apart stratigraphically from earlier levels. Nothing can be said about the sixth-century material, as none of it has ever seen publication.¹¹

The only building known outside the *polis* centre is a small temple, surviving in bare foundation, near the Molinello river-mouth (already discussed in ch. II) (fig. V.1). It was constructed sometime in the sixth century. This temple, together with the nearby tombs at Cozzo del Monaco just discussed, could indicate the presence of a settlement in the vicinity.

Another way to help to define the extent of Megara Hyblaia's territory is to delineate the areas under the control of neighbouring Syracuse and Leontinoi.

Syracusan expansion can be documented along the river Anapos with the establishment of two military outposts, Akrai and Kasmenai, in 663 and 643 respectively (Thuc. vi.5.2).¹² These Syracusan settlements demarcated a partial northern frontier with Megara Hyblaia. The boundary is less clear once the Anapos river takes a south-east turn, just beyond Sortino, in the direction of Syracuse itself (fig. V.1). Part of the frontier could have been made up by the Monti Climiti (406 m. asl), which run roughly parallel with the Anapo. For the remaining frontier, Vallet and Voza (1984: 57) suggest that "...la zona di confine era probabilmente verso la 'Scala Greca', dove finisce la pianura e si erge la terrazza calcarea sul cui margine corrono le fortificazioni dionigiane, alle porte dell'attuale Siracusa." The establishment of these later fortifications is an indication that geography

¹¹ The significance of these cases of tomb re-use will be dealt with further below.

¹² On the military character of these outposts, see Di Vita (1956: 181 n. 21, 182, 193-194).

left this flank of ancient Syracuse vulnerable.¹³

The frontier with Leontinoi may be established by similar means. When the Megarians first arrived in Sicily, they landed at Trotilon above the river Pantakyas (see ch. I); both of these places are usually identified with Brucoli and the Torrente Porcaria (Manni 1981: 239, 120 respectively) (fig. V.1). Later the Khalkidians invited the Megarians to join them as fellow citizens at Leontinoi. Shortly thereafter the Megarians were expelled, whereupon they went to Thapsos. Trotilon, the Megarians' original place of landing, was too close to home for the Khalkidians to permit permanent settlement by Megarians; this is perhaps why the Khalkidians attempted to spoil Megarian success. It is assumed that this area infringed on Khalkidian interests, and in consequence it is believed that the Porcaria watercourse formed part of the boundary between Leontinoi and Megara Hyblaia (Vallet & Voza 1984: 57).

If we follow the course of the Porcaria as far inland as it goes, we arrive at a point less than 5 km. south-east of Leontinoi (fig. V.1). Moving further west, in the hills of Mt. Pancali (485 m. asl), there is largely no natural divide between the two *poleis* until the Torrente Margi is reached. Only the river Lentini which wraps around its namesake settlement on the north and east sides proceeds right around almost enough to join up with the Porcaria. However, in the Pancali corridor itself, further to the west of the latter watercourses, rolling hills and tablelands separated Leontinoi and Megara Hyblaia. This area is perhaps the scene of the frontier dispute which took place at the beginning of Panaitios' tyranny. We may arbitrarily draw a line from the source of the Lentini and Porcaria watercourses through the middle of the Pancali corridor to the Torrente Margi.

¹³ For full discussion of the topography of the Scala Greca area, see Drögemüller (1969: 15-17).

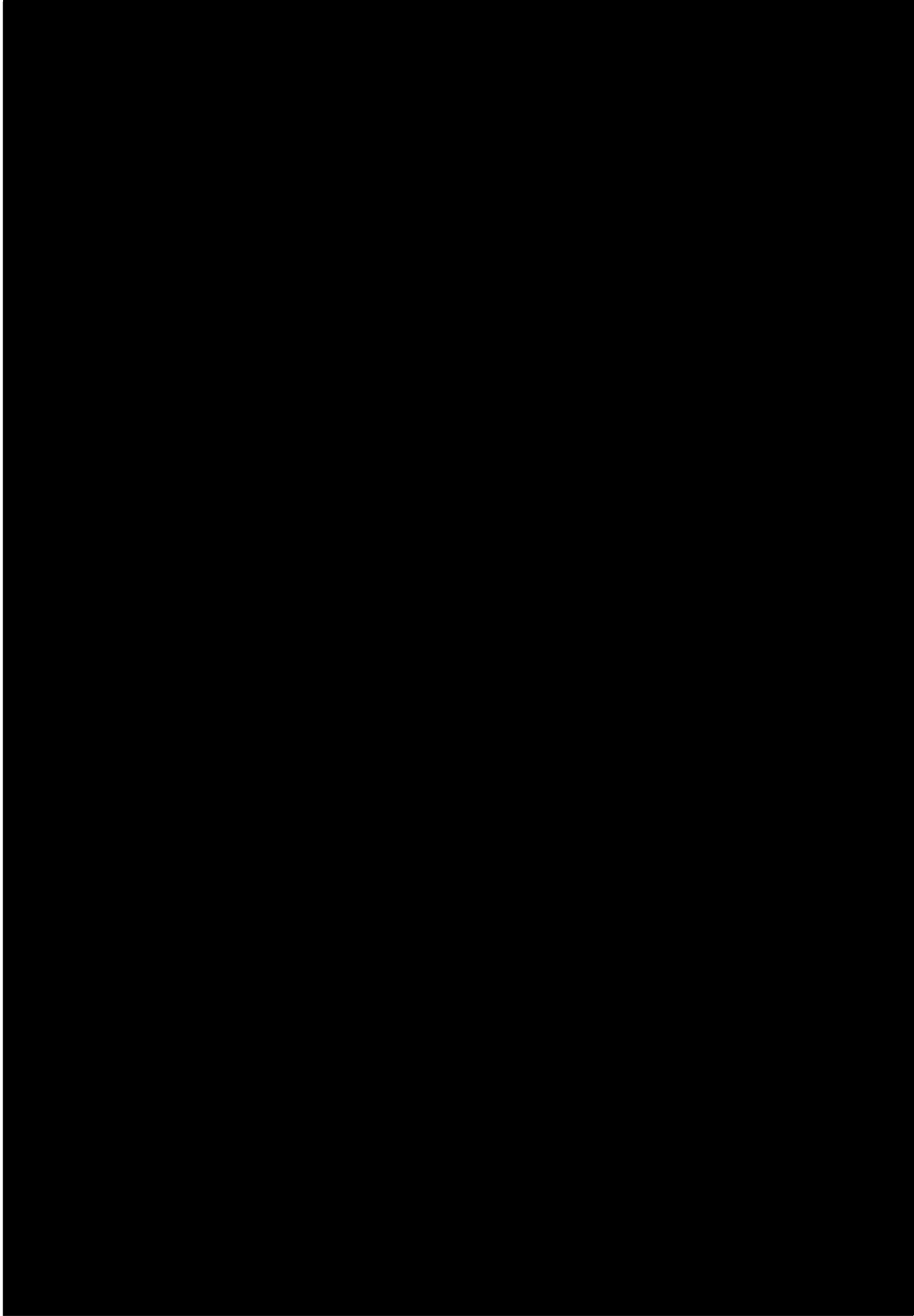


Fig. V.2. The general extent of Megara Hyblaia's territory in proportion to the rest of Sicily (after King 1973: 22, map C with minor adaptation).

Beyond here were the Heraian hills, which certainly acted as a boundary between the territories of Leontinoi and Megara Hyblaia, since the evidence clearly indicates that the area to the west was Khalkidian domain (Vallet 1962a: 34-39; Procelli 1989: esp. 687). Leontinoi's grasp reached right around Megara Hyblaia's own territory and extended south until it met Syracuse's in a sort of "pincer movement" (Drögemüller 1969: 39, fig. 7; Procelli 1989: 687).

The combination of all the various threads of evidence set out above enables the main lines of Megara Hyblaia's territory to be built up (fig. V.1). The limits marked on the map enclose about 400 km.² (20 km. by 20 km.), or about 0.02% out of a total surface area of 25,708 km.² (fig. V.2). There seem to have been three stages which led to the acquisition of this territory. The first centres around the transformation of the settlement. Di Vita (1990: 349) observes that the eighth-century houses of Megara Hyblaia were not sufficiently far apart in their distribution for the original colonists to have had their *kleroi* in the *polis* centre (thus some form of territory must have existed already from that time). Cordano (1986: 114) points out what may be taken as the arrival of the second stage:

La casa greca di VIII secolo occupa pochissimo dello spazio utilizzabile da ogni famiglia.... In un secondo tempo questi spazi vengono assorbiti dall'ampliarsi delle case, fatto che, oltre a cambiare radicalmente il paesaggio da semi-agricolo ad urbano, deve aver avuto gravi conseguenze nell'organizzazione familiare e civica, la quale dovrà poi prevedere delle residenze in campagna e l'approvvigionamento dei prodotti agricoli in città.

Of course, Cordano does not imply that there had not been any activity in the countryside before this urban growth occurred, just that the phenomenon to which she draws attention would have had these sorts of implications. The native/Greek co-habitation put forth in the previous chapter is ground for believing that this expansion into the countryside would

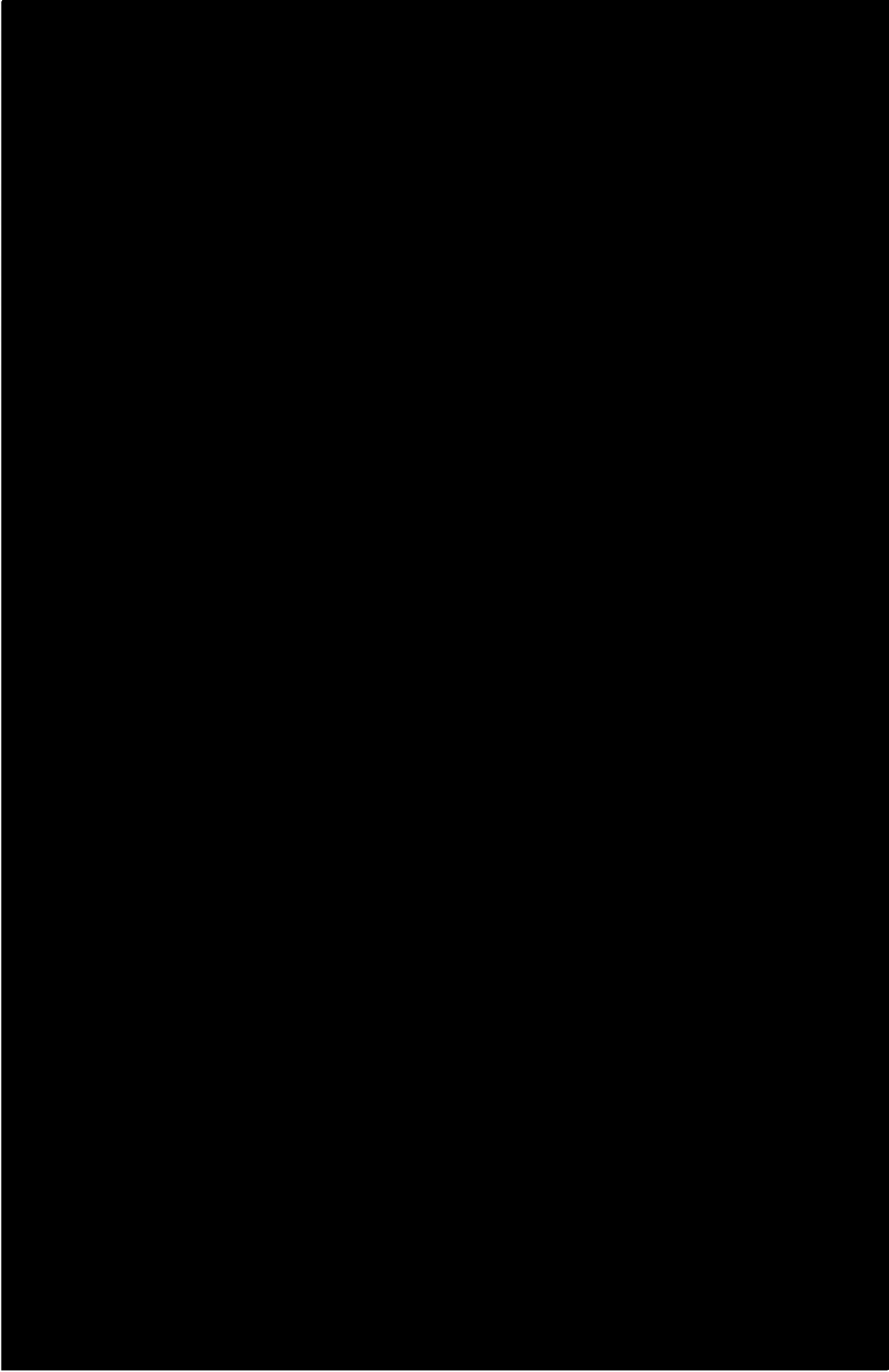


Fig. V.3. Geological map of Sicily (after *AHI* i.392, fig. 65).

have occurred peacefully. In fact, it is becoming increasingly likely that Bernabò Brea (1968: 175) was on the right track in suggesting that Megara Hyblaia inherited much of Hyblon's kingdom.¹⁴ Therefore, it is legitimate to think that the basic shape of the territory took form at this time. The frontier dispute with Leontinoi could indicate a further step in the process of territorial definition, in this direction at least, in the late seventh century. This was followed, in the next century, by the third stage, during which we can begin to trace settlement in the territory, perhaps owed to the descendants of intermarriage (tomb re-use) of previous decades.

The Natural Environment

Although the precise natural environmental conditions prevailing during the archaic period remain to be established, a first step may be taken by outlining the geology, climate, and general characteristics of the landscape.

The Monti Iblei of south-east Sicily are quite homogeneous in their geological make-up, consisting largely of Miocene limestone (white or yellowish in colour), except in the northern part of this region, where the limestone is intercalated with and overlain by dark basaltic ash and lava of that same geological age (Philippon 1934: 335-337; *AHI* i.180-185, 401-405; Walker 1967: 220) (fig. V.3). The highest point in the Monti Iblei is Monte Lauro (986 m asl). From here the almost horizontal Miocene terraces descend down to the sea in a step-by-step manner (pl. 12), flanked occasionally by steep-sided valleys known as *cave*; the relief, therefore, is quite tabular. The coastal plains provide long, though somewhat narrow stretches (*ca.* 2-4 km.) of flat land. The transition from

¹⁴ Compare Asheri (1980: 113): "I campi megaresi e quelli siculi di Melilli erano evidentemente contigui, a tal punto che non sarebbe assurdo di parlare di compartecipazione agraria, se non proprio di coabitazione greco-sicula." Cf. also Domínguez (1989: 271).

these coastal plains to the hilly interior is abrupt (Vallet & Voza 1984: 32). At 5 km. from the coast Melilli, for instance, stands at 396 m. asl, and about the same distance further inland Sortino is almost 450 m. asl. Much of the land in Megara Hyblaia's former territory lies below 600 m., with 300-600 m. predominating inland, and 100-300 in coastal areas (fig. V.2) (pl. 13).¹⁵

The main watercourses in Megara Hyblaia's territory are, from north to south, the Porcaria, the Molinello, the Marcellino, the Cantera, the San Cusumano, and the Anapo.¹⁶ The Anapo is the largest: its headwaters are located on the south side of Monte Lauro; from here it runs for 52 km., draining an area of almost 379 km.² (Cumin 1944: 63). The other watercourses have suffered severe desiccation as a result of modern industry, which has tapped extensively into them.¹⁷ The past picture was brighter; the landscape itself is partial testimony to this. The limestone bedrock of south-east Sicily is easily eroded by water, and deep gorges, a rather common topographic occurrence, have been gouged out by such movements of water. These karstic features are indicative of once extensive subterranean waterbeds (*AHI* i.202-203; Bethemont & Pelletier 1983: 31-32), with numerous springs as well.¹⁸ There is also the evidence of toponomy: in mediaeval times,

¹⁵ See Pollastri (1948-49: i.108-111, 198-201, 220-225) for in-depth analysis of landform altitudes.

¹⁶ The Porcaria has been identified with the ancient Pantyakas, the Molinello with the Damyrias, the Marcellino with the Mylas, the Cantera with the Alabon, and the Anapo with the Anapos (Manni 1981: 120, 104-105, 117, 96-97, 98 respectively; cf. Vallet & Voza 1984: 27).

¹⁷ Vallet and Voza (1984: 32-34), who point out (p. 33): "...quel tipo di industria [oil refining] aveva bisogno per il raffreddamento dei suoi impianti di una quantità enorme di acqua. Allora non era di uso corrente il dissalamento dell'acqua del mare, procedimento che avrebbe poi risolto il problema: si ricorse alle falde di acqua sotterranea."

¹⁸ For springs, see Pollastri (1948-49: 109, 111, 199, 201, 221, 223, 225).

the toponym "Trappeto" (near Melilli) indicates the production of sugar cane, which demands sufficient water to thrive, and, in early modern times, the Molinello was named after the number of mills situated along it, some of which remained in use to the end of WW II (Vallet & Voza 1984: 66).

However, we should be careful not to over-estimate the water resources of the region: unlike the Anapo, none of the other watercourses is fed by sources located in high altitude areas.¹⁹ The headwaters of the Porcaria and Molinello are located respectively well before Lentini and Carlentini. The Marcellino passes Villasmundo and continues inland for another 5-6 km. The Cantera flows only to around Melilli, and the San Cusumano is shorter still. In summer, all these watercourses also suffer from natural processes of desiccation because of high aridity levels. Although no precise data are available, we may take as an example a major watercourse, the Simeto in the nearby plain of Catania, to show the magnitude of the changes. The Simeto slows down considerably in summer, becoming sluggish; King (1973: 25) quantifies the difference in flow, from a winter average of 2,125 cubic metres per second to only 1 cubic metre in summer. It may be presumed, therefore, that the minor watercourses around Megara Hyblaia are dry in summer.

In regard to climate, evidence suggests that present conditions have generally not changed significantly since antiquity, although some fluctuations, with their positive and

¹⁹ Before the advent of modern industry, Cumin (1944: 63) observed that most of the Monti Iblei's watercourses which emptied into the Ionian Sea contained little water. No description of these watercourses appears in Cumin (1944), or elsewhere (e.g., *AHI* i.512; Pollastri 1948-49: ii.54-55; Vallet & Voza 1984: 27-28). Perhaps this silence is because the watercourses are deemed insignificant, or because no records were kept.

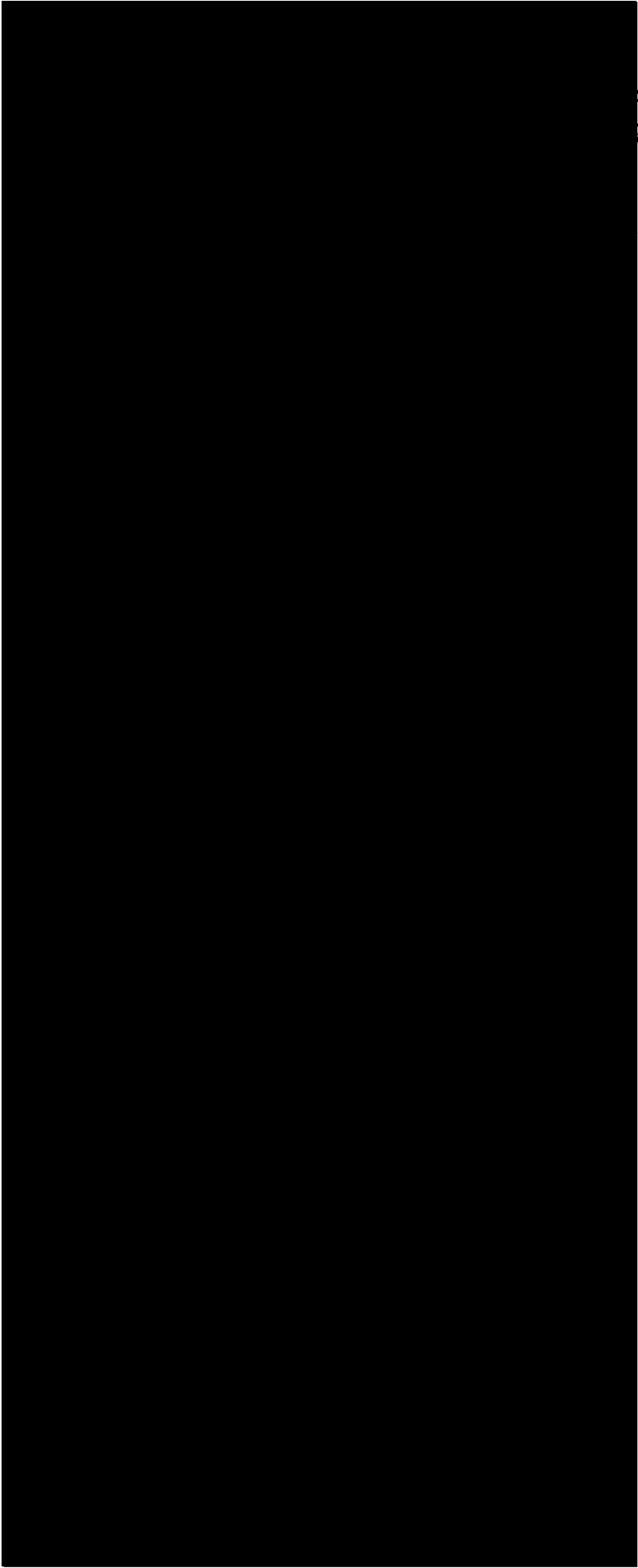


Table V.1: Variation in annual rainfall (in mm.) for the decade 1931-1940: selected sites in south-east Sicily.
(Source: Pollastri 1948-49: ii.46-51)

negative effects, have been noted at various times during this period.²⁰ Thus present-day climate may stand in as a rough guide to the past. Sicilian winters are generally coolish and wet, summers hot and dry. The monthly mean temperature for January for south-east Sicily is over 10°C on the coast, with ranges of 8-10 and 4-6°C as one moves inland (Cantù 1977: 140). In July temperatures are usually greater than 26°C on the coast, this high decreasing further in the interior (Cantù 1977: 141). The coastal area stretching from Syracuse to Catania receives between 2,409 and 2,558 hours of sunshine per annum (Milone 1959: 53; Walker 1967: 216 n. 2; Vallet & Voza 1984: 26). On the east coast there are 40 to 60 rain-days, with an average of 500-700 mm. of rainfall, and up to 100 such days in the mountainous interior, with an average of 750-1000 mm. of rainfall (*AHI* i.426-427 with fig. 76; Cantù 1977: 142-143 with fig. 6). Available statistics for the decade 1931-1940 suggest that the degree of inter-annual variability was not great; in the majority of cases, the yearly average is more than enough for a suitable crop (table V.1). About ninety-five percent of annual rainfall occurs in autumn, winter, and spring, particularly from October to March (*AHI* i.426-427; Pollastri 1948-49: ii.46-51; Milone 1959: 46-49); summer, on the other hand, is virtually bone dry, receiving between 20 and 50 mm. of rain (*AHI* i.424-426; King 1973: 28). Late autumnal rainfall can occasionally consist of violent downpours (King 1973: 28); however, thunderstorms and hail, both threats to agriculture and brought on by such heavy downpours, occur on less than 10 days, usually on half that amount of days (*AHI* i.432; Cantù 1977: 150). In south-east Sicily frost and snow are almost completely absent outside high, mountainous areas (*AHI* i.422, 427-428).

²⁰ For Sicily, see Wilson (1990: 7-8). Cf. also Meiggs (1982: 40); Greene (1986: 84-85); Osborne (1987: 29, 31); Rackham (1990: 88, 90); Isager and Skydsgaard (1992: 11); Zangger (1992: 15).

No evidence exists for the size of cultivated area in the archaic period, but more recent data suggest that there would have been much arable land potentially available in Megara Hyblaia's territory. In *AHI* (iii.30, fig. 7) arable land is represented as consisting of 50-70% of the total land surface. More detailed assessments record higher levels: in Pollastri (1948-49: iii.58-59, 72-73, 78-79) the figure is just over 78%, and in Milone (1959: 75) it comprises 95%.²¹ In 1961, 83% of the land in the Siracusano was being exploited agriculturally (Antonietti & Vanzetti 1961: 81 table 45).²² It is not unreasonable to think that Megara Hyblaia would have had similar levels of cultivable land at its disposal.²³ The fertile soils derived from the volcanic rocks mentioned earlier, which doubtless partly contributed to the proverbial wealth of Leontinoi in antiquity (*q.v.*, *BTCGI* viii.529-530), would also have been enjoyed by Megara Hyblaia.

Of the foregoing modern estimates of arable land, I take the middle ground, and follow Pollastri's figure of 78% as the basis of some carrying capacity calculations.²⁴ The size of Megara Hyblaia's territory is set at 400 km.² (see above). With such agricultural parameters, Megara Hyblaia's territory could have supported around 28,778 people.²⁵ We

²¹ The information in Pollastri represents the average of zones XLIII, XLVI, and XLVIII, whereas that in Milone incorporates zones XLVI and XLVIII of the Siracusano. All these zones cover slightly different modern administrative units, which do not correspond exactly to the area of Megara Hyblaia's territory from ancient territorial ones.

²² To calculate this figure, I have taken the information in the first seven columns of Antonietti and Vanzetti's table 45, containing a break-down of statistics for agricultural use (183, 498 ha.), and divided it by the total surface area (219, 947 ha.) of the province of Siracusa.

²³ Cultivable land may have also existed within Megara Hyblaia's city wall (see ch. II above).

²⁴ These calculations replace an earlier attempt (De Angelis 1994: 95-97).

²⁵ This figure was calculated as follows: a total territory size of 400 km.² at 78% arable leaves 312 km.², or 31,200 ha., as agricultural land. I assume that half of this agricultural land (15,600 ha.) was

are still far from certain how many people Megara Hyblaia itself had to support, due in particular to the lack of information regarding rural settlement and population. In chapter III, the population of the *polis* centre was estimated, by the late sixth century, at 2,275 people. It seems rather likely that Megara Hyblaia had more than enough land to support itself.

Pasture land is scarce today in Sicily. Most of what exists is to be found in north-west corner of the island (see ch. X below), but in the opposite corner of Sicily the picture is the reverse. In the first half of this century the proportion of the Siracusano classified as consisting of pastures and grazing lands was generally less than 10%, though there were some pockets of the province that fell in the 10-30% range (*AHI* iii.54, fig. 16). In 1961 no pasture land is recorded (Antonietti & Vanzetti 1961: 81, table 45). The general reason for the lack of pasture and grazing lands is that up to 90% of Sicily has experienced some form of agricultural use in more recent times (*AHI* iii.119; King 1973: 28). Consequently, vegetation has been radically transformed since ancient times;²⁶ the disappearance of the island's once-famous forests is a phenomenon belonging largely to the last few centuries.²⁷ This transformation of Sicilian vegetation accounts for the lack

left fallow annually. Each hectare could yield 0.624 metric tonne of grain, producing a total of 9,734.4 tonnes, of which 20%, or 1,946.88 tonnes, was reserved for seed. This leaves 7,787.12 tonnes, from which 15%, or 1,168.1 tonnes, should be subtracted as waste. Thus 6,619.02 tonnes, or 6,619,020 kg., remained for consumption, and dividing this amount by 230 kg. per person per annum for biological subsistence means that 28,778 people could be supported.

²⁶ "In few parts of Italy has the vegetation been as profoundly transformed by the action of man as Sicily" (*AHI* i.390). Compare also Delano Smith (1979: 307): "A vegetation mosaic, the pattern of the different plant associates, is in itself an historical document."

²⁷ But it does not follow that the whole island was covered in forests in antiquity (Milone 1959: 58-59). On Sicilian deforestation, see Laure (1953) and Wilson (1990: 6-7); for ancient forests generally, see Meiggs (1982).

of animals kept today (Milone 1959: 55). However, a less bleak ancient landscape must be envisaged (Vallet & Voza 1984: 34); ancient sources provide indications of different environmental circumstances in the region in antiquity, with different possibilities for economic exploitation.

I begin with the physical make-up of the landscape. A passage in Diodoros (iv.84.1) contains some details of the Heraian hills, which are said to have contained numerous springs and many trees (only the oak is specified). Aristotle (*History of Animals* iii.17) describes the region around Leontinoi as εὐβοσία ("good pasture"). Megara Hyblaia's better documented neighbours furnish evidence of horse-raising: at Leontinoi this practice was already in existence in the late seventh century (Polyainos v.47; Frederiksen 1968: 10),²⁸ and at Syracuse horses begin to be first attested a century later in various forms of evidence (see Frederiksen 1968: 10-14; Spence 1993: 30-32). Dunbabin (1948: 217-218) collects the more general literary evidence for livestock, which supplies testimony that Sicily could have once supported the raising of animals in ways that have since disappeared.²⁹

Although none of the preceding material has a direct bearing on Megara Hyblaia, we may suspect that similar possibilities existed in our region in the archaic period. The fauna depicted on local polychrome pottery (see ch. IV) could well be testimony to this. The landscape of Megara Hyblaia could, therefore, have consisted of conditions more amenable to pasturing and grazing, whether in the plain or in the uplands, which the various states bordering on the Heraian hills could have gained access to without

²⁸ For the possibility that horses were kept at Megara Hyblaia at a similar date, see further below.

²⁹ For livestock in Roman Sicily, see Wilson (1990: 193-194).

necessarily crossing political frontiers (Vallet 1962a: 49-50).³⁰

The Economy

I. THE ARCHAEOLOGICAL EVIDENCE

Stone and marble. Megara Hyblaia had an abundant and varied supply of stone (MH i.247-250; cf. Vallet & Voza 1984: 19-25). For the early houses most of the stone seems to have been collected from the surface locally, or from the digging of wells *vel sim.*, a practice which continued throughout the archaic period (MH i.249-250). Quarried cut stone, for both houses and monuments, was introduced in the mid-seventh century. A sandy limestone was used for such "rougher" work (MH i.248-249); one quarry, discussed earlier in this chapter, from which this stone was extracted was discovered at Intagliata (Barreca 1956: 33-34). A white limestone suitable for finer work can be found around Melilli (MH i.248). From the mid-sixth century onwards, there are several examples of sculpture in this local stone, like the *kourotrophos*, the equestrian group, and Dorian frieze all found in the north necropolis, as well as the head of a female divinity from the west necropolis.³¹ No quarries have been located. Megara Hyblaia's territory was also well endowed with volcanic stone, out of which millstones were primarily fashioned, but for the occasional kerb-stone as well on busy street-corners, owing to the stone's durability (MH i.249).

³⁰ That is not to say that animals had to be taken to upland pastures for grazing (Hodkinson 1988; Isager & Skydsgaard 1992:100-101).

³¹ Gentili (1954b: 91-94, 99-103, 109-111); see also Barletta (1983: 154-161) for the frieze; head of female divinity: Orsi and Cavallari (1890: 940-950). The type of stone is not specified for the funerary stele and sculpture uncovered in the west necropolis (Orsi & Cavallari 1890: 786-789), but one would guess that they, too, were made of this same stone (MH iii.160).

Marble began to appear in the mid-sixth century (this subject receives hardly any attention in *MH* i.249 n.3). The four known pieces of statuary derive from funerary contexts. The earliest in date is the *kouros* of the doctor Somratidas, which came to light in a landslip south of the ancient city.³² A fragmentary torso comes from the west necropolis, dated to the last quarter of the sixth/early fifth century (Orsi & Cavallari 1890: 789-798). To roughly this same period belong the two fragments ("miseri resti") of the plinth of another *kouros* (Gentili 1954b: 94). The finds were dispersed, not clearly associated with any tomb in the north necropolis. The latest known piece of statuary is the head of another *kouros* (Orsi 1913: 60-64). This piece came to light during agricultural work south of the city, perhaps near the cemetery there; on stylistic grounds it is dated to the early fifth century. Marble was employed as the *sima*, and perhaps other parts, of one temple, of the last quarter of the sixth century, from the north-east corner of the settlement.³³ The final use of marble was as marbles ("palline") deposited amongst the grave-goods of two archaic tombs (Orsi & Cavallari 1890: 859 no. 153; Orsi & Caruso 1892: 278 no. 768). All of the marble found at Megara Hyblaia is thought to have come from Paros and/or Naxos.

Metals. Remains of a metalworking area (14,3-5) were uncovered (in block 3), one block west of the *agora* (*MH* i.37-38; *MH* iii.12-13). The earliest phase of this complex (14,3), datable to the eighth century, comprises a rectangular structure (*ca.* 7 m. by *ca.* 2.2 m.), subdivided into two unequal compartments. The complex was enlarged in the early seventh century (*MH* i.38). The additions consisted of two further

³² Bernabò Brea and Pugliese Carratelli (1946-48), with Barletta (1983: 141-146).

³³ *MH* i.427; *MH* iii.159 and fig. 71; Barletta (1983: 146-150); *cf.* also ch. II, section XIV above.

compartments (each *ca.* 1.5 m. by 1.5 m.), a wall was built around much of the complex, and perhaps a circular platform. The low walls that subdivide the structure into its various compartments are 0.7 m. high; flagstones covered all compartments, or "fours" (pl. 14). The discovery of ashes in the compartments indicates that they were heated from below. A well (14,6) was uncovered next to the structure; the sherds recovered from its fill suggest a *terminus ante quem* of the mid-seventh for its construction (MH i.38). The well could have been used to store water needed for the metalworking.

Virtually all of the metal-finds so far known have been retrieved from tombs (*cf.* Shepherd 1993: 86-91). In order of frequency, bronze, silver, iron, gold, and lead are attested.³⁴ The largest range of objects is in bronze, and of these personal adornments rank first: pins, rings, necklaces, and buttons.³⁵ Considerably less common are various

³⁴ Archaic Megara Hyblaia did not mint coins (MH i.424-425; MH iii.157; *BTCGI* ix.515). Nor have coins of other states ever been found in archaic levels, making it very unlikely that Megara Hyblaia used the coinage of others (a practice followed by mainland Megara: Legon 1981: 153, 155; Figueira 1985a: 147, 149).

³⁵ **Pins:** Orsi and Cavallari (1890: 803-806 no. 16, 806 no. 17, 826 no. 56, 832-834 no. 72, 840-844 no. 94, 853 no. 124, 854 no. 129, 858 no. 149, 859-860 no. 154, 862-863 no. 165, 863-866 no. 166, 869 no. 179, 873 no. 186, 876 no. 199, 878-880 no. 209, 881-883 no. 216, 902-904 no. 309, 905-907 no. 311); Orsi and Caruso (1892: 126 nos. 628, 631, 127 nos. 634, 638-639, 128 nos. 639b, 640, 129 nos. H, J, 130 no. 642, 131 nos. T, U, 646-647, 172 no. 2, 173 no. 661, 173-174 no. C, 174 nos. 662, 664-665, 175 nos. 669, 674, 175-176 no. 676, 176 nos. 678-679, 177 no. 3V, 178 no. I, 179 no. 11V, 180 nos. 16V, 19V, 22V, 181 nos. 24V, 29V, 181-182 no. 33V, 182 nos. 34V, 37V, 210 nos. 41V-42V, 211 nos. 47V, 49V-50V, 212 no. 55V, 212-213 no. 58V, 213 nos. 62, 64, 213-214 no. 65, 244 no. 689, 245 nos. 704-707, 246 nos. 713-715, 247 nos. 721, 725-726, 248 no. 737, 250 nos. 757, 762, 250 no. 762, 251 nos. 765-767, 69, 278-279 no. 771, 279 nos. 775, 77V, 280 nos. 79V-81V, 85V, 281 nos. 87V, 90V-92V, 282 nos. 96V, 100V, 283 nos. 780, 785, 787, 792-793, 285 nos. 795, 797, 802, 286 nos. 804, 806, 808-810, 812-813, 287 no. 821, 288 nos. 825, 827-828, 830); Gentili (1954a: 393-394, 398-399; 1954b: 90, 98-99). **Rings:** Orsi and Cavallari (1890: 800 no. 5, 800-801 no. 7, 802-803 no. 12, 817-818 no. 24, 827-830 no. 69, 853 no. 123, 856 no. 135, 866-867 no. 167, 876 no. 196, 880 no. 212, 886 nos. 230 bis, 233, 237, 888-889 no. 239, 898 no. 292, 910-911, 940); Orsi and Caruso (1892: 212-213 no. 58V, 213-214 no. 65, 214 no. 686, 249-250 no. 752); Gentili (1954a: 398-399). **Necklaces:** Orsi and Cavallari (1890: 827-830 no. 69, 880 no. 212, 888-889 no. 239, 910-911). **Buttons:** Orsi and Cavallari (1890: 860 no. 156, 886 no. 237); Orsi and Caruso (1892: 175-176 no. 676, 213-214 no. 65). **Spirals:** Orsi and

sorts of implements, like a small axe, tweezers, strigils, and arrowheads, and objects that had a clay counterpart (aryballoi, oinochoai, lebetes, and plates).³⁶ Earrings, pins, rings, and a basin were fashioned out of silver.³⁷ In iron, two swords, two knives, arrowheads, strigils, nails, and pins have been found.³⁸ Gold was used for five rings (Gentili 1954b: 88, 90; Barreca 1956: 34-35) and as inlay for a silver ring (Orsi & Cavallari 1890: 827-830 no. 69). Lead is found in two instances: as rivets and as a small tube (Orsi & Caruso 1892: 176 no. 681, 278 no. 768).

Cavallari (1890: 802-803 no. 12, 850 no. 112, 910-911); Orsi and Caruso (1892: 278 no. 768).

³⁶ **Axe:** Orsi and Cavallari (1890: 860 no. 156). **Tweezers:** Orsi and Cavallari (1890: 940). **Strigils:** Orsi and Cavallari (1890: 832-834 no. 71). **Arrowheads:** Orsi and Cavallari (1890: 940); Gentili (1954b: 87-88). **Nails:** Orsi and Cavallari (1890: 870-873 no. 185). **Marbles:** Orsi and Cavallari (1890: 807-815 no. 21). **Aryballoi:** Orsi and Cavallari (1890: 910-911); Orsi and Caruso (1892: 183 no. 39V, 251 no. 763). **Oinochoai:** Orsi and Cavallari (1890: 859 no. 153). **Lebetes:** Gentili (1954b: 110-111). **Plates:** Orsi and Cavallari (1890: 800-801 no. 7). **Olpe:** Gentili (1954b: 87-88). **Pot:** Gentili (1954b: 89). **Fragments:** Orsi and Cavallari (1890: 800 no. 6, 940); Orsi and Caruso (1892: 172 no. 655, 176 no. 682, 179 no. K).

³⁷ **Earrings:** Orsi and Cavallari (1890: 803-806 no. 16, 889-891 no. 240); Orsi and Caruso (1892: 126 no. 630, 127 no. 639, 128-129 no. O, 245 no. 705, 280 no. 81V, 281 no. 89V, 286 no. 805, 287 no. 814). **Pins:** Orsi and Cavallari (1890: 807-815 no. 21, 815-816 no. 22, 836-837 no. 76); Orsi and Caruso (1892: 172 no. 650, 279 no. 77V); Agnello (1949: 193-194). **Rings:** Orsi and Cavallari (1890: 807-815 no. 21, 815-816 no. 22, 827-830 no. 69, 836-837 no. 76, 838-839 no. 86, 850 no. 112); Orsi and Caruso (1892: 131 no. 647, 174 no. 664, 178-179 no. 10V, 182-183 no. 38V, 245 no. 705, 256 no. 710, 248 no. 734, 250 no. 761, 251 no. 69, 278 no. 768, 279 no. 77V, 288 nos. 825, 828); Agnello (1949: 193-194). **Necklaces:** Orsi and Cavallari (1890: 836-837 no. 76); Orsi and Caruso (1892: 132 no. 648). **Spirals:** Orsi and Cavallari (1890: 836-837 no. 76, 862-863 no. 165, 889-891 no. 240, 900 no. 301); Orsi and Caruso (1892: 177 no. 2V, 178 no. 6V, 250 no. 754, 279 no. 77V, 285 no. 801, 286 no. 805, 287 no. 120, 288 nos. 825, 828). **Basin:** Orsi and Cavallari (1890: 815-816 no. 22).

³⁸ **Swords:** Gentili (1954b: 96 fig. 20). **Knives:** Orsi and Cavallari (1890: 802 no. 11); Orsi and Caruso (1892: 286 no. 805, 288 no. 827). **Two-edged axes:** Gentili (1954b: 87). **Arrowheads:** Orsi and Cavallari (1890: 896 no. 278); Gentili (1954b: 86). **Strigils:** Orsi and Cavallari (1890: 867 no. 168); Orsi and Caruso (1892: 279 no. 773). **Nails:** Orsi and Caruso (1892: 248 no. 733, 250 no. 762, 281-282 no. 94V). **Pins:** Gentili (1956: 169). **Fish-hooks and needles:** see below. **Iron fragments:** Orsi and Cavallari (1890: 840-844 no. 94, 844-846 no. 95); Orsi and Caruso (1892: 211-212 no. 52, 212-213 no. 58, 278 no. 768, 285 no. 801, 285 no. 801, 288 no. 828).

To judge from the incidence of metal artefacts in tombs, it seems that metal was considered a precious commodity that one generally avoided rendering useless through deposition in graves. Shepherd (1993: 86-87, 90) quantifies the phenomenon. In the 324 tombs Orsi and Cavallari (1890) published only 48, or 14.8%, contained metal.³⁹ Of the 306 in Orsi and Caruso (1892) only 127, or 41.5%, had metal in them. And in the south necropolis (Cébeillac-Gervasoni 1976-77), out of 245 graves, only 16, or 6.3%, contained metal. The reason for metal being so precious an item is not far to seek: there are no naturally-occurring metal deposits in Megara Hyblaia's territory; all metals had to be imported. It is difficult to work out the source(s) of these metals, but some, like the silver, could have come from mainland Greece.

Clay working. Two production areas, both of sixth-century date, have been found: one on the south plateau, with its kilns almost against the city wall (Broise, Gras & Tréziny 1983: 650), and the other in association with the precinct of temple B (Villard 1952; Villard & Vallet 1953: 13-18). Only the latter is published.⁴⁰ It consists solely of the foundations of a round kiln (diameter: 1.1 m.), cut into the rock; the walls were made of stone, plastered over with clay. The stoking tunnel, measuring 0.75 wide by 0.4 m. long, is on the east side. There are many signs of burning, including ashes, as well as wasters.⁴¹ Even if these production areas are of later date, there is little doubt that the working of clay is an eighth-century practice, because earlier fabrics correspond essentially

³⁹ Orsi and Cavallari (1890: 780) also noted the rarity of metal objects in these tombs.

⁴⁰ As regards the other production area, the excavators point out that "On ne peut tirer aucune conclusion définitive d'un sondage très limité, mais il est possible que le «Céramique» de la ville se trouve à la périphérie du plateau sud, à proximité du torrent San Cusmano" (Broise, Gras & Tréziny 1983: 650).

⁴¹ The wasters are illustrated in Villard and Vallet (1953: pl. I.1) and in *MH* ii (pl. 200 nos. 1-2).

to those found with the latter kiln (*MH* ii.196-199).⁴²

Numerous items were fashioned in clay: pots, lamps, figurines, loom-weights and spindle whorls, and, in one exceptional case, a Daedalic statue (Orsi 1895b), but never in the foundations or, it seems, elevations of houses and monuments (*MH* i.247). For the pottery, three phases of production have been distinguished (*MH* ii.193). The first phase, roughly 750-650, follows closely Korinthian models. In the second phase (650-600) this trend continues, but there is more experimentation with polychromy and some larger shapes (see ch. IV for detailed discussion). The third phase (600-483/2) consists only of undecorated wares. A wide range of shapes is represented in local production (*MH* ii.143-188). Lamps came in three basic type ("cocked-hat"; carinated with high tubular centre and wide flat rim, and the third differs from the latter in the narrowness of the rim) (Villard & Vallet 1955: 8-14; *MH* i.187-188). Figurines were of high quality, such as the Daedalic examples published by Vallet and Villard (1964). Pottery was only exported to early Selinous (for details, see chs. VI and X).

Silos (and grain?). Four silos have been found in the settlement: three in connection with eighth-century houses, and the fourth, datable to the early seventh century, in the northern part of the *agora*.⁴³ The French have suggested that they were

⁴² Four fabric types ("techniques A-D) have been recognised: two brownish red types, one light brown, and one yellow (*MH* ii.140-141).

⁴³ Eighth-century examples: silo **38**,13 with house **38**,10 in block 8 (*MH* i.101); silo **47**,6 with house **47**,11 in block 9 (*MH* i.118-119); silo **58**,18 with house **58**,20 in block 18 (*MH* i.144-145). Early seventh-century example: silo **41**,3 (*MH* i.110-111). Of these silos, only one (**41**,3) is illustrated because of its importance in dating a *stoa* (*MH* i.392). However, the few general remarks made about these silos establish beyond reasonable doubt that they are all basically of uniform shape and size (*MH* i.258). Silo **41**,3 shall become the model type for the present argument. For the possible socio-economic significance of the eighth-century silos, see ch. IV. The silos went out of use around the mid-seventh century. The excavators suggest that excessive moisture was responsible for this, explaining the abandonment as due to the Megarians attempting to impose old traditions on new

intended for storing grain (*MH* i.258).⁴⁴ The silos were bottle-shaped structures carved into the rock, with a diameter of *ca.* 1 m. and a depth of *ca.* 2.7 m. On the basis of these dimensions, the silos could have each contained about 1,718 litres, or 1,326 kg. (at 0.772 kg./litre: Foxhall & Forbes 1982: 44).⁴⁵ Gallant (1991: 96) converts at 3,100 kilocalories per kg; on this reckoning, the silos could have stored up to 4,111,518 kilocalories.⁴⁶ This total represents, owing to the changing needs of the family during its life cycle, more or less double the yearly cereal requirement, as calculated by Gallant (1991: 72-73), who assumes that 65% of the diet was made up of cereals. Ancient and modern farmers commonly put only half that amount into storage (Gallant 1991: 94-98).

What about the remaining silo found in the *agora*? Here, too, the context is clear, but the silo's placement suggests a civic rather than private use. Gallant (1991: 179-181) believes that communal storage was uncommon even in classical and hellenistic periods, let alone in the archaic (Garnsey & Morris 1989: 102). Unless details of the original

environmental conditions (*MH* i.258). On the excavators' reasoning, the silos would have been carved in conditions dry enough for storage, and there is no doubt that this was the case. But this does not explain why there should have been more moisture in the ground in the seventh century than originally encountered in the eighth century. I would like to suggest that land clearance could have upset the water-table, for when land is cleared particularly of trees, there is more moisture in the ground which would previously have been absorbed by vegetation. I suggest, therefore, that with the passing of two or three generations the silos were no longer usable. On the neglected subject of land clearance, see the exhortations of Bakhuizen (1975: 214, 216).

⁴⁴ I assume the same. Grain production at Megara Hyblaia is indicated by millstones. When the latter have been discussed, they are reported as having been found in archaic domestic contexts (Villard 1951: 52), or briefly mentioned as being made of volcanic stone (Vallet & Voza 1984: 25). Orsi found the remains of carbonised grain in two archaic tombs (Orsi & Cavallari 1890: 802 no. 11, 856 no. 136).

⁴⁵ The procedure for converting the dimensions into litres is that of Robinson and Graham (1938: 313-314 n. 6).

⁴⁶ Grain could be stored in facilities other than in silos (Garnsey 1988: 55; Gallant 1991: 96). Therefore, the four silos that are known cannot be taken as an absolute overall index for grain storage at early Megara Hyblaia.

context have been destroyed by later building activity, or missed by the excavators. But if taken at face value, this silo might have served communal storage purposes.

Much of analysis in this and the previous chapter has been based on assumptions about the contents and ownership of these four silos. At the very least I hope to have shown that even the seemingly prosaic components within a settlement deserve to be studied beyond their utility for dating monuments.

Textiles. In the first season of excavation, Villard (1951: 52) mentioned finding hundreds of "pesons pyramidaux" (loom-weights) in archaic houses.⁴⁷ The discovery of "bobines" (spindle whorls) has also been reported from similar contexts (*MH* iii.151). This material has been interpreted as evidence that Megara Hyblaia had an important wool textile industry (*MH* i.411; Martin, Pelagatti & Vallet 1980: 416; *MH* iii.150). However, no loom-weight or spindle whorl has ever been published, and it is impossible to test the validity of the interpretation advanced. While it is tentatively reasonable to suppose that wool was the fibre used, especially since mainland Megara was known for its woollen products by at least the classical period (Legon 1981: 24, 87-88; Bettalli 1982: 271-272), this must remain a possibility as long as the relevant finds remain unpublished. For we must exercise caution in building up interpretations on still uncertain data.⁴⁸

Horses. Horses may have been kept. This animal is represented on a dinos fragment discussed in the previous chapter, and clay horses with riders have come to light

⁴⁷ Some have also been found in archaic tombs: in the west necropolis, Orsi and Caruso (1892: 129, tomb I; 246, tomb 713; 246, tomb 715; 248, tomb 739); in the north necropolis, Gentili (1954b: 98-99, tomb H).

⁴⁸ Textile studies require accurately-published material to draw conclusions (Barber (1991: 51-52, 92-93, 387-393). Note Morel's (1978) demolition of the mirage modern scholars have created from literary evidence of a Tarentine wool industry in Roman times.

amongst the grave offerings of some archaic tombs.⁴⁹ As argued earlier in this chapter, the territory Megara Hyblaia would have provided suitable environmental conditions for horse-raising.

Fishing. Metal fish-hooks and needles for mending nets have been found in some archaic houses (Martin, Pelagatti & Vallet 1980: 437, with pl. 135; *MH* iii.151). This material has received little publication. Its presence indicates that fished formed part of the livelihood of archaic Megara Hyblaia.

It is clear that economic archaeology has not been high on the reserach agenda of the French excavators, and much of the above material is in need of publication.

II. THE LITERARY EVIDENCE⁵⁰

Several ancient sources, all writing in the Roman period, speak of the honey of Hybla; the main passages are as follows:⁵¹

(i) Virgil, *ecloga* i.53-54:

hinc tibi, quae semper, vicino ab limite saepes Hyblaeis
apibus florem depasta salicti saepe levi somnum suadebit
inire susurro;

⁴⁹ The tombs in western necropolis: Orsi and Cavallari (1890: 834, 932, 937; cf. Frederiksen 1968: 30 n. 79).

⁵⁰ There are two instances where evidence referring to the economy of mainland Megara (Legon 1981: 25, 87) has mistakenly been cited as belonging to Megara Hyblaia: onions in *BTCGI* ix.514, and salt in Vallet and Voza (1984: 35). For the latter case a context can be suggested. Vallet and Voza cite the Pliny passage (*NH* xxxi.87.4) to give their general argument about the destructive effects of industry more rhetorical force. Vallet and Voza are indeed correct in saying that favourable conditions did once exist for salt production along Megara Hyblaia's coastline (see below), but the ancient evidence refers to mainland Megara, not to Megara Hyblaia.

⁵¹ The honey of Hybla was used as an ornamental epithet by later (Roman and modern) poets (Clausen 1994: 52). These poetic repetitions contain nothing of value for the present discussion (for the general problem of using literary repetitions for reconstructing the ancient economy, see Morel [1978]).

On this side, as always, on your neighbour's border, the hedge whose willow blossoms are sipped by Hybla's bees will often soothe you to slumber with its gentle hum.

(ii) Strabo vi.2.2 (C267):

[φησὶ Ἐφορος] τοὺς μὲν οὖν Χαλκιδέας κτίσαι Νάξον, τοὺς δὲ Δωριέας Μέγαρα, τὴν Ὑβλαν πρότερον καλουμένην. αἱ μὲν οὖν πόλεις οὐκέτ' εἰσὶ, τὸ δὲ τῆς Ὑβλης ὄνομα συμμένει διὰ τὴν ἀρετὴν τοῦ Ὑβλαίου μέλιτος.

[Ephoros says] that, for their part, the Khalkidians founded Naxos and the Dorians Megara, previously known as Hybla. These cities no longer exist, but the name Hybla survives because of the excellence of Hyblaian honey.

(iii) Pliny, *historia naturalis* xi.32:

ibi optumus semper ubi optimorum doliolis florum conditur. fit Atticae regionis hoc et Sicalae Hymetto et Hybla, apricis locis, mox Calydna in insula.

It is always of the best quality where it is stored in the calyces of the best flower. This is the case at Hymettus and Hybla in the region of Attica and Sicily, sunny places, and also on the island of Calydna.

Only passages (ii) and (iii) contain topographical clues as to the location of Hybla, the centre of production. Pliny situates Hybla in very general terms in Sicily; Strabo, by contrast, is more specific, connecting Hybla with Megara Hyblaia. The geographer points out that, although Naxos and Megara Hyblaia no longer existed in his day, the memory of the latter city lived on owing to the excellent quality of the honey of Hybla. Strabo makes it clear that Megara Hyblaia was responsible for the honey of Hybla. But which Megara Hyblaia: archaic or hellenistic, or both?⁵² The Virgilian passage (i) establishes a

⁵² The French excavators have scarcely tackled this and other questions concerning the honey of Hybla (*MH* iii.121, 124; missed altogether at *MH* i.411; cf. *BTCGI* ix.514). Vallet and Voza (1984: 19) simply note that "...i monti Iblei [sono] coperti oggi ancora da quelle piante odorose chiamate qui 'seddaredde' di cui vanno pazze le api."

terminus ante quem of the first century BC, but that is not sufficient enough to answer the foregoing question. Archaeological explorations have not revealed, or succeeded in recognising, any telling signs of honey production, though we must entertain the possibility that hives and other beekeeping equipment were constructed in perishable materials (on the archaeology of beekeeping, see Crane 1983). Can the absence of archaeological data be made up somewhat by positing the requisite environmental conditions for beekeeping?⁵³

Two possible scenarios could be put forth. On the one hand, Hyblaian honey might be regarded as hellenistic. Excavations at Megara Hyblaia have revealed that the hellenistic city was only some 2-3 hectares in size. This implies a population considerably smaller than during the archaic age, presumably exploiting only a fraction of the landscape as well (Vallet & Voza 1984: 60-61). In this scenario, wild vegetation may have taken over land that was once arable, creating conditions conducive for beekeeping. On the other hand, the archaic context is also possible. Studies have shown that the honey bee often forages in areas up to 10 km. away from the hive (Gould & Grant Gould 1988: 34, 36). It is conceivable that the hives may have been situated somewhere in the territory, and that the bees travelled to them after foraging in the uncultivated outer reaches of the territory. Thus the bee could have easily been part of the archaic economy.

Evoking the type of landscape which beekeeping implies cannot, therefore, produce firm conclusions. The honey of Hybla mentioned in literary sources can be accommodated in both an archaic and hellenistic context; we must, accordingly, suspend drawing conclusions until new evidence is produced.

⁵³ Compare Isager and Skydsgaard (1992: 96) and Burford (1993: 144-145).

III. FILLING OUT THE PICTURE

What is known of the economy of archaic Megara Hyblaia , from archaeological and literary sources, represents only part of the whole. More complete reconstruction of the economic system will be possible only when studies aimed at retrieving this sort of information are undertaken. Until such a time, some recent data can be used, as suggestive aids, to help fill out the ancient picture as it presently stands.

In Pollastri's (1948-49: i.52) classification, the soil types found in Megara Hyblaia's territory (types 4-5, 8-11) are highly suitable for the growing of cereals, olives, vines, and fruit trees. Agricultural statistics from the province of Siracusa are available for 1959, giving an idea of how the land has been exploited in recent times. Cereals occupy top place, with 54,422 hectares, or 27.2% of all agricultural land (totalling 200,000 hectares) under cultivation; production amounted to 445,400 quintals, just under 6% of Sicily's total production (Milone 1959: 105). Olive production took up 10.1% of agriculture land (20,151 hectares), resulting in 308,700 quintals, about 13% of the island's output (Milone 1959: 139, 143). Land given over to the vine comprised 5.1% of the total (10,239 hectares); cultivation was restricted largely to the south-west corner of the province, around Noto and Vittoria (Milone 1959: 120, 125). 470,200 quintals (4.4% of Sicily's output) were produced. Of much greater agricultural import is the almond. The province of Siracusa was responsible for 14.4% of total Sicilian output, with 10.2% of agricultural land (20,361 hectares) producing 121,400 quintals (Milone 1959: 148). One-quarter of all Sicilian almond production is centred around the Gulfs of Syracuse and Gela; for many towns the almond is "la prima risorsa" (Milone 1959: 146, 148; *cf.* King 1973: 118-119). Citrus fruit trees were planted on about 6% of agricultural land (1,129 hectares), with the province leading the way in the production of oranges, but in third and fourth place

respectively for mandarin and lemon output (Milone 1959: 186, 189, 193). The remaining agricultural land was used for vegetables and other tree-crops, like pistachio nuts and carob beans (Milone 1959: 151-168).

Offshore resources have been little exploited in recent times: there is less and less reliance on the sea due to industrialisation (Vallet & Voza 1984: 35). Prior to this transformation, the most commonly caught fish included sardine, anchovy, and tunny (*AHI* iii.147-149; Vallet & Voza 1984: 35; statistics unavailable). Another resource extracted from the sea was salt, especially around Augusta and the Thapsos peninsula, where conditions were best (Vallet & Voza 1984: 35; *cf.* *AHI* iii.184).⁵⁴ Up to 15-20 tonnes were produced annually.

Trade and Exchange

Introduction

Any discussion of Megara Hyblaia's economic transactions with the outside world is presently beset by two limitations. Evidence is lacking for intra-Sicilian transactions with both Greeks and natives. Although ideas clearly travelled between the island's various *poleis*, economic transactions have generally been extremely difficult to pin down (Finley 1979: 34; Morel 1983a: 561-562; Rihll 1993: 93). Contacts with native communities have sometimes been easier to document, but for Megara Hyblaia we have nothing to go on: native sites within the territory disappear from the archaeological record by early archaic times (see ch. IV), and those native sites outside Megara Hyblaia's territory that had contacts with Greeks seem to have been involved only with Leontinoi

⁵⁴ This possibility is missing in Wilson (1990: 237-238). On the end of salt production in the Bay of Megara, see Vallet and Voza (1984: 36).

and Syracuse (Procelli 1989), at least so far as it appears to us: intra-Sicilian contacts are mostly unidentifiable because of the difficulty in tracing Megara Hyblaian activity in extra-territorial contexts.⁵⁵ Thus, in what follows, we are forced to concentrate on the non-Sicilian world.

External Contacts: the evidence of pottery

Imported pottery forms the largest single class of item indicating external contacts.⁵⁶ Large quantities of imported pottery have been unearthed in more than a century of archaeological exploration at Megara Hyblaia. The quality of publication varies considerably: much has only been published in cursory fashion.⁵⁷ By far the best published sample of imported pottery appears in *MH* ii.15-135, which contains the settlement pottery uncovered between 1949 and 1961. Material subsequently excavated, though unpublished, is reported as simply adding more of the same results presented in *MH* ii (Vallet 1978: 25). I will use the *MH* ii imported pottery sample as the basis for the present discussion, in the belief that this well-published sample has had the most archaeological control exercised on its retrieval and documentation, and that, in any case, the settlement pottery gives a more representative cross-section of what wares Megara

⁵⁵ Local pottery travelled, for a brief time only, to Selinous, and coinage is completely absent at archaic Megara Hyblaia (see above). Therefore, two crucial elements have to be eliminated from the discussion before it even begins.

⁵⁶ Compare Dunbabin (1948: 226): "...we have to base most of our arguments on pottery..."; and Finley (1979: 32): "Our knowledge of Sicilian commerce for the whole archaic period rests almost entirely on a single commodity, painted pottery." Megara Hyblaia's metal artefacts do not betray outside influence (*cf.* Shepherd 1993: 99). General signs of external contacts, apart from pottery, will be noted in the course of this discussion.

⁵⁷ This is a problem particularly with excavations conducted by Orsi: note the difficulties Shepherd (1993: 210-213) encountered in dealing with this early material. The French long ago promised a separate volume on cemetery finds (*MH* ii.7 n.1), but this has yet to appear.

Hyblaia imported.⁵⁸ The aim is first to examine the patterns of pottery importation, and then turn to see whether this material can reveal something about the economy.⁵⁹

In the second half of the eighth century (750-700), Corinthian products make up about 97% of pottery imported, with the remainder shared by Argive, Cycladic, and Attic wares (about 1% each) (fig. V.4).⁶⁰

Much the same picture emerges for the next period, with Korinth once again dominating at 98.5%; Argive pottery makes up most of the remainder, with Attic and Cycladic bringing up the balance.⁶¹

The second half of the seventh century (650-600) sees a wider variety of importations. Korinth controls about three-quarters (75%) of the total, with the remaining

⁵⁸ A limited range of shapes is associated with funerary contexts. The main shapes include various types of cups, small amphorae, lekyphoi, aryballoi, and alabaster (compare, for instance, Orsi & Cavallari 1890: 780-785; Gentili 1954b: 81-84, 88-90, 94-99). I will note any published information that modifies in any way the information contained in *MH ii*.

⁵⁹ The procedure adopted in arriving at the patterns is the following: the patterns are discussed in fifty-year blocks because, apart from Corinthian and Attic material, other imports can only be dated to within fifty or one hundred years. With regard to the latter, the amounts involved are equally distributed into two fifty-year periods. It is a great pity that the excavators of Megara Hyblaia chose not to include the quantities involved in local pottery assemblages (*MH ii*.189; see ch. IV as well), for, had they done so, Fulford's (1987) interdependence model could have been applied.

⁶⁰ Of the 676 pottery items, 655, or 97%, are of Corinthian manufacture; 9, or 1.3%, are Argive; 7, or 1%, are Attic; and 5, or 0.7%, are Cycladic.

⁶¹ 8,631 items belong to this period. Of these, 8,471, or 98.1%, are Corinthian; 126, or 1.46%, are of Argive origin; 31, or 0.36 %, are Attic, and 3, or 0.035%, are Cycladic. The seventh-century Argive material is of the so-called Argive monochrome ware. It now seems likely that this ware could have also been produced in Greek Italy (Kourou 1988: 319), but how much, if any, of the Argive monochrome at Megara Hyblaia needs to be deleted from the list of imports remains to be established. In *MH ii*.93-94 no Attic material of the first half of the seventh century was identified. Tréziny (1979) has filled in the gap, demonstrating, via stylistic and clay analysis, that 31 sherds originally published in *MH ii* as local should now be identified as Attic. I have added these sherds to the totals of *MH ii*.

Imported Pottery at Megara Hyblaia

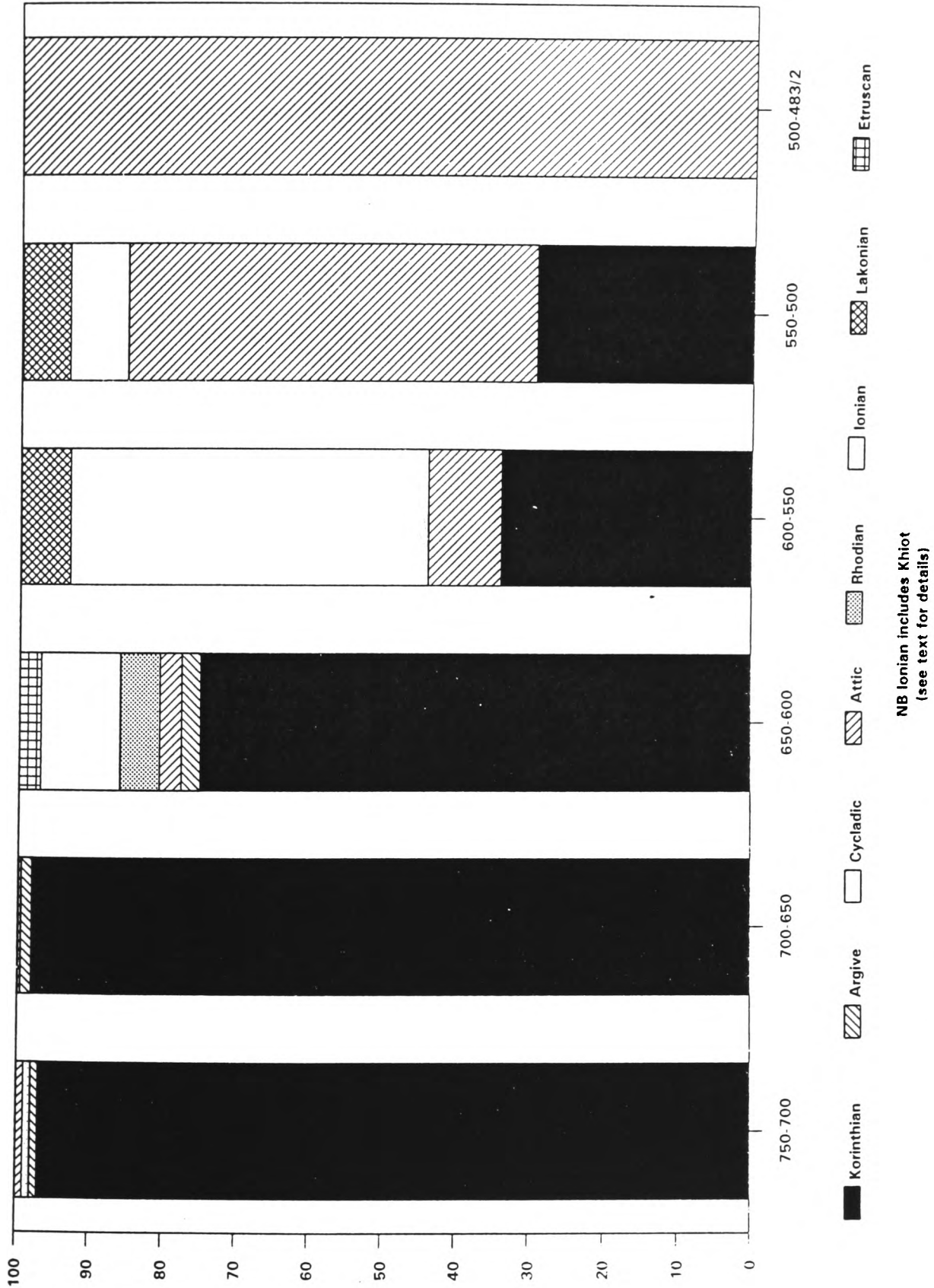


Fig. V.4. Patterns of pottery importation at archaic Megara Hyblaia.

quarter consisting of 11% Ionian, 5.4% Rhodian, 3% Attic, 3% Etruscan, and 2.6% Argive.⁶² We may also note here a newcomer to the list of imports: four items of Phoenician pottery, all of seventh-century date, have been found in settlement and burial contexts. In the latter context, there are three items used as urns: an amphora "à fond bombé" from the south necropolis (Gras 1985: 292 no. 11), and two amphorae "à fond pointu" from the northern necropolis (Gras 1985: 323 nos. 8-9). The latter amphora type was probably made in the western Mediterranean (Gras 1985: 323). The settlement has produced a sherd of a red-slip plate, from a well datable to before the mid-seventh century (Gras 1985: 303 with n. 32).

Korinthian supremacy in the pottery trade recedes substantially in the first half of the sixth century (600-550). At 48%, Ionian imports now occupy the foremost position; Korinth follows with 34%; Athens is next with 10%; Lakonian (7%) and Khiot (a little more than 1%) wares supply the rest.⁶³ Two Etruscan amphorae (types EMC 1 and 2 [=3A of the Pys]) were discovered in the early 1970s in the south necropolis (Gras 1985: 361); they can be dated to this half-century (Gras 1985: 329-332).

⁶² 4,953 items are assigned to this half-century; 3,716 of these, or 75%, are of Korinthian manufacture; 544, or 11%, are Ionian; 265, or 5.4%, Rhodian; 154, or ca. 3%, Attic; 147, or ca. 3%, Etruscan; and 127, or 2.6%, Argive.

⁶³ A total of 1,272 items forms the amount for the half-century in question. Of these, 606, or 48%, are of Ionian origin; 432, or 34%, are Korinthian; 127, or 10%, are Attic; 89, or 7%, are Lakonian; and 18, or slightly more than 1%, are Khiot. There is also an upsurge in Ionian influence in the art of Megara Hyblaia which coincides with this dramatic increase in imported pottery (Barletta 1983: 137-168). Gras (1991) connects this phenomenon with the arrival of Ionian immigrants, one of whom, at least, seems to be attested at Megara Hyblaia, namely the mid-sixth *kouros*, with inscription, of the doctor Sombrotidas, son of Mandrokles, used as a grave monument (Bernabò Brea & Pugliese Carratelli 1946-48). Various clues point in the direction of Ionia: the patronymic (Bernabò Brea & Pugliese Carratelli 1946-48: 68; Arena 1989: no. 3; Dubois 1989: 28-29 no. 22); some of the inscription's letter-forms (A.W. Johnston 1989: 135); and some artistic conventions (Barletta 1983: 143).

In the second half of the sixth century (550-500), the same players as in the previous period are still involved, but this time the order has changed in two noteworthy ways. Attic wares take the lead for the first time, supplying 56% of the imported pottery. Korinth maintains second place with 30%; Ionian pottery falls from its top position, in the preceding half-century, to third, making up 6.7% of the overall assemblage. Lakonian pottery ties the latter for third with 6.7%, whereas the level of Khiot imports remains more or less stable at just over 1%.⁶⁴

All but one of these exporters disappear from the imported pottery assemblage of the next period (500-*ca.* 483/2); apparently only Attic pottery was imported (a total of 1,090 items).

There is nothing surprising in the patterns just outlined. The bulk of the pottery derives from two main sources: Korinth and Attika. Attic pottery began to oust Korinthian at Megara Hyblaia, as in most of the western Mediterranean, in the later sixth century, gradually becoming the dominant ware (Salmon 1984: 109-116). Apart from Ionian wares, and then only briefly, the remaining wares (Lakonian, Argive, Rhodian, Khiot, Cycladic, Etruscan, and Phoenician) never represent in excess of 10% of the whole.

We need to turn now to addressing whether the imported pottery can say anything about the economy of archaic Megara Hyblaia. How much emphasis should be given to pottery in reconstructions of the ancient economy? Closed pottery shapes, the "vases-récipients" of the French (Vallet & Villard 1963: 209; Morel 1983a: 555; Gras 1989: 403), have, rightly, been put under little or no scrutiny in recent debate. For such pots

⁶⁴ 1,328 items belong to the last half of the sixth century. 741, or 55.8%, are of Attic origin; 391, or 29.4%, are Korinthian; 89, or 6.7%, are Ionian; 89, or 6.7%, are Lakonian; and 18, or 1.3%, are Khiot.

usually acted as containers for the transport of products from one area to another, and are thus more useful in economic history (Gras 1987). The focus of debate has been pottery of open shapes, of whether there was a pottery trade in what the French call "vases-marchandises". On this question the whole spectrum of opinion has been held, from scholars who maintain that such a trade existed (*e.g.*, Boardman 1988) to those who maintain that economic reconstructions have been blinded by the so-called "positivist fallacy", in which the rôle of pottery has been over-estimated (*e.g.*, Snodgrass 1980a: 126-128). The latter viewpoint seems, in various degrees of adherence, to be gaining ground (Morel 1983a: 550-551; 1983b; Gras 1989: 404; Rouillard 1991: 83; and most radically in Gill 1994). This group of scholars has at the same time rightly stressed that the ancient economy was primarily concerned with obtaining life essentials (Mele 1979: 74), some of which Morel (1983a: 552-555) lists: metals, foodstuffs (cereals and fish), salt, hides, textiles, millstones, and timber. The position adopted here is that both sides can co-exist, though not on equal terms. Much effort in the ancient economy doubtless went towards acquiring the means of living, but to minimise completely the pottery trade is, I believe, to go too far in the other direction (see now Osborne 1996a, arguing in favour of a pottery trade). I begin with the "vases-récipients".

Among the Korinthian imports there are three closed shapes, aryballoi, alabastra, and amphorae, notable for the consistency of their appearance, reaching prominent peaks in EC times. If the aryballoi and alabastra came to Megara Hyblaia with contents, perfume or perfumed oils would probably have been the products contained (Salmon 1984: 117-118). This suggestion perhaps receives confirmation from the fact that the

alabastra were mostly found in votive contexts, and the aryballoi as often as not.⁶⁵ The amphorae, on the other hand, are not as numerous in appearance as the previous two shapes.⁶⁶ Oil is believed to have been transported in these amphorae (Whitbread 1995: 257).

Amphorae are essentially the only closed shape amongst the Attic imports.⁶⁷ SOS amphorae comprise about 90% (159 of 166 items) of the amphorae up until 580, when SOS amphorae stopped being produced. The Attic amphorae imported after 580 are both less numerous and more varied in types.⁶⁸ Four pieces are exceptional: one Tyrrhenian amphora, one Panathenaic amphora, and two Nikosthenic amphorae. The latter could have exported for their own sakes (Osborne 1996a: 32-39), or as both works of art and containers of oil.⁶⁹ Generally speaking, oil is widely thought to have been the product exported in Attic amphorae.⁷⁰

⁶⁵ Of the 910 alabastra, 842, or 93%, come from votive contexts; 1,349 aryballoi are known, of which 736, or 55%, derive from votive contexts. These two shapes frequently occur in funerary contexts as well, and this seems to suggest that they contained something.

⁶⁶ There are 125 items of amphorae; 83 of these, or 66%, come from votive contexts. The study of Korinthian transport amphorae began in earnest more than a decade after the publication of *MH ii*. The examples that have been found at Megara Hyblaia, largely of seventh-century date (*MH ii*.50, 57-58, 67), belong to the "Type A" variety (Whitbread 1995: 256-257).

⁶⁷ Two items of early fifth-century alabastra exist (*MH ii*.119). There are 245 amphorae items in *MH ii*, with the following chronological distribution: 5 (750-700), 154 (650-600) (all SOS), 2 (600-575), 5 (575-550), 33 (550-525), 38 (525-500), and 8 (500-483/2). Five more SOS amphorae, all datable to the second half of the seventh century, have been found in the south necropolis (Cébeillac-Gervasoni 1976-77: 591-594, tombs A16, B70, C209, C218, and C224; these do not appear in Johnston & Jones 1978: 118, 141).

⁶⁸ There are 85 items (*MH ii*.96, 101-102, 106-107, 116-117, 119).

⁶⁹ Valavanis (1986) argues this second possibility for Panathenaic amphorae (against which viewpoint, see Gras 1987: 49-50).

⁷⁰ For oil in the SOS amphorae: Vallet (1962b: 1558-1561); Johnston and Jones (1978: 140); Gras (1987: 46); for oil generally as an export: Sallares (1991: 303, 308-309). There is a graffito on the neck of one

There are three closed shapes from the east Greek world: amphorae, alabastra, and askoi. 188 items of Ionian wine amphorae are known, mainly of sixth-century date, and 28 Khiot ones as well (*cf.* Whitbread 1995: 135-138). The (Ionian) alabastra probably contained unguents, for all 49 alabastra were found in votive contexts. The three askoi may have contained, if anything, similar substances.

The likeliest items transported in the Phoenician and Etruscan amphorae are wine or oil (Gras 1985: 254). The three Etruscan aryballoi from the settlement could have also carried the latter commodity.

The "vases-marchandises" form the bulk of the imports, something to the order of 84% (15,033 items out of a total of 17,931). Korinth, Attika, and Ionia in that order furnish about 96% of all such imports (14,459 of 15,033 items), and within that group Korinth is dominant with 75% (11,289 of 15,033). Attika has 13%, and Ionia the remaining 12%. Over a dozen shapes are represented amongst the Korinthian material (table V.2). Cups of all kinds, oinochoai, olpai, pyxides, and kraters are the most popular shapes.⁷¹ The most common Attic shapes overlap with some of the latter: again, several types of cups, kraters, pyxides, oinochoai, and olpai, the sole difference being lekythoi (table V.3).⁷² Cups occur most frequently in the Ionian imports, with small amounts of lekanai, plates, bowls, dinoi, oinochoai, lydia, and a krater (table V.4). Of the four remaining exporters, who make up 4% of total imports, Argive comes first with almost

of the SOS amphorae from the south necropolis, which reads *oxa*, perhaps for *oxos*, vinegar (Gras 1985: 277 n. 101). Gras (1987: 47-49) himself sees this as a secondary usage.

⁷¹ The shapes imported by Megara Hyblaia can be paralleled also at Selinous (see ch. X). Generally speaking, the same shapes largely appear to have been imported from the same producers; this clearly indicates a pattern that is widely discernible.

⁷² Dr M.E. Curry is studying the Attic material for a forthcoming monograph (see, in the meantime, Curry 1993: 86-87).

	AL	AM	AR	B	CU	D	HY	KA	KO	KR	OI	OL	PH	PI	PL	PY	SK	TOTAL
750-710	-	-	17	-	349	-	10	-	-	83	67	-	-	-	4	7	108	655
710-625	-	-	650	-	55	-	2	11	-	47	1015	85	1	-	11	354	6230	8459
7th. cent.	-	14	-	-	-	-	3	-	-	-	-	-	-	6	-	-	-	23
640-625	61	-	215	-	101	9	-	-	1	-	63	192	-	-	1	29	15	684
EC	849	101	454	7	1	-	-	-	161	6	393	289	-	-	17	203	536	3017
MC	-	-	3	-	8	-	-	-	28	60	19	1	-	-	-	16	232	367
LC I	-	1	10	-	-	-	-	-	10	4	3	1	-	-	-	23	13	65
LC II	-	-	-	-	-	-	-	-	1	-	5	-	-	-	-	2	383	391

Table V.2: Overview of Korinthian Imports by Period and Shape.

(Abbreviations of Shapes: AL=alabastron; AM=amphora; AR=aryballos; B=bowl; CU=cup; D=dinos; HY=hydria; KA=kalathos; KO=kothon; KR=krater; OI=oinochoe; OL=olpe; PH=phiale; PI=pithos; PL=plate; PY=pyxis; SK=skyphos).

	AL	AM	AS	CU	D	HY	KR	KY	LA	LE	OI	OL	P	PL	PY	SK	ST	TOTAL
LG	-	5	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	7
700-650	-	-	-	-	-	-	31	-	-	-	-	-	-	-	-	-	-	31
650-600	-	154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	154
600-575	-	2	-	5	3	-	-	-	-	-	-	-	-	-	1	2	-	13
575-550	-	5	-	46	3	2	57	1	-	-	2	-	-	2	4	-	-	122
550-525	-	33	-	142	-	3	14	2	-	1	1	-	1	-	27	2	-	226
525-500	-	39	1	200	-	1	129	-	-	69	6	16	-	5	8	31	-	505
500-483	2	8	-	582	-	-	28	-	13	86	7	7	-	2	13	384	1	1133

Table V.3: Overview of Attic Imports by Period and Shape.

(Abbreviations of Shapes: AL=alabastron; AM=amphora; AS=askos; CU=cups; D=dinos; HY=hydria; KR=krater; KY=kylix; LA=lamp; LE=lekythos; OI=oinochoe; OL=olpe; P=plastic vase; PL=plate; PY=pyxis; SK=skyphos; ST=stamnos).

	AL	AM	AS	BO	CU	D	KA	KR	LE	LY	OI	PL	TOTAL
650-600 orientalising	-	-	-	11	-	7	-	-	-	-	6	3	27
650-625 black-figure	-	2	3	-	1	1	-	1	-	-	-	-	8
640-540 black glaze	-	7	-	-	819	-	-	-	-	4	-	1	831
6th cent.	-	179	-	-	-	-	-	-	-	-	-	-	179
650-550 "bucchero"	49	-	-	-	-	-	114	-	25	2	-	12	153

Table V.4: Overview of Ionian Imports by Period and Shape.

(Abbreviations of Shapes: AL=alabastron; AM=amphora; AS=askos; BO=bowl; CU=cup; D=dinos; KA=kantharos; KR=krater; LE=lekane; LY=lydion; OI=oinochoe; PL=plate).

2%, followed by Lakonian, Etruscan (the latter two just under 1%), and Cycladic in that order. The oinochoe is the most popular Argive shape, comprising 95% of imports (250 of 262 items). The Lakonian imports consist of 87% kraters and dinoi (155 out of 178 items; there are only two dinoi). Kantharoi make up 77% of Etruscan imports (112 out of 145 items), with cups and oinochoai forming almost all of the remaining material. There are only eight items of Cycladic pottery: two belong to kraters, two more to plates; the remaining four are represented by one cup, one pyxis, one oinochoe, and one bowl.

There is enough patterning in the shapes imported, regardless of the exporter, to suggest some of the uses to which the material was put. Almost 91% of these imports (13,625 out of 15,033 items) consist of mixing-bowls (kraters and dinoi), various types of cups, oinochoai, and olpai; such shapes could well have acted as "services à vin" to accompany the wine that was imported from east Greece (and perhaps from Etruria and the Phoenician western Mediterranean).⁷³ The next largest grouping (4% of the grand total) is made up of pyxides, which would have been appropriate items for female toiletry; the numerous aryballoi and alabastra, in particular, could indicate the unguents used in connection with this process. The remaining 5% of imports comprises various shapes, none of which are significant enough numerically to suggest meaningful patterning.

⁷³ Morel (1981: 509) defines "service" as "...un lot de vases de formes différentes vendus ensemble pour être utilisés ensemble...." Of the 13,625 items, 10,508, or 77%, are cups; 866, or 13.69%, oinochoai; 625, or 4.58%, kraters; 615, or 4.5%, olpai, and 32, or 0.23%, dinoi.

Conclusions

Megara Hyblaia's resource base appears to have been good. The territory was around 400 km.² in size;⁷⁴ it had much to offer, providing Megara Hyblaia with a considerable amount of reasonably watered arable and pasture land, good limestone and volcanic stone, and possibly woodland in the Heraian hills. However, metal resources were altogether absent, requiring importation. The sea could offer fish, and it is possible that conditions also permitted the establishment of salt-pans, as in more recent times. Archaeological and written sources furnish other insights into the economy: grain, metals, (woollen?) textiles, fishing, and possibly honey.

The imported pottery demonstrates a respectable range of contacts, however far removed, with mainland Greece and the Etruscan and Phoenician worlds. Study of this material strongly suggests that oils (perfumed and other) and wine were imported, demonstrating that a need was still felt to import these products almost to the very end of the archaic period.⁷⁵ Metals and marble were also imported; the origin of the former is unknown, whereas the latter can be narrowed down to the Cyclades (Paros and Naxos are the likeliest sources). In return for the imports, Megara Hyblaia could have offered things produced from exploiting land and sea, like grain, textiles, (volcanic) millstones, salt, and honey (if the last two did indeed exist in the archaic period).

This review of possible imported and exported items has relied entirely on what

⁷⁴ Many Sicilian territories still need to be precisely defined, but on present evidence Megara Hyblaia would fall at the lower end of the spectrum, in company with Himera (Coarelli & Torelli 1984: 398, 400). Mainland Megara's territory was only slightly larger at 470 km.² (Legon 1981: 22).

⁷⁵ The heyday of Sicily wine production seems to have belonged to post-archaic times (Dunbabin 1948: 220-221; Vandermerch 1994; Wilson 1990: 191-192, 263-264).

survives in the archaeological and written record; the picture is unavoidably incomplete. Much more needs to be done on defining the structure and scale of the archaic economy, and on the possible destinations of Megara Hyblaian goods.

PART H
SELINOUS

CHAPTER VI:
THE SETTING

Introduction

"...la realtà storico-culturale ed etnica della Sicilia di epoca arcaica si mostra estremamente complessa e articolata..." (Tagliamonte 1994: 90).

Such a characterisation of Sicily in this period applies with even more force to the western part of the island, which throughout history has often had a more distinctive cultural constitution than the eastern half.¹ In archaic times this cultural mosaic was made up of three elements: natives, Phoenicians, and Greeks. In establishing the framework for discussing the socio-economic evolution of Selinous, I will place particular emphasis on the nature and spatial distribution of the non-Greek peoples of western Sicily, as well as on the establishment of the Greek colonies there.

The Native World of Western Sicily

Introductory Remarks

About thirty years ago Vincenzo Tusa (1968-69: 439) began his first quadrennial report as antiquities superintendent of western Sicily by re-iterating the commonplace: the area under his jurisdiction was virtually an archaeological blank. Today this state of affairs no longer obtains in such extreme form, thanks in large part to Tusa's stimulus.² In the past few decades, considerable attention has been focused not only on augmenting the archaeological data-base but also on diversifying it. Knowledge of the native cultures relies heavily on archaeological evidence, and because of the nature of previous archaeological research in western Sicily, diversification has most benefited these cultures,

¹ Compare Philippon (1934: 321) who, after describing the basic geography of Sicily, observes as follows: "Von allen diesen Seiten hat Sizilien entscheidende geschichtliche Einflüsse empfangen."

² The recent *Festschrift* in honour of Tusa is largely representative of research projects conducted in western Sicily in recent times: cf. de la Genière et al. (1993).

for two reasons. First, unlike eastern Sicily, there was no one comparable to Paolo Orsi, who took an active interest in the study of native culture.³ Second, the scientific usefulness of the data that were retrieved has often been rendered minimal by the methods themselves and by the lack of publication (Bernabò Brea 1957: 176). Moreover, what evidence there exists is unbalanced, as elsewhere in Sicily, in favour of tombs, with settlement and palaeoenvironmental data scarce. Consequently, in-depth discussion of the native world of western Sicily is impossible, though despite these shortcomings much may fruitfully be said, however sketchy some of the resultant picture may be.

Material Culture and Ethnic Labels

It has long been common practice to label the archaeological remains in accordance with what little the ancient sources record about the native world of western Sicily. The basic archaeological culture of the area is known as the Sant'Angelo Muxaro-Polizzello culture after two important regional type sites (see below). Ancient literary tradition (e.g., Thuc. vi.2.5; Diod. v.6.2-3) maintains that roughly the eastern half of western Sicily was inhabited by a people known as the Sikans. Scholars accordingly habitually label the archaeology of this region Sikan. The Sant'Angelo Muxaro-Polizzello culture is also distributed further to the west, where ancient sources specifically call only some of the inhabitants Elymians, although these ancient sources never speak of an Ἑλυμῖα (Nenci 1990: 25).

The modern adoption of the Sikan/Elymian distinction found in the ancient sources has also caused scholars to become embroiled in a debate about the origins of the

³ By way of contrast, compare the contemporary comments for western Sicily in Gabrici (1925: 3). Admittedly, Orsi did get as far as Sant'Angelo Muxaro, but his main stamping ground was the south-east (cf. Palermo 1996: 147). S. Tusa's edited book (1994) now seems to be taking up the Orsi-like initiative that has long been absent in this part of the island.

Elymians as recorded in two ancient traditions. One tradition holds that the Elymians came from Italy (Hellanikos, *FGrH* 4 F796), the other that they were descendents of Trojans and Achaeans, who had come west after the fall of Troy (Thuc. vi.2.3). Modern scholars have either put their faith in one of the two ancient traditions or have dismissed altogether their veracity.⁴ The material culture of the so-called Sikan and Elymian regions is virtually the same.⁵ This does not necessarily mean that we are dealing with a homogenous ethnic group. On the other hand, it cannot legitimately bear the weight that has recently been put upon this evidence. Since much of this effort is methodologically unsound and misguided (as now argued by Spatafora 1996), we will examine briefly the arguments advanced.

In his attempt to find archaeological justification for the Trojan origin of the Elymians, V. Tusa (1988-89: 68) adduces parallels between certain Anatolian pots of mainly fourth- and third-millennium date and the protohistoric Sicilian material, but these parallels between material of so very different date are forced and unconvincing. S. Tusa (1990), on the other hand, has tried to bolster the case of Italian origins by suggesting that some eighth-century traits in metalwork and pottery (especially the anthropomorphic and zoomorphic handles), apparently not attested elsewhere in the Sant'Angelo Muxaro-Polizzello culture, were due to a foreign element from Daunia in southern Italy combining with the native (Sikan) substratum by a process of "eliminizzazione". The Italian origin of the Elymians has also been supported on linguistic grounds by Agostiniani (1990:

⁴ For a full collection of the ancient sources and in-depth analyses of these various modern positions, see V. Tusa (1988-89: 52-62) and Van Compernelle (1990: 74-84).

⁵ "Sembra evidente che la cultura materiale comunemente definita elima...abbia fortissimi legami con la produzione sicana della vicina valle del Platani, ed in particolare con quella di Sant'Angelo Muxaro e Polizzello" (S. Tusa 1992: 651).

367), who sees mainland Italian similarities in the Elymian language.

All these attempts, however, contain questionable methodological reasoning. The archaeological support advanced by V. Tusa for the Trojan origin of the Elymians is at best remotely similar, though ridiculously distant temporally (millennia separate the chronological periods compared). S. Tusa's attempt to provide archaeological substance to the Italian case is at least commendable in that the parallels adduced are indeed contemporary and closer to material from the Daunian region of mainland Italy. But exception may be taken to the belief, on which S. Tusa has based his argument, that changes in material culture reflect new ethnic elements.⁶ Furthermore, and more seriously, Spatafora (1996) has recently shown that the supposed Daunian features isolated by S. Tusa can be traced in even earlier native Sicilian contexts, and need in fact have nothing to do with immigrant groups. As to Agostiniani's linguistic argument in support of the Elymians' Italian origins, it is plagued by an impoverishment of evidence and by the lack of methodological rigour needed in handling linguistic evidence (see Whitehouse & Wilkins 1985: 89-98; Wilkins 1990: esp. 65-68). Very little is known about the native language(s) of Sicily, and most of the surviving evidence is either very terse, comprising little more than one or two letters scratched on a sherd, or of such minute quantities as to make any statement about the linguistic history of the area meaningless.⁷ Therefore, to regard, as Agostiniani does, the Elymian language as "imported" from peninsular Italy

⁶ For this point made specifically in the context of Italian pre- and protohistory, see Whitehouse and Wilkins (1985: 101-104), Momigliano (1992: 529), and Spatafora (1996: 156). It is interesting to note that elsewhere S. Tusa (1992a) has detected Maltese influences in the pottery of some sites in the Trapanese; following S. Tusa's line of reasoning, therefore, it could be argued that the Elymians came from Malta.

⁷ See generally Zamboni (1978), and for the Elymian, see the recent survey of Agostiniani (1990).

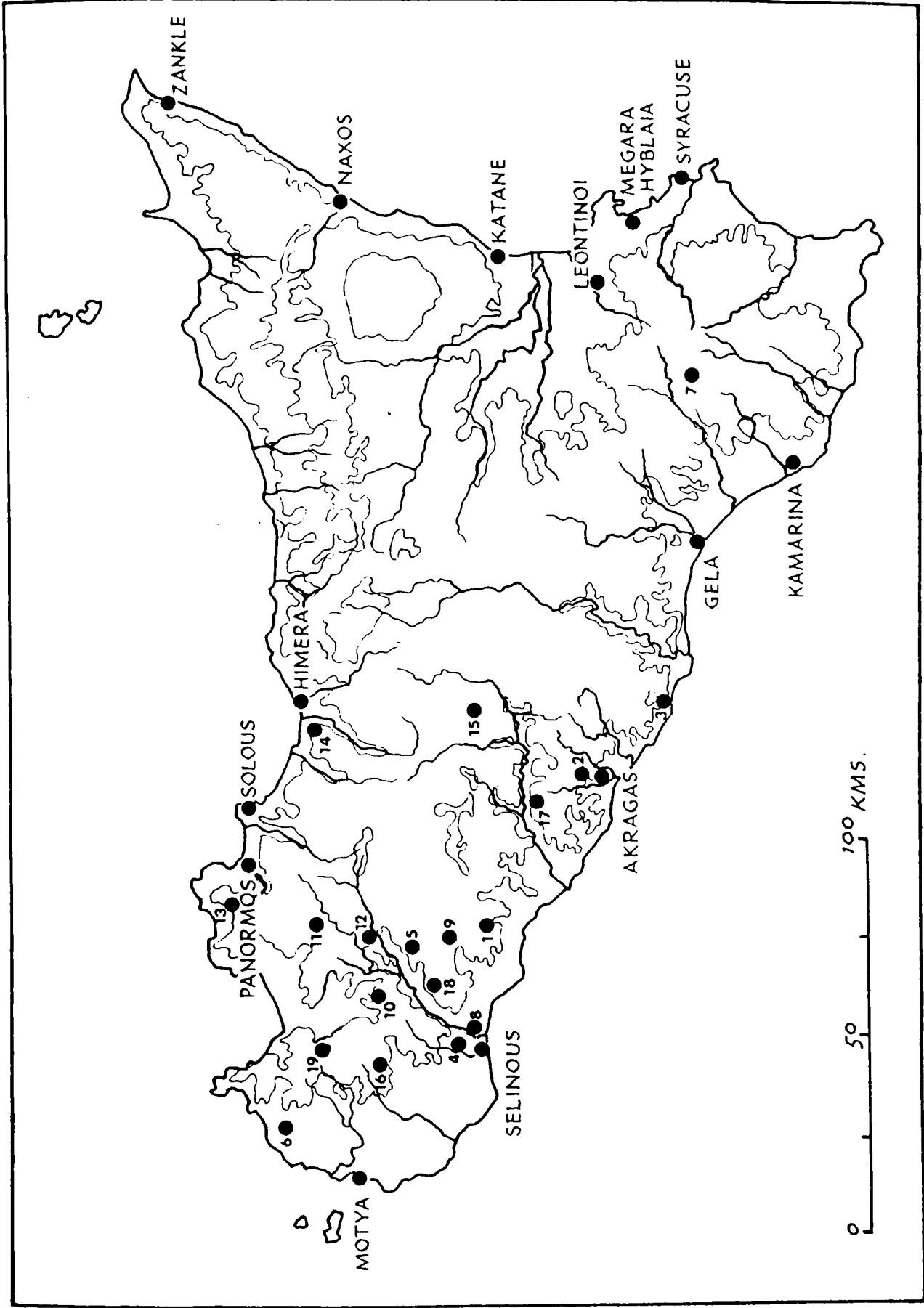


Fig. VI.1. Western Sicily, showing major sites mentioned in the text.

- | | | |
|--|---------------------|-----------------------------|
| 1. Caltabellotta | 7. Licodia Eubea | 14. Mura Pregne |
| 2. Caltafaraci | 8. Montagnoli | 15. Polizzello |
| 3. Castellazzo di
Palma Montechiaro | 9. Monte Adranone | 16. Salemi |
| 4. Castello della Pietra | 10. Poggioreale | 17. Sant'Angelo Muxaro |
| 5. Entella | 11. Monte Iato | 18. Santa Margherita Belice |
| 6. Erice | 12. Monte Maranfusa | 19. Segesta |
| | 13. Monte d'Oro | |

without really knowing anything about the linguistic history before and after this supposed event is unsound argumentation. Is it not possible that parts of southern Italy and Sicily shared the same language, or belonged to the same language group (for common links, see Zamboni 1978), but a dearth of evidence prevents us from recognising this?

If both of these points were to prove correct, it could also mean that part of the native (Sikan) culture of western Sicily was simply called Elymian by later classical sources, and that no invasion hypothesis need be sought to conform with the origins of the Elymians in these sources. It is much too soon to pass final judgement on S. Tusa's recent theory, for, as will become obvious below, archaeological research on "Elymian Sicily" is still at an early stage. In what follows I employ the term Elymian out of convention, without implying a position on the Elymian origins debate.

The Sites

The so-called Sant'Angelo Muxaro-Polizzello archaeological culture derives its name from two type sites, located respectively in the mid- and upper valley of the river Platani (fig. VI.1).

Sant'Angelo Muxaro is a hill-top settlement (351 m. asl) about 20 km. north-north-west of modern Agrigento (fig. VI.2). This site is usually equated with ancient Kamikos (for review of the debate, see Fatta 1983: 111-125). Numerous chamber tombs were cut into the south and east faces of the hillside. These tombs span several centuries in date, and most were excavated by Orsi (1932), who was able to distinguish two groups (whose validity has been reconfirmed by more recent excavations: Anagnostou 1979). Tombs VII-XIX, at the foot of the hill's south side, are the earliest in date. The bronze finds (razors and a dagger), exhibiting Pantalica North influences, date to the ninth century, whereas the pottery shows affinities with the Cassibile period (S. Tusa 1992: 589;

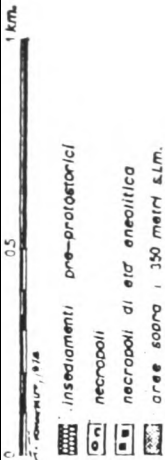


Fig. VI.2. Sant'Angelo Muxaro and part of surrounding valley (after *CdA* 18 [1979], plan A).

Palermo 1996: 148). The other tombs, higher up the same hillside, are later. One of the outstanding tombs belonging to this group is a tholos tomb dug out of the rock, known as the "tomba del Principe." This tomb, re-used in Byzantine times as a chapel, consists of two rooms, both circular in shape. The first of these rooms, the main part of the tomb, measures 8.8 m. in diameter and rises to a maximum height of 3.5 m.; a second, smaller room is attached to this grandiose chamber. The "tomba del Principe" ranks as the largest of its kind in all of Sicily (Pace 1953-54: 273-274). The remaining tombs are essentially smaller versions of the latter.⁸

The grave-goods discovered in this second group of tombs indicate that Sant'Angelo Muxaro was the chronological counterpart to the Cassibile, Pantalica South, Monte Finocchito, and Licodia Eubea phases of the native sequence of eastern Sicily, *i.e.*, dating to roughly the eighth to sixth centuries (give or take a few decades on either side).⁹ Pottery forms the bulk of the material found in the tombs, and it may be divided into three groups (Fatta 1983: 105-109; Palermo 1996: 150-153).¹⁰ The first group comprises pots with finely incised geometric motifs (often circles); a figured geometric constitutes the second group. These two groups seem to date to the eighth and seventh centuries. The third group consists of red monochrome pottery, most probably of sixth-century date. In the first half of the sixth century, Greek influence on native pottery is detectable; from the

⁸ On the funerary architecture in general of Sant'Angelo Muxaro and its territory, see Tomasello (1979).

⁹ Bernabò Brea (1957: 177); Fatta (1983: 21); La Rosa (1989: 40); S. Tusa (1992: 589); Malone *et al.* (1994: 177). A radiocarbon date from nearby Scirinda falls within the central core of these centuries, confirming the traditional chronology for the Sant'Angelo Muxaro-Polizzello culture (S. Tusa 1994: 108).

¹⁰ In the absence of stratigraphic contexts, Fatta's attempt to assign absolute dates to these three groups must be viewed as tentative, as has been pointed out (La Rosa 1989: 41; S. Tusa 1992: 648): clearly, new evidence from secure deposits is desirable.

mid-century imported Greek pottery replaced such influence altogether (De Miro 1962: 147-149).

The metal finds that survive consist solely of six gold objects (two rings and four skyphoi), mostly uncovered, without regard to stratigraphic context, by antiquarians in the mid-eighteenth century (Pace 1953-54). The combined weight of all six items is approximately 850 grammes (Pace 1953-54: 284).¹¹ The two rings are diamond-shaped (length: 35-36 mm.) (Pace 1953-54: 274-276). One of the rings, weighing 45.9 grammes, depicts a cow suckling a calf, and the other, about nine grammes heavier, a wolf. The size and weight of these two rings are unprecedented in Sicily (Pace 1953-54: 275). Of the four cups, only the whereabouts of one of them is known; it now resides in the British Museum (Marshall 1911: 161 no. 1574). But from earlier accounts we know that the remaining three are of similar shape and weight (only one, however, is decorated, like the British Museum specimen; *cf.* Pace 1953-54: 276-280). The sole surviving cup measures 14.6 cm. in diameter and 2 cm. in height, and weighs 187 grammes. Decoration comprises twisted ornamentation around the rim and, on the cup's interior, six bulls surrounding a depressed circle containing a crescent formed by raised dots. On stylistic grounds, this cup is dated to the seventh century, as are generally all the gold objects from Sant'Angelo Muxaro (Pace 1953-54: 282-283; La Rosa 1989: 41; Palermo 1996: 153). Some of the motifs on the British Museum cup can be paralleled particularly in the Phoenician-Cypriot ("fenicio-cipriota") world, and it is in this part of the Mediterranean that the origins and inspiration of all of Sant'Angelo Muxaro's gold are usually placed (Pace 1953-54: 282-284).

¹¹ One can only wonder what percentage of the original total these surviving objects represent of the great wealth they imply.

The settlement accompanying the tombs of Sant'Angelo Muxaro is often placed, though without supporting evidence, beneath the modern town (Battaglia & Alliata 1991: 10, 26). A University of Catania team conducting excavations in the area in the 1970s challenged this assumption. The objections centre around the fact that no traces of the supposed protohistoric settlement have ever come to light from this hilltop.¹² An alternative was put forth. The limited excavations carried out at the nearby site of Monte Castello (about 2 km. to the west), a rugged hill almost 500 m. in height, suggested to the Catania team that this was the territory's central place (Palermo 1979: esp. 58) (fig. VI.2). The ten small trenches opened up on the summit of Monte Castello revealed traces of frequentation stretching from the Late Bronze Age to Mediaeval times. Some remains of protohistoric/archaic walls were found (Palermo 1979: 51-57). The significance of this new settlement evidence cannot be properly understood given the limited nature of the work, and the Catania team has perhaps prematurely swung the pendulum too far in the other direction, casting the discussion in terms of choosing between one or the other of the two sites as the protohistoric centre of Sant'Angelo Muxaro. The truth must surely lie between these two extremes, since it seems rather unlikely that in this rugged landscape the dead would have been carried from Monte Castello for burial in the tombs of Sant'Angelo Muxaro, when this could have more easily been done at Monte Castello (as the tombs of various other periods found there demonstrate; see fig. VI.2). Therefore, the debate over the location of the protohistoric centre has been given a tantalising twist by the Catania team, and we are still far from a final solution (compare the attitude in

¹² The silence is thought to be significant because for years Sant'Angelo Muxaro's antiquities inspector has paid careful attention to the possible discovery of a protohistoric settlement. Time and again, however, nothing suggesting such a settlement has come to light.

Battaglia & Alliata 1991: 10).

There is a little evidence to formulate an outline of Sant'Angelo Muxaro's socio-political organisation. "Some individuals stand out as supremely rich and presumably, from the range of grave goods and their exotic origins, politically influential" (Malone *et al.* 1994: 190). As in eastern Sicily, a chief is thought to have wielded this political power. Battaglia and Alliata (1991: 25-26) have argued that population size may have been to the order of 400-725 individuals, arriving at their estimate by multiplying the surface area of the Sant'Angelo Muxaro summit (6.1 hectares) by people densities borrowed from elsewhere. This is an extremely fragile estimate in view of the fact that, as we have just seen, nothing is known archaeologically of this postulated settlement on the summit. At the very least it is permissible to hypothesise that the summit and Monte Castello settlements could have housed a community whose grave-goods indicate had developed beyond egalitarianism.¹³

The origins of this society have attracted the attention of scholars. How did some individuals at Sant'Angelo Muxaro become wealthy? Though we are still far from certainty, a consensus is now emerging that Sant'Angelo Muxaro could not have produced its wealth from grain surpluses, for the land around the site is not particularly well-suited for this purpose (pl. 15).¹⁴ Instead, it is believed that a monopoly on mineral resources, such as alum and rock-salt, of which the area is rich (Caputo 1957; 1978), could have been the source of wealth. The Phoenician-Cypriot workmanship of the gold cups points

¹³ In light of the University of Catania excavations on Monte Castello, S. Tusa (1992: 650) speaks of a demographic concentration in the Sant'Angelo Muxaro area with the arrival of the Greeks on the coast. Such a hypothesis requires confirmation.

¹⁴ La Rosa (1989: 42, 47); Battaglia and Alliata (1991: 26); S. Tusa (1992: 589); Malone *et al.* (1994: 178).

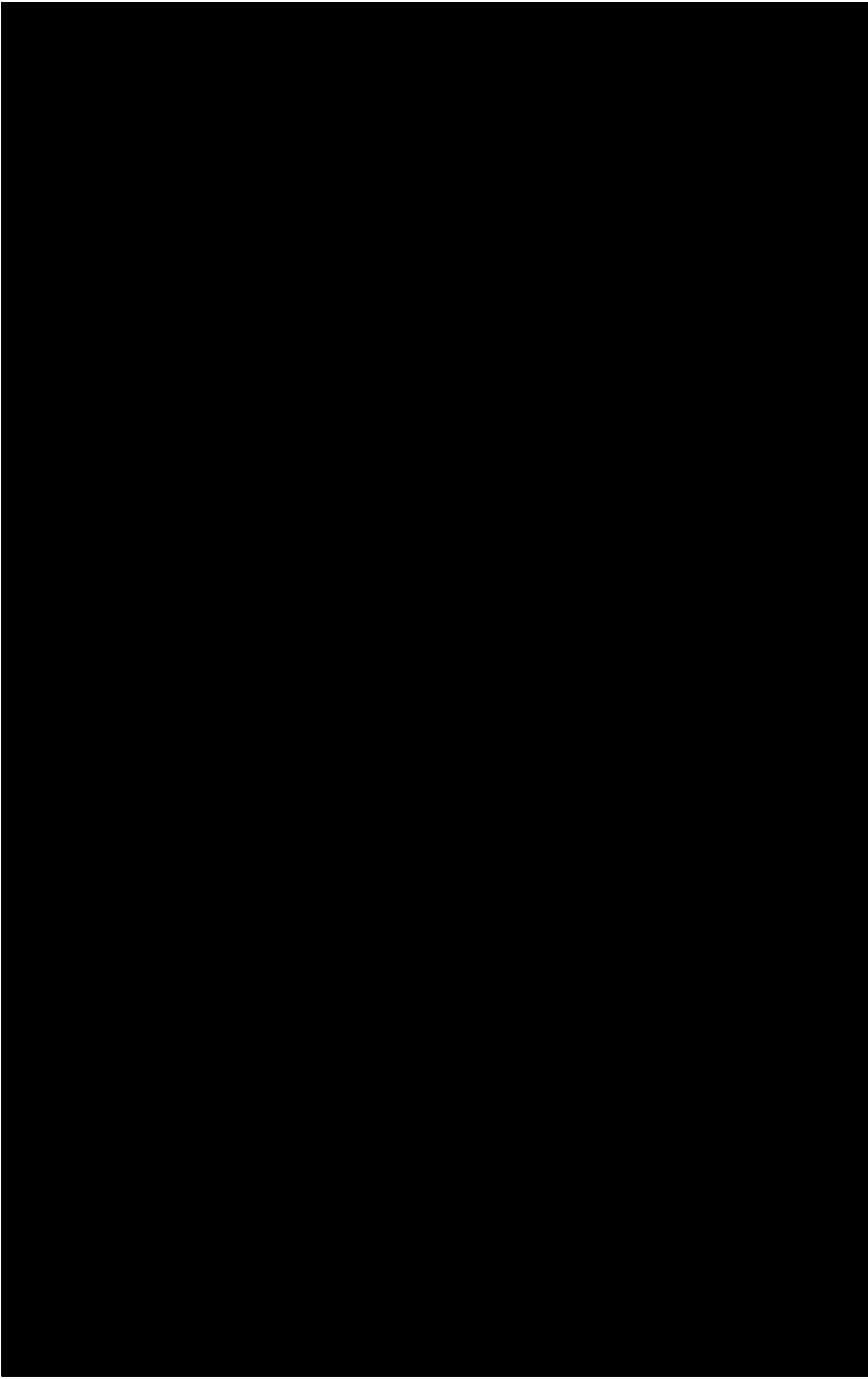


Fig. VI.3. Polizzello: general site plan (after De Miro 1988: 28, fig. 2).

to a possible outlet on which these raw materials may have exchanged for metals. But La Rosa (1988-89: 557) and Palermo (1996: 153) are correct in urging that, owing to the scarcity of evidence, both the exploitation of mineral resources and the Phoenician trading connection are still only tentative proposals accounting for the wealth of Sant'Angelo Muxaro.

Polizzello, the second type site of the culture, is located in the upper reaches of the Platani river-valley, some 30 km. as the crow flies north-east of Sant'Angelo Muxaro (fig. VI.1). The Montagna di Polizzello rises to a dominating height of 877 m. asl. and consists of two plateaux, conventionally referred to as "il piano della città antica" and "l'acropoli" (fig. VI.3). The modern place-name of Polizzello supposedly derives from the $\pi\acute{o}\lambda\iota\varsigma$ of Εἰζηλός entry in Stephanos of Byzantion (who actually describes it as a *phrourion*), but no traces of this postulated Greek site have been found in the vicinity (Palermo 1981: 103 n. 3; Mambella 1987: 13).¹⁵ Archaeological research at Polizzello has revealed human occupation extending, though not continuously, from the Early Bronze Age to Mediaeval times (Palermo 1981: 105-107). The protohistoric and archaic material is represented by tombs and some settlement evidence.

The tombs are situated all around the sides of the mountain, but are especially concentrated in the north-west, west, and east faces. The tombs consist of rock-cut chambers of rectangular and roundish shapes, sometimes preceded by a short *dromos*, and almost always containing multiple burials (Palermo 1981: 114; De Miro 1988: 35). Children were usually buried outside the chamber tombs in amphorae (De Miro 1988: 35).

¹⁵ The silence of the archaeological record suggests that Polizzello ceased to exist in the later sixth century, perhaps as a result of Akragantine encroachment; there are no signs of life in the fifth and fourth centuries (Palermo 1981: 146-147).

Three recently-discovered tombs (nos. 5, 24, and 25) have external structures, which De Miro (1988: 35) interprets as altars and, in the case of tombs 24 and 25, a sacrificial table (0.75 by 0.65 m.) and quadrangular room (3.7 m.) somehow connected with funerary ritual. The grave-goods are primarily of eighth- and seventh-century date, consisting in the main of painted and incised and impressed native pottery (belly-handled amphorae and oinochoai being quite common shapes) and bronze fibulae. Tomb 25 contained eight Egyptianising scarabs of seventh-century date and an Ionic B1 cup, as well as pottery imitating Corinthian and seemingly late geometric/early archaic Cypriot wares (De Miro 1988: 35, 38). Two clay models of huts with painted decoration were found in tomb 5 (De Miro 1988: 38).

The ascent to the settlement on the mountain's summit is most easily made on the east side, where there survives the mere outline of a fortification system (Palermo 1981: 108) (fig. VI.3). The main part of the ancient settlement is believed to have been located on the first plateau which one comes upon. Earlier excavations (in the 1920s) on this plateau failed to uncover any ancient remains; in recent years, however, numerous fragmentary roof tiles brought to the surface by deep ploughing are clear signs of some form of habitation (Palermo 1981: 108). No other architectural vestiges are visible on the surface. The second plateau, the so-called acropolis, is some 40 m. higher than the latter. Previous excavations here exposed a sacellum, which has since disappeared. The structure was oriented in approximately an east-west direction and measured 11.6 m. by 9.25 m. Little more can be said because the excavator's notes do not elaborate on details (Palermo 1981: 111).

De Miro's (1988) more recent explorations on the acropolis have helped to make

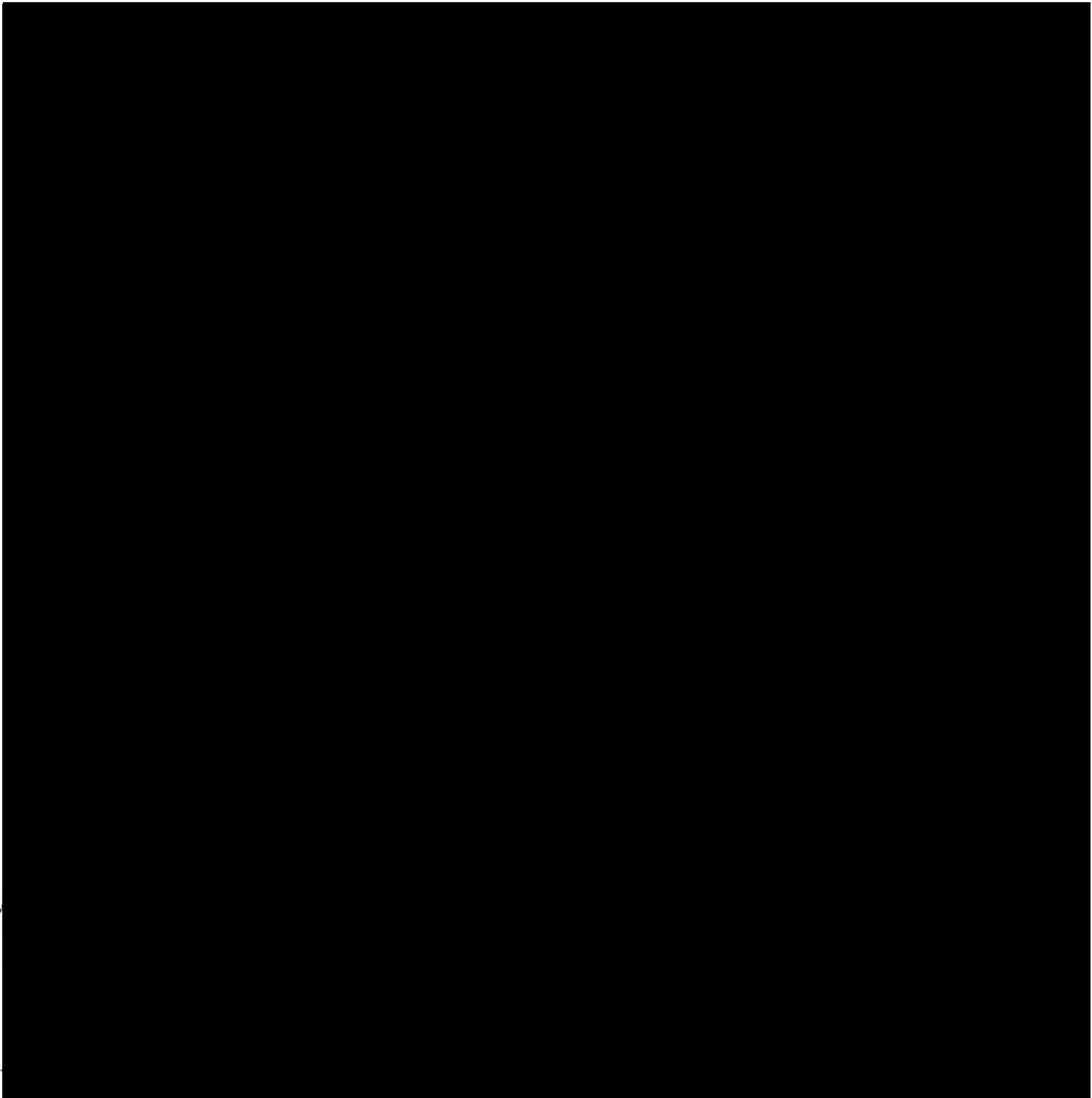


Fig. VI.4. Polizzello: plan of the acropolis excavations (after De Miro 1988: 30, fig. 3).

up for such a loss of evidence.¹⁶ Along the foot of the acropolis portions of a fortification wall were unearthed; a gate survives in the south-west part of this circuit, at precisely the most accessible point leading up to this second plateau (fig. VI.4). Four buildings, all enclosed by a "temenos" wall, were found on the inside of this fortification. A group of two, partially overlapping circular buildings, labelled A and B by the excavator, sits in the north-east corner of the acropolis (De Miro 1988: 29, 33). Building A measures 8 m. in diameter with walls about 1.5 m. in thickness, entered on the south through a space in the wall of 1.6 m. In the centre of this building is an altar surrounded by a paved surface. Building B is 10 m. in diameter, and its walls are 1 m. thick. Benches were discovered in the interior of both buildings. To the south-west of the latter group of structures are two more, which have been similarly labelled (buildings C and D) (De Miro 1988: 33, 35). Building C is semicircular and occupies a surface area of 116 m.²; inside it were discovered the remains of three benches and a small rectangular building (6 m. by 4.5 m.), in the middle of whose floor is a circular platform of baked clay. The entrance is a narrow, almost north-south running passage, which leads to the semicircular building proper. West of building C is building D which is circular in shape. Building D is 8 m. in diameter, with walls just over 1 m. in thickness; on the inside, along the north-east corner, is a curvilinear bench about 0.7 m. in length. The entrance is located in the southern part of the structure; in front of building D, though separated by a distance of almost 2 m., is a portico of trapezoidal shape, measuring 5 m. by 1.7 m. A religious function has been ascribed to this complex of buildings (called "capanne-sacelli") on the acropolis, presumably because of the sacred features and votive pits found in and around

¹⁶ De Miro (1988-89) is essentially the same version as the article cited in the text.

them and also because of the now lost sacellum discovered in 1926 (De Miro 1988: 29). The associated finds, dating from the eighth to sixth centuries, are virtually all of native production. Painted and incised pottery are among the material recovered; there is also some Greek pottery (a PC skyphos and Ionic A2 cups). More common, however, are the items made of bone (fibulae), clay (bull figurines, loom-weights), and metal (brooches, statuette of offrand holding a bowl) (De Miro 1988: 29, 33, 35). Burnt animal bones were also found.¹⁷

A bronze hoard found by chance in 1889 on the west slopes of the Polizzello mountain is the last of the known protohistoric/archaic evidence. The hoard is made up mainly of various types of axes (ten in number) as well as of fragments of spears and ingots of bronze (Bernabò Brea 1957: 190; Giardino 1987; S. Tusa 1992: 644). The hoard, divisible into two distinct chronological groups, seems to have been deposited around the mid-eighth century. The first group contains objects which date as far back in time as the tenth and ninth centuries; the second group, representing the majority, is of earlier eighth-century date. Axes of both these periods reveal stylistic influences with areas outside Sicily: the first shows affinities with the metalworking traditions of south Italy, particularly Apulia, Lucania, Calabria, and the second with these same regions as well as with central Italy, particularly Etruria and Latium.

We are badly informed as to the social and economic organisation of Polizzello. Gabrici (1925: 7-9) published three pots which depict two warriors with shields and a man on horseback wearing a hat (*cf.* Palermo 1981: 132-133, 137-139); this imagery may be

¹⁷ Although De Miro (1988: 41) admits that "È ancora prematuro allo stato attuale delle ricerche caratterizzare la società sicana di Polizzello", he rather rashly does not hesitate in describing the acropolis buildings as a pan-Sikan sanctuary: a view which the evidence at present cannot sustain.

evidence of an élite warrior element amongst the population of Polizzello (La Rosa 1989: 68, 90). The recent discovery in the east necropolis of adults buried outside chamber tombs (*e.g.*, no. 4) may also represent some form of social inequality (De Miro 1988: 35; S. Tusa 1992: 644). These suspected social differences have led S. Tusa (1992: 646, 648) to hypothesise the existence of a chiefdom. Tusa further hypothesises that the economic mainstay of this chiefdom was pastoralism, whose products could have been exchanged for metals. The first part of this hypothesis, which postulates a chiefdom, seems reasonable, for it is based on a pattern better attested elsewhere on the island. But the economic side rests solely on the appearance of a few bull figurines and images (the presence of the latter is sometimes exaggerated: see Wilson, forthcoming). Further work is needed to ascertain whether this socio-economic framework did indeed support the community that flourished at Polizzello between the eighth and sixth centuries.

The Sant'Angelo Muxaro-Polizzello culture is also represented at other western Sicilian sites, but the evidence is rather limited, and we are still far from saying anything meaningful about the pattern and organisation of settlement (La Rosa 1989: 41-42; S. Tusa 1992: 550, 650). To the east of the river Platani, some traces of this culture have been revealed in the area of later Greek Akragas, and further along the coast at Castellazzo di Palma Montechiaro. About 5 km. north-east of Akragas a circular hut cut into the rock was found in Favara's contrada Caltafaraci. In recent surface reconnaissances more sites have come to light further to the west, in the area between the rivers Platani and Belice (La Rosa 1988-89). Excavation has taken place at the hill-top settlement at Caltabellotta, and in the Belice river-valley corridor excavation of native sites has also occurred at Selinous itself, and inland at nearby Montagnoli and Castello della

Pietra.¹⁸ As we move northwards, we enter the Elymian area. The ancient sources mention three, possibly four cities as being specifically Elymian. Archaeology has yielded some material evidence of these and numerous other native sites in the Belice river-valley;¹⁹ however, the native world of this part of Sicily is still imperfectly known.²⁰

Of the Elymian cities appearing in the ancient sources, we may begin with Segesta.²¹ The site is located on Monte Barbaro, whose two peaks attain a maximum height of 415 and 431 m. asl (fig. VI.1). On the west slope of this hill a necropolis was discovered in the 1920s, but it was so completely destroyed before publication that we do not even know the shape of the tombs (La Rosa 1989: 47). On the opposite slope of the hill, thousands of fragments of pottery, both native and imported (Korinthian, Attic black-and red-figure, and black gloss), were found in Grotta Vanella (de la Genière & V. Tusa 1978; V. Tusa 1991: 24). The material dates between the eighth and fourth centuries; writing, employing the Greek alphabet, survives on approximately three hundred sherds. This writing consists often of no more than a letter or two, and most of the sherds on

¹⁸ All four of these sites will be fully discussed in chapters IX and X.

¹⁹ The Elymian cities found in ancient sources are Segesta, Eryx, Entella, and possibly Halikyai. Native sites revealed through archaeology include Monte Castellazzo di Poggioreale, Monte Polizzo, Monte Maranfusa, Monte Bonifato, Monte Iato, Monte d'Oro di Montelepre, and Marineo. Cf. Anello (1990: 62-64).

²⁰ Compare La Rosa (1989: 47): "Il settore nord-occidentale dell'isola...appare quasi del tutto privo di documentazione archeologica per il periodo protostorico." And Holloway (1991: 86): "The Elymnians [sic]...have left almost no archaeological record in the archaic age." On the Elymians there have been three recent conferences, two of them published (Nenci et al. 1990; Biondi et al. 1992; on the third, see Wilson, forthcoming), which have done much to redress this deficiency.

²¹ The ancient sources mentioning Segesta as Elymian: Thuc. vi.2.3; Strabo vi.1.3; Dion. Hal. i.52; Stephanos of Byzantium, s.v. 'Εγεστια (cf. also Manni 1981: 222-223). For an extensive review (similar to a *BTCGI* entry) of Segesta, see the contributions of various authors in *ASNP* 21 (1991) 765-994.

which it is preserved date to the first half of the fifth century.²² No structural remains were found associated with the Grotta Vanella deposit, and it is likely that the material fell in a landslip from the hill's summit. The remains of a sanctuary were discovered in contrada Mango on the south-east side of Monte Barbaro (V. Tusa 1991: 22-24). Excavations have uncovered a large rectangular precinct wall, measuring 83.4 m. by 47.8 m.; the south and west walls also act as retaining walls. The blocks of the precinct wall are of notable dimensions at 1.32 m. by 0.62 m. by 0.6 m. ; enclosed within this wall is a Doric temple and other related cultic buildings. The whole architectural complex, particularly the capital profiles, is dated on stylistic grounds to the sixth and fifth centuries. Investigations on Monte Barbaro's summit revealed meagre traces of archaic walls (de la Genière 1988), whose presence strongly suggests that the settlement once existed here.

The remainder of what is known of the archaeology of Segesta belongs to later times; this includes the well-preserved Doric temple. The temple deserves a moment's more attention, since it stands as an important testimony in the history of Segesta.

Of late fifth-century date, the Doric temple is incomplete (on the date, see Mertens 1984: 203-205). The structure measures 23.12 m. by 58.035 m. at the stylobate; the peristyle is made up of six columns on the short sides and fourteen on the longer sides (Dinsmoor 1950: 339; Mertens 1984) (pl. 16). The unfluted columns, rising to a height of 9.36 m. (lower column diameter: 1.95 m.), consist each of twelve drums; the entablature, comprising the usual elements, stands to a total height of 3.585 m. above the capitals. Today there are no visible traces of a cella block within the peristyle, and in the past a debate, now fully resolved, has raged as to whether such a structure did in fact

²² For these inscribed sherds, see Agostiniani (1977) and Biondi (1992). The Grotta Vanella material furnishes virtually all of the samples of writing known from Segesta. Cf. also La Rosa (1989: 49).

exist.²³ That a cella block was originally intended has been confirmed through excavation, which revealed the cuttings meant to receive it (Mertens 1984: 9-14).

Approximately 25 km. as the crow flies north-west of Segesta is another Elymian city called Eryx, resting on the top of a mountain 751 m. high (fig. VI.1).²⁴ Modern Erice preserves perfectly the mediaeval town plan underneath which lies rather inaccessibly the ancient site, of which little is consequently known of all periods of classical antiquity (V. Tusa & De Miro 1983: 73-75; Coarelli & Torelli 1984: 54-58; *BTCGI* vii.349-378). Of archaic date are some sporadic finds (sixth/fifth centuries) of the celebrated temple of Aphrodite found beneath the Norman castle in the north-east part of town, as well as the first phase of the city wall, datable to the early sixth century. The lowest courses of the city wall were constructed in megalithic masonry, and the curtain itself is some 2-3 m. thick; a stretch of the city wall runs for about 800 m. between "porta Trapani" and "porta Spada", with towers placed at every 25 m.

Entella has recently received much attention, thanks to the efforts of the Pisa team (Nenci 1993a). The ancient site, approximately 40 km. south-east of Segesta, is centred around a 557 m. high hill, steep on all sides except the north one (fig. VI.1). Very little is known of archaic Entella: two tombs (Falsone, Di Noto & Becker 1993) and possibly traces of a sixth-century fortification (Nenci 1993b: 32).

Ancient sources do not state the "ethnicity" of Halikyai, though it is commonly labelled Elymian (*e.g.*, Hans 1983: 15; Anello 1990: 62; *BTCGI* iii.169). On the basis of the entry in Stephanos of Byzantium (*s.v.*, Ἀλικύαι), who says that the ancient city was

²³ The controversy is summarised by Burford (1961: 87-88).

²⁴ Eryx as Elymian city in the ancient sources: Thuc. vi.2.3; Strabo vi.1.3; Dion. Hal. i.52. Cf. also Manni (1981: 173-174).

located between Entella and Lilybaion (modern Marsala), Halykiai is often equated with modern Salemi, 15 km. as the crow flies from Segesta, although this suggestion has not been confirmed on the ground (Manni 1981: 177-178). Halykiai has also been placed at Monte Castellazzo di Poggioreale (to be discussed presently), at which several seasons of excavation have taken place, yet which have so far failed to produce anything which might substantiate the proposed identification (Anello 1990: 62 n. 39).

No further cities are singled out by the ancient sources as Elymian, and in the case of the settlements that follow it is archaeological explorations that have uncovered traces of native material culture.

One such settlement is the just mentioned hill-top site (615 m. asl) of Monte Castellazzo di Poggioreale (cited hereafter as Poggioreale), situated in the mid-valley of the Belice river (*cf. BTCGI* x.307-312) (fig. VI.1). The summit occupies a surface area of 12 hectares (Falsone & Leonard 1978: 38). Two strata (B and C), of the seven distinguished in the settlement (Falsone 1990: 305), are of the most relevance here. Stratum B (700-550 BC) has yet to yield structural remains; the finds chiefly consist of pottery (Falsone 1990: 309-312). Stratum C has two main features. The first is a part of the city wall with the remains of a gate, perhaps the principal one, also brought to light (Falsone 1990: 306-308). The remains of a paved road surface are flanked on both sides of this wall, built of isodomic blocks. The wall and gate, originally constructed in the mid-sixth century, were destroyed around 480, apparently in connection with events of a violent nature (Falsone 1990: 307-308). The other feature of stratum C is a rectangular edifice (Falsone 1990: 306). Few details are known of this structure, but it seems to have consisted of several rooms surrounding a courtyard, with two oval platforms located just outside the structure's south side. This building, like the city wall, was also constructed

in the mid-sixth century. The use of writing at Poggioreale is attested, in the first half of the fifth century at least, by a graffito on the neck of an amphora (Calascibetta 1990; Falsone 1990: 311).

Some 12 km. north-east of the latter site is another located on the summit of Monte Maranfusa (fig. VI.1). The hill is at its highest point 487 m. asl, with steep sides on the south and west and gentler ones on the north and east; the hill-top itself occupies a surface area of 58 hectares, part of which has been cut away by an active quarry (Spatafora & Calascibetta 1986: 13; *BTCGI* x.407-409). Surface and excavated finds indicate that the settlement existed between the eighth to fourth centuries (Spatafora & Calascibetta 1986: 13; Spatafora & Fresina 1993: 7-12). The limited excavations have so far revealed two portions of the settlement in the area labelled sector A, in the south-west part of the plateau (Spatafora & Fresina 1993: 7-10). The first group consists of three rooms, all almost quadrangular in shape, standing side-by-side in a north-south orientation). There is no communication between the rooms, the second of which, room B, opens on to a paved court with round hearth. The other group of rooms, five in total, has been less thoroughly explored; only rooms E and F have been excavated to bedrock. Room E, identified as a storage area of sorts, is of rectangular shape (dimensions: 3.5 m. by 6.5 m.); room F is quadrangular at 3.5 m. by 3.5 m. Like the first group of rooms, this one also has no communication between the adjoining rooms. Greek pottery found in association with the native wares allows the usage of both groups of rooms to be placed during the mid-sixth to early fifth centuries.

Almost due north of Monte Maranfusa, at a distance of slightly under 14 km. as the crow flies, is Monte Iato (*BTCGI* x.368-375) (fig. VI.1). The mountain rises to a height of 852 m. asl, and thus commands a dominant position over the surrounding

countryside (pl. 17). Since 1971 a team from the University of Zurich has conducted extensive excavations here on the summit of the mountain (50 hectares in size), revealing continuous habitation extending from protohistoric to Mediaeval times (Isler 1991).

Evidence of archaic occupation derives from deposits that are rare and often disturbed by later building, though indicative enough to place the beginning of the settlement in the second half of the eighth century (Isler 1990). The foundations of some huts have come to light from the area south of the later hellenistic *agora* and temple of Aphrodite (Isler 1990: 280-281). The temple of Aphrodite, constructed in roughly the mid-sixth century, is the oldest known public building at Monte Iato (Isler 1984: 11-116; 1991: 52-56; cf. Romeo 1989: 44, no. 69). The temple, oriented in east-west fashion, measures 17.8 m. long by 7.2 m. wide, and its plan is tripartite, with *adyton*, *cella*, and *pronaos* (two columns divide the latter two into separate units). Traces of an altar built of large blocks were found outside the temple's entrance. The temple received some minor structural renovations in the fourth century. The letters ΑΦΡ were scratched on a cup found amongst the temple's few surviving votives, and on this basis it has been assumed that the temple was dedicated to Aphrodite.

The necropolis of Monte d'Oro near Montelepre (in *località* Manico di Quarara), about 14 km. north-north-west of Monte Iato, has furnished the best information of native culture in this region (fig. VI.1).²⁵ A settlement is presumed to have existed in the vicinity of this necropolis, but no traces of it have been discovered. The tombs indicate active use from the mid-sixth century to the end of the fifth; the majority of the tombs, preceded by short *dromoi*, are dug into the rock. The necropolis also contained some *enchytrismos*

²⁵ C.A. Di Stefano and Mannino (1984: 83); C.A. Di Stefano (1990: 248-25); C. Greco (1993); *BTCGI* x.334-335.

burials, the remains of the dead being deposited in large *pithoi* with painted geometric designs. Among the finds recovered from the tombs are three Attic vases with graffiti in Greek letters on the feet of all of them.²⁶ The grave-goods consist in general of pottery (principally native, though with some Greek as well) and objects in bronze (fibulae and strigils mostly).

Around Palermo several more native sites have been noted (C.A. Di Stefano 1990: esp. fig. 1 for distribution). Only preliminary notices of these sites have been given; their individual histories still await discovery.

Little can be said for certain about the socio-political organisation of the native settlements in the Belice river-valley corridor. Some insights may be provided by the size and fairly even spacing of the settlements, which suggest that they were major centres. This observation may receive confirmation from the Monreale Survey: Monte Maranfusa was the only site discovered in the 72 km.² area (Johns 1992: 411). The use of writing at many of the sites could also be taken to support the idea of their importance as central places. It seems legitimate to conclude, therefore, that the settlements were located with a view to controlling a rather large territory. The population of archaic Monte Iato has been estimated at 1,400-3,250 inhabitants on 50 hectares (Battaglia & Alliata 1991: 26), but, as so little is actually known of the settlement then, this estimate constitutes no more than a working hypothesis. The estimate could at the very least theoretically suggest that sizeable native communities of a certain level of complexity may have once existed in this part of Sicily. By analogy with other contemporary native Sicilian societies, part of their

²⁶ The first two of these appear in Agostiniani (1977: 75 no. 283, 86 no. 319) and the third in C.A. Di Stefano (1990: 250).

socio-political development may have likewise consisted of chiefdoms.²⁷

With regard to the economy, the excavations at Poggioreale and Monte Maranfusa have supplied unique glimpses of areas used for grain processing (Falsone & Leonard 1979: 66; 1980-81: 944; Spatafora & Fresina 1993: 9). Petrographic analysis of the sixth-century hand-querns from Poggioreale revealed that the stone was imported from Tyrrhenian central Italy and the Aeolian islands or Sardinia (Ferla *et al.* 1984; Spatafora 1993). Johns (1992: 417), furthermore, has suggested that much of the natural forest may have already been cleared, to make way for farming, from the area of the Monreale Survey in the Bronze Age; the excavations at Poggioreale and Monte Maranfusa seem to supply evidence of this form of agricultural exploitation. So much for the evidence, and all we can really do is follow a recent view which suggests that a mixed economy, though unproven, is an appropriate feature to ascribe to south Italy and Sicilian native cultures (Malone *et al.* 1994: 182).

In closing, it is obvious from the foregoing discussion that considerably more research needs to be done on the native world of western Sicily; there are numerous matters that have yet to be tackled, and others for which answers are at best still only possibilities. Even in view of these deficiencies, present evidence allows some summary remarks to be made about the nature and spatial distribution of native western Sicily.

The landscape was rather densely settled. Sites existed in coastal areas (*e.g.*, Selinous and Akragas) and on hill-top locations in the interior. Traces of fortifications have been found at some sites whose settlements have received exploration in more than passing fashion (*e.g.*, Polizzello, Poggioreale, and possibly Entella); these fortifications

²⁷ In more general terms, Battaglia and Alliata (1991: 25-26) make this same suggestion for the whole of native Sicily.

point to some degree of military sophistication. These societies had also become complex in socio-political terms. Polizzello may be the only native site in western Sicily so far to have attested archaeologically (in the necropoleis) rich and poor elements living side-by-side. Also at Polizzello, the depiction of warriors and of a horseman on local pots may give us some idea of some of the ideals and pursuits of the upper classes. Elsewhere disparities in wealth, and presumably in social status, are clear at Sant'Angelo Muxaro. Further work will almost certainly continue to reveal that these societies, perhaps for a time ruled by chiefdoms, contained a full social spectrum. Contacts with the outside world doubtless contributed to these social differences. The range of contacts includes other Sicilian culture areas (native, Phoenician, and Greek), as well as with Italy and its islands and Malta. These contacts provided certain individuals within the local communities the opportunity to generate wealth and to build up status. The sixth century witnesses the onset of hellenising tendencies amongst native aristocrats, with the emergence of such attributes as Greek-style monuments (at, *e.g.*, Segesta and Monte Iato) and the use of the Greek alphabet in writing.²⁸

As in eastern Sicily, therefore, the native world of the west also shows all the signs of being a complex and dynamic world, meeting and adapting to the new realities that began to transform the island in archaic times.

The Phoenicians in Sicily

Phoenician settlements in the Mediterranean may be likened to links in a chain, which stretched from Cyprus in the east to beyond the Straits of Gibraltar in the west

²⁸ Domínguez (1989: vol. ii) pursues the question of hellenisation in archaic western Sicily in great detail.

(compare Aubet 1993: 135). Sicily was at the centre of this vast network, and the route to the western Mediterranean had, of necessity, to sail past the island. Thus Sicily became a natural and key link in the Phoenician overseas system of settlements. In this section we look at Phoenician involvement in archaic Sicily, particularly the establishment and nature of the settlements.

Pre-colonial contacts with Sicily

Permanent Phoenician settlement in Sicily is sometimes thought to have been preceded by pre-colonial contacts. The case for such contacts has sometimes been brought into connection with the question of Phoenician activity in the western Mediterranean in general. Ancient sources place the foundations of Utica, Lixus, and Gades between the end of the twelfth century and the beginning of the eleventh centuries.²⁹ And on Sardinia two inscribed monuments, the so-called "Nora Stone" and "Nora Fragment" may date, on palaeographic grounds alone, to as far back in time as the mid-tenth century (Negbi 1992: 609-611; Aubet 1993: 179-181).³⁰ But the earliest secure archaeological evidence for Phoenicians from these areas belongs to the eighth century (Aubet 1993: 172-184). Nevertheless, some scholars have taken these written sources at face value, and claimed Phoenician pre-colonial contacts in Sicily and elsewhere.³¹ Any such connection is tenuous, however, and it is doubtless wiser to begin discussion with the written and archaeological evidence for early Phoenician involvement in Sicily.

A passage in Thucydides (vi.2.6) forms the starting-point of the argument:

²⁹ For full discussion, see Gras *et al.* (1989: 54-56); Aubet (1993: 135-136, 168-170); Lancel (1995: 1-2, 15-19).

³⁰ There is no discussion of Sicily in Negbi (1992).

³¹ *E.g.*, Moscati (1983: 5); and more cautiously Sherratt and Sherratt (1993: 365). Aubet (1993: 172) labels these attempts the so-called "bridge-hypothesis."

ᾧκουν δὲ καὶ Φοίνικες περὶ πᾶσαν μὲν τὴν
 Σικελίαν ἄκρας τε ἐπὶ τῇ θαλάσῃ
 ἀπολαβόντες καὶ τὰ ἐπικείμενα νησίδια
 ἐμπορίας ἔνεκεν τῆς πρὸς τοὺς Σικελούς·
 ἐπειδὴ δὲ οἱ Ἕλληνες πολλοὶ κατὰ θάλασσαν
 ἐπεσέπλεον, ἐκλιπόντες τὰ πλείω Μοτύην καὶ
 Σολόεντα καὶ Πάνορμον ἐγγὺς Ἑλύμων
 ξυνοικήσαντες ἐνέμοντο

The Phoenicians also dwelt around the whole of Sicily, occupying the promontories on the sea and the islands lying opposite, for trade with the Sikels. But when the Greeks arrived in large numbers by sea, they gave up what was too much and settled at Motya, Soloeis, and Panormos close to the Elymians with whom they co-habited.

There are points which can and cannot be inferred from this passage. On the one hand, it seems reasonable to suppose that, chronologically speaking, the context referred to is the eighth century: the large-scale arrival of the Greeks could indicate their colonisation of the island beginning in the middle of that century. On the other hand, it is surely not permissible to build fanciful reconstructions concerning the nature of the Phoenician settlements or the relationship, peaceful or otherwise in tenor, between the Greeks and Phoenicians at this early date (Moscatti 1985: 133). We may only conclude that the impression given by the passage is that the Phoenicians appear to have preceded the Greeks in Sicily, though by how long cannot be answered by Thucydides alone, and that the Phoenicians had involvement in the island before taking up permanent residence.³²

Despite attempts, archaeology has not confirmed Thucydides (Ciasca 1988-89: 76; Aubet 1993: 181-184). For instance, the well-known "Smiting God" bronze statuette (the

³² Growing archaeological evidence now suggests that there may have been Phoenician enclaves in the Greek cities of eastern Sicily in early archaic times (Ciasca 1988-89: 77-79; see also ch. V above). Greek and Phoenician spheres overlapped, and any compartment of Sicily which one might read into Thucydides must be treated with caution.

so-called Sciacca Melqart) found in fishing nets off the waters of south-western Sicily (Chiappisi 1961; *cf.* Gargiullo & Okely 1993: 37-38) often forms the point of departure in discussions of the archaeological evidence. Two reasons prevent the statuette from being used as evidence for Phoenician pre-colonial contact with Sicily. First, the find context is completely unknown, making it unwise to build on.³³ Second, there are enormous discrepancies in dates assigned to the statuette; they have ranged from the fourteenth/thirteen centuries down to the eighth century.³⁴ Uncertainty over the context and date of the statuette eliminate, therefore, the object's utility in establishing Phoenician pre-colonial contacts in Sicily.

The same conclusion holds for the evidence adduced by Bernabò Brea (1964-65: 12-23; 1990: 58-63), who has seen Phoenician influences in some native Sicilian (Cassibile) artefacts (such as in the fibulae and pottery). In this case the main objection, besides the criticisms sometimes levelled at the influences themselves,³⁵ is of a chronological nature. The Cassibile phase of the Pantalica cultural sequence is conventionally dated to 1000-850, but this range now needs to be widened a century or more in light of fresh evidence (see ch. I). Thus, even if the postulated Phoenician influences were as strong as Bernabò Brea believes, they could not safely be described as pre-colonial.

Phoenician pre-colonial activity has also been suggested at Thapsos III, but there

³³ Consequently, "...questa [sc. statuetta] non si può considerare una testimonianza archeologica assolutamente valida..." (V. Tusa 1971a: 50).

³⁴ For the early dates, see discussion in Purpura (1981: 87) and S. Tusa (1992: 607); for the late date: Falsone (1988: 232; 1993) and Aubet (1993: 174-176); for a date in between: Bisi (1977-78).

³⁵ For example, Leighton (1981) has shown to be false the apparent Phoenician influences Bernabò Brea saw in the strainer-spouted jugs.

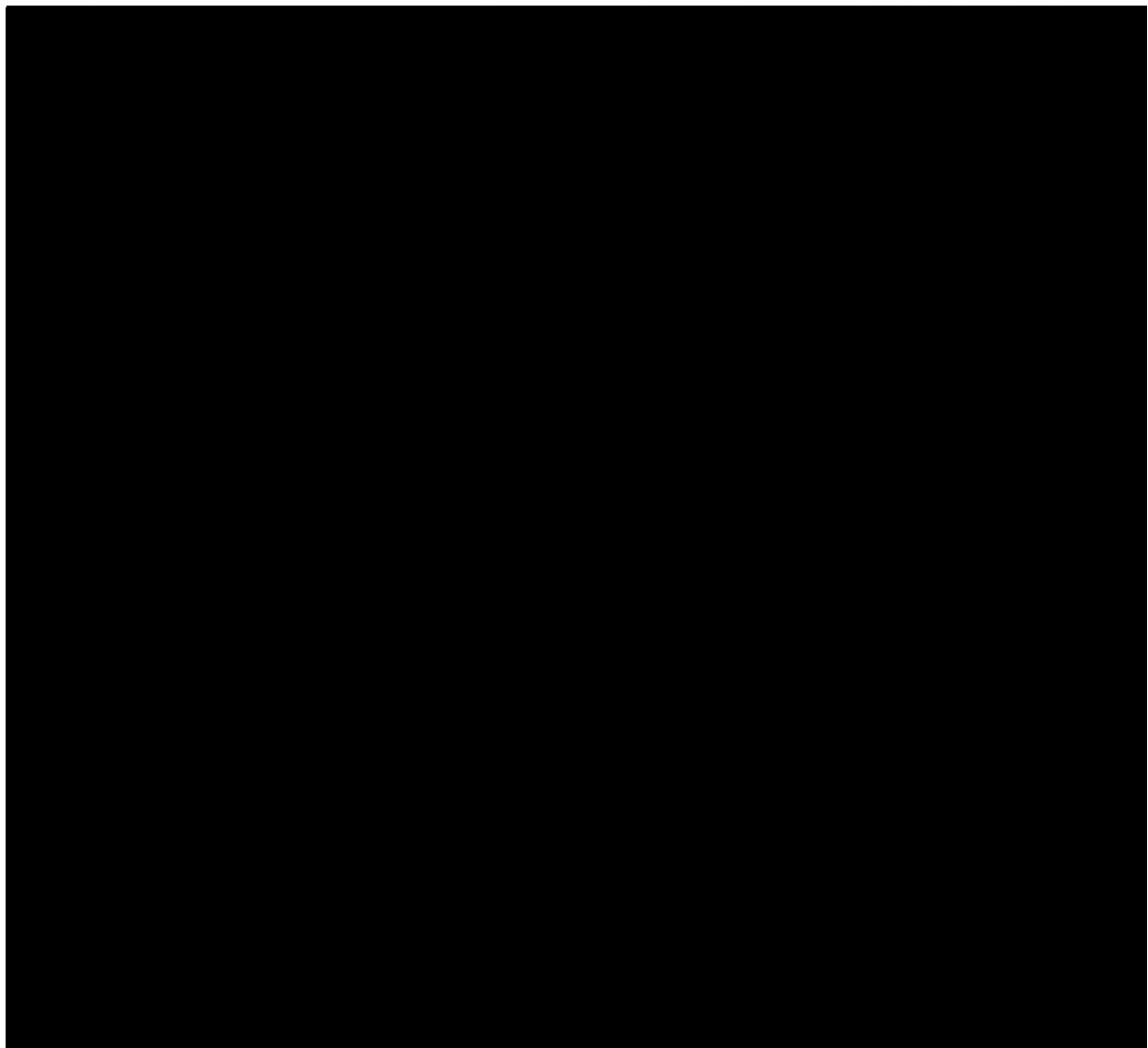


Fig. VI.5. Motya: general site plan (after Aubet 1993: 201, fig. 39).

is little evidence to support that claim (see ch. I).

The foregoing archaeological evidence is fraught with too many problems or uncertainties to allow firm conclusions. However, that is not the same as saying that there were no Phoenician pre-colonial contacts with Sicily, just that their existence cannot be supported from the archaeological evidence presently available. As argued earlier (in ch. I), permanent settlement presupposes some form of prior knowledge. Thucydides seems to credit the Phoenicians with such knowledge in the passage discussed above, and we may thus take this evidence as being the pre-colonial contacts sought in the archaeological record.

The Phoenician Cities of North-west Sicily

The earliest indications of permanent Phoenician settlement in Sicily come from Motya, the first of the three cities mentioned by Thucydides. Motya is a small, roundish island, *ca.* 45 hectares in size, located some 8 km. north-east of Marsala (*BTCGI* xii.77-129) (fig. VI.5). The island sits almost in the middle of a sheltered bay. Here the Phoenicians established themselves in the late eighth century; their presence is above all attested by a group of sixteen tombs found just inside the later city wall (V. Tusa in *Mozia*, vii.34-55), as well as, more tentatively, by the archaic masonry style, comparable to ninth-century examples at Tyre and elsewhere in the east, of certain stone pillars (Isserlin 1982: 114-115), and by a handful of eighth-century sherds discovered in the area of the later north and south gates (Isserlin *et al.* 1974: 53, 73).

In the seventh century the settlement developed considerably, to the point where Motya can henceforth be described as a full town, as opposed to the trading post status it is believed to have had beforehand (Isserlin 1982: 116). The remains of possibly a warehouse were discovered near the later south gate (Isserlin *et al.* 1974: 91; Isserlin

1982: 115-116; Ciasca *et al.* 1989: 56). On the north coast the first levels of the *tophet* are dated to the beginning of the seventh century, though they may even be earlier (Ciasca *et al.* 1989: 44) (pl. 18). The *tophet*'s first phase of use lasts until the mid-sixth century; the urns cover an enclosed area of only 440-450 m.² (in the central area of the later complex) (Ciasca *et al.* 1989: 45-46). The so-called "Cappiddazzu" sanctuary appeared in the second half of the seventh century, consisting at first of walls and a well of small unworked stones (Ciasca *et al.* 1989: 32).

In the mid-sixth century the city wall was built (Ciasca *et al.* 1989: 17-22).³⁶ It was constructed all around the island, initially comprising a circuit about 1 m. thick, with two-roomed rectangular towers placed at regular intervals of 20-21 m. Possibly four gates (two at least survive) permitted entry. The fortification cut the necropolis, now partly transferred to Birgi on the mainland, access to which was by means of a causeway (Whitaker 1921: 231-245; Ciasca *et al.* 1989: 25-27, 43) (fig. VI.5). It appears increasingly likely that there was a settlement of some kind in the environs of the Birgi necropolis (Griffo Alabiso 1991: 79). The Cappiddazzu sanctuary took on a monumental appearance around the same time. What remains today is a three-roomed building, measuring 27.4 m. by 35.4 m., oriented in a north-west/south-east manner, and surrounded by a precinct wall (Ciasca *et al.* 1989: 30-32). The enlargement of the *tophet* (doubling its previous size) is also a mid-sixth century innovation (Ciasca *et al.* 1989: 46). A small rectangular temple, in a bad state of preservation, was constructed west of the *tophet*. Two other little temples came into being outside the north gate sometime in the

³⁶ An earlier seventh-century start may have been made on the city wall, as argued by V. Tusa (*Mozia*, vii.79-81), but Isserlin (1982: 116-117) disagrees, viewing such a project as out of the financial and technical grasp (*viz.*, the rubble walls of the Cappiddazzu sanctuary) of Motya at the time.

sixth century; they are also poorly preserved (Isserlin *et al.* 1974: 69-73; Ciasca *et al.* 1989: 23-25). Architectural fragments of sixth-century date, re-used in later building, indicate the existence of other monuments as well (Isserlin 1982: 117).

Two industrial zones are also known. One of these zones, labelled "K and "K est", is situated north of the Cappiddazzu sanctuary. In the northernmost part of "K" is a rectangular building of two rooms, in one of which a kiln and well were found (Ciasca *et al.* 1989: 34). A second, larger (omega-shaped) kiln was discovered to the south-east of this building;³⁷ a large stone basin, evidently for the working of clay, was also found nearby (Ciasca *et al.* 1989: 35). In area "K est" much the same sort of finds came to light, that is, a well cut into the rock (with clay tubing to collect rainwater), a stucco-lined tub used for working clay, and a partially explored building (Ciasca *et al.* 1989: 35-37). The other industrial area is located south of the now unused archaic necropolis.³⁸ Dyeing and possibly tanning were conducted here (Ciasca *et al.* 1989: 39-40). These industries occupied a work space of little more than 500 m.² (23.5 m. by 21.5 m.), enclosed by walls built of small stones (a portion of the east wall is of mud-brick). On the inside of these walls, twenty clay-lined pits were cut to a depth of about 2 m.; two wells were also found nearby. Large quantities of mollusc (particularly murex) shells were uncovered throughout the area. Two large kilns were excavated in the southernmost sector of the complex; parallels from elsewhere in the Phoenician world suggest that they were used for tanning purposes. Two more pottery kilns were also found hereabouts.

Near Motya's south gate is the *cothon*, or inner harbour (Isserlin 1974; Ciasca *et*

³⁷ For the kiln type, of eastern derivation, see more fully Falsone (1981: 26-58).

³⁸ This second industrial zone was originally interpreted as the "luogo di arsione" of the *tophet*, where the actual sacrifices were made.

al. 1989: 59-61) (fig. VI.5). This inner harbour, a roughly rectangular basin (35.5 m. by 51 m.), may have been built at the end of the sixth century (Isserlin 1974: 191); its walls were constructed of fine ashlar masonry. The basin's floor gradually slopes, from north to south, to a difference in height of 1 m. A channel with stepped sides connects the basin with the sea; two triangular buttresses and a longitudinal groove helped to position incoming vessels (Isserlin 1974: 190). No evidence of a lock gate, to control the water-level of the basin, has ever been found (Isserlin 1974: 191). The *cothon*'s exact function is difficult to ascertain due to a lack of evidence; it may have been used for careening and unloading ships. Comparative evidence is needed to clear the impasse in interpretation (so Isserlin 1974: 194).

In the early fifth century Motya received its town plan (Isserlin *et al.* 1974: 33-36; Ciasca *et al.* 1989: 15, 17). The central part of the island was laid out in long arteries running in a north-east/south-west direction, which meet at right angles to form a grid. The buildings closest to the shore were arranged differently, in accordance with the coastline. A third artery, ringing the entire island, acted in a mediatory capacity by joining the outer and inner systems. Generally, little new building seems to have occurred. The Cappiddazzu sanctuary, the *tophet*, and the city wall were renovated (Isserlin 1982: 117-118).

The very limited domestic settlement evidence, especially that found in approximately the centre of the island, is largely of fourth-century date, but such habitation areas are usually preceded by traces of earlier occupation (Ciasca *et al.* 1989: 48-58). As so little is known of Motya's domestic settlement, the population estimate of 15,800 offered by Isserlin (1982: 119-120) should be regarded as more tentative than proposed. In any case, Motya seems to have had all the features of a substantial city.

The two remaining Phoenician cities in Sicily, Solous and Panormos, are not as informative as Motya (fig. VI.1). The site of Panormos, today Palermo (*BTCGI* xiii.205-241), has been inhabited right up to the present day (Acquaro 1988: 11-14), thus rendering archaeological investigations difficult and haphazard.³⁹ Nevertheless the topographical features of the Phoenician city are in the main known. The inhabited area lay within the four districts of modern central Palermo, that is, the area (oriented in a north-east and south-west direction) hemmed in by the sea, Piazza Indipendenza, the Kemonia and Papireto watercourses (Tamburello 1983; V. Tusa 1988: 611). The city wall may have followed Corso Alberto Amedeo, Via Candelai, Via Schioppettieri, and Vie del Fondaco and del Bastione (Tamburello 1983: 271). This circuit seems to have had four gates, located at the four main point of the compass (Tamburello 1983: 271). The city plan consisted of a north-south running longitudinal road (basically today's Corso Vittorio Emanuele), with numerous transverse roads, some suspected still to follow modern ones (Tamburello 1983: 273). No archaic buildings are known (Tamburello 1983: 273). The necropolis accompanying the settlement is to be found outside the city wall to the south-west (Tamburello 1986: 994). Hundreds of burials are contained therein, the oldest of which are dated to the mid-seventh century (Tamburello 1986: 996, 1009). Tamburello (1977: 34-35) takes these oldest tombs as being the date at which Panormos was set up, seeing its foundation, alongside Ibiza in 654 (Diod. v.16.2-3; cf. Aubet 1993: 272-273), as part of Carthage's overseas expansion. However, we cannot be sure that these are the tombs of Panormos' first-generation colonists (compare, more generally, Gras *et al.* 1989: 58), and it is possible that, like Motya, Panormos was also established

³⁹ For recent work, see C.A. Di Stefano *et al.* (1993); cf. Wilson (forthcoming).

in the eighth century.

Even less is known about Solous (or Soloeis). The Solous that can be visited today is the mid-fourth century replacement of the archaic city destroyed by Dionysios I in 397/6.⁴⁰ The discovery of numerous archaic tombs near the necropolis of the later city has fuelled suspicions that the earlier one, perhaps founded in the eighth century as well, was located somewhere in the vicinity (Tamburello 1970; V. Tusa 1971b; Villa 1993: 216-217). Yet that suspicion awaits confirmation.

Whether or not territories should be attached to these cities depends very much on the view taken in a larger debate: were territories a common feature of Phoenician settlements overseas in archaic times?⁴¹ At Sulcis in Sardinia, for instance, archaeological investigations have uncovered a network of fortified outposts, dating from the seventh century, aimed at controlling a territory rich in silver and lead (Aubert 1993: 203-207). But for Sicily we have nothing similar. Tamburello (1992: 595-597) sees this silence as significant, though I would urge caution because there is still widespread lack of interest in Phoenician/Punic rural archaeology (Isserlin 1983; Lancel 1995: 280), and in consequence it is much too soon to pass judgement on the archaeological record. Indirect evidence from the Phoenician homeland may steer the answer to the above question in the affirmative direction. For a growing body of evidence strongly suggests that the renown of the Phoenicians as being *solely* traders needs to be deflated somewhat in discussions

⁴⁰ On the destruction: Diodoros xiv.48.4; 78.7. For overviews, see V. Tusa and De Miro (1983: 56-59); Coarelli and Torelli (1984: 31-44); Acquaro (1988: 15-18).

⁴¹ This question is not so much at issue with later periods, where evidence for territories exists: for Sicily in particular, Diodoros (xiv.48.5) says that in 397/6 Dionysios I ravaged the *khorai* of Solous and Panormos, in which trees and crops were planted. In 454 Lilybaion may have been involved in a territorial dispute (Diod. xi.86.2) (see Whittaker 1974: 65-66, and ch. X below).

of the causes of their overseas expansion, with territorial ambitions filling in the resultant vacuum (Wagner & Alvar 1989; Aubet 1993: ch. 3). If true, Phoenician expansion could in some ways resemble Greek expansion with which it is often contrasted in a misleading trade versus agriculture dichotomy, rightly criticised by Whittaker (1974: esp. 78) and Aubet (1993: 56). That in the archaic period the Phoenicians may also have had territorial ambitions must be seriously entertained, therefore, instead of narrowly defining their intentions solely in trading terms. However, it is up to future generations of archaeologists to supply that conjectured evidence for Sicily and elsewhere.

The question of territories is also connected with the reasons for Phoenician settlement in Sicily. Several factors need to be envisaged (compare Aubet 1993: 51). As just seen, one of the reasons may have been to provide some Phoenicians with agricultural land, in the face of growing territorial constriction at home. The more commonly cited reason, perhaps the main one, is bound up with the acquisition of raw materials (Aubet 1993: 64-76; Sherratt & Sherratt 1993). As Phoenicia's territory and independent status gradually eroded on the home front, new resources were sought overseas, and the only outlet for such expansion was westwards. This process reached a peak in the eighth century, when Assyria, now master of Phoenicia, demanded more raw materials, most notably metals.⁴² Thus we find a wave of Phoenician activity in the west during this same time. Assyria, instead of altogether destroying Phoenicia, let the Phoenicians, with their maritime and trade experience, be the suppliers of its raw material needs. In this way the Phoenicians developed their intricate and highly organised systems of overseas settlements, and Sicily, being the most central and largest island in the western

⁴² Excavations at Motya have brought to light evidence of the processing and manufacturing which would have formed part of this economic activity (see above).

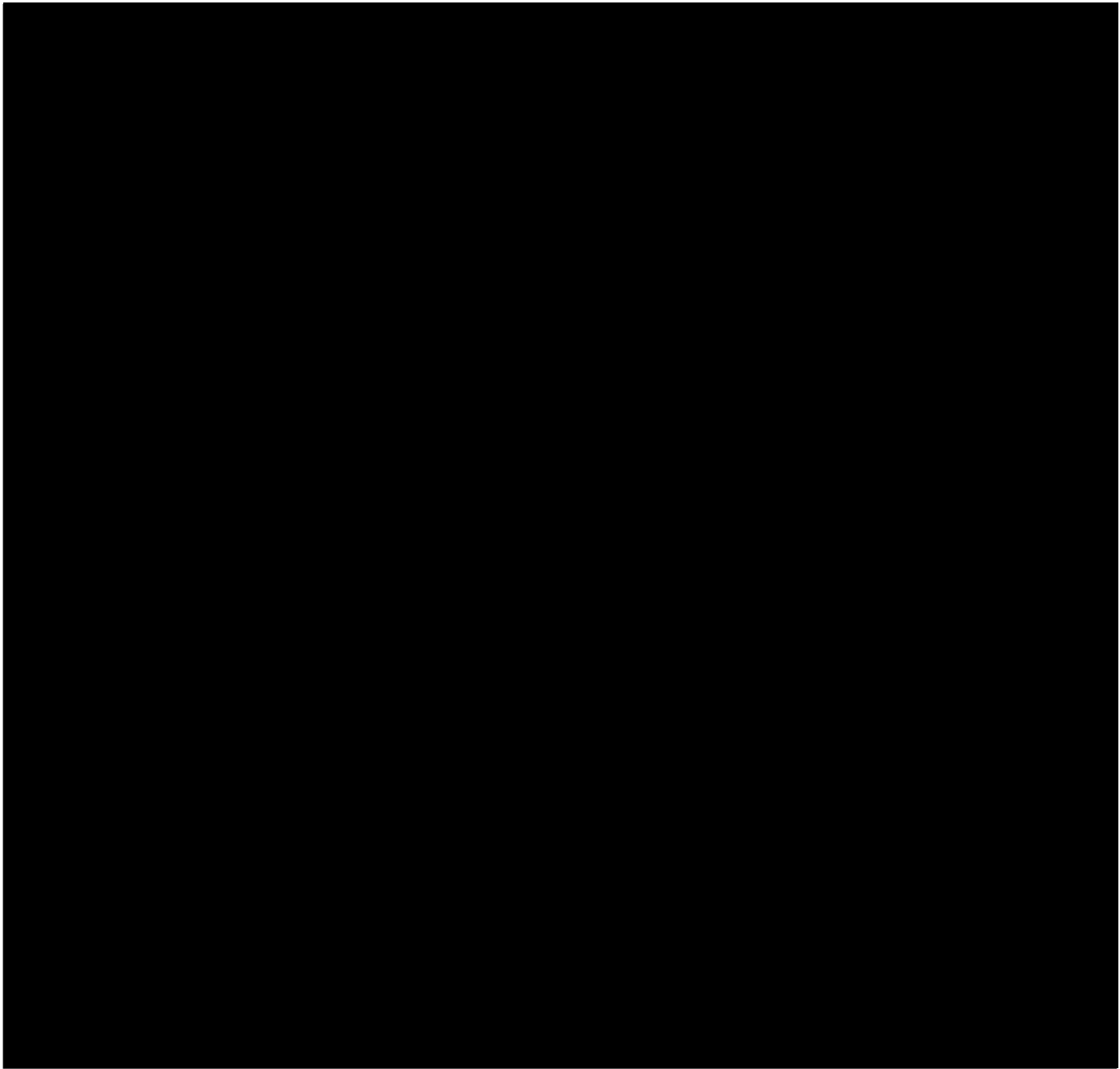


Fig. VI.6. Map of Tyrrhenian basin in reverse (after Gras 1985: 8, fig. 1).

Mediterranean, became not only an important source of natural resources (whether directly exploited by the Phoenicians, or for them) but also a key staging post for maritime traffic coming from various directions.

Written sources record next to nothing of the transactions, archaic or later, between the Phoenician and native world (Hans 1983: 5-32; Domínguez 1989: 547-569; Anello 1990-91). What is known involves major events in the island history (*e.g.*, Pentathlos, Dorieus, Battle of Himera; see ch. IX for further discussion), and to judge from these few events the Phoenicians and natives were on friendly and co-operative terms in Sicily, as generally seems to have been the case (Gras *et al.* 1989: 67-69; Aubet 1993: *passim*). Archaeology presently offers virtually no assistance in remedying the deficiencies of the written sources. Tamburello (1992) has recently broached this subject by collecting the known Phoenician/Punic archaeological material in native contexts, and of native material in Phoenician/Punic contexts. The finds are exiguous. Most of the material, consisting of isolated objects (often coins) of uncertain archaeological context and supposed influences, dates between the fourth to second centuries BC, when much of western Sicily was under Punic control. The socio-political impact the Phoenicians may have had on the natives has already been tackled (see above), but a fuller picture of these transformations awaits future work.

Before closing this section, mention should also be made of Carthage which, although not a Phoenician Sicilian city properly speaking, nevertheless played an important rôle, especially from the sixth century onwards, in the island's affairs. Geography was partly responsible for this: from Cape Bon in Tunisia to Selinous is a distance, as the crow flies, of 170 km (fig. VI.6). The foundation-date for Carthage in

written sources is around 814.⁴³ The earliest known archaeological evidence belongs to the second quarter of the eighth century (Lancel 1995: 32-34), and excavations continue to narrow the gap between written and archaeological evidence. It is justifiable to put faith in the date found in the written tradition; thus Carthage came into being well before the establishment of the Greek colonies in the west. At first Carthage was just another settlement in the western Phoenician diaspora (Gras *et al.* 1989: 198; Anello 1990-91: 179; Aubet 1993: 197), and we should generally be careful of retrojecting the city's later renown onto its more distant past.

The Foundation of Greek Colonies

The foundation of Greek colonies in western Sicily in the seventh and sixth centuries added the final component to the archaic settlement pattern. The young Greek *poleis* of Sicily, founded in the eighth century, were largely responsible for establishing these colonies. The Greeks undoubtedly explored and had contacts with the areas of western Sicily they later settled. At some sites (see below) there is evidence to back up these claims, but an interesting hand-made pot from Sant'Angelo Muxaro may document even earlier contacts than those so far attested (Fatta 1980; *cf.* Domínguez 1989: 458-459).

The pot in question is of native inspiration in shape and decoration, except for its pendent semicircles. The latter are so highly reminiscent of the well-known Euboian motif that they must have been inspired by a Greek original, or ultimately derived therefrom (Fatta 1980: 47). The context of the pot is completely unknown (Fatta 1980: 43);

⁴³ For fuller discussion, see Gras *et al.* (1989: 203-205); Aubet (1993: 187-190); Lancel (1995: 20-25).

nonetheless Gras (1992: 37 with n. 49) advances the hypothesis that the pot could reflect eighth-century Euboian activity in the area, better attested at this time across the Sicilian Channel in Tunisia in North Africa. The pre-colonial status of the Sant'Angelo Muxaro pot must remain an open matter. At the same time, it is reasonable to think, on the basis of this and other evidence below, that Greeks were plying the coasts of western Sicily in the eighth century, focusing their attention not only on suitable sites but also, as the Sant'Angelo Muxaro pot may suggest, on making contacts with the communities already established in the landscape.

Greek Sicily took the initiative in settling the western part of the island, with one exception, Gela on the south-west coast, the first settlement of this second wave (fig. VI.1). According to Thucydides (vi.4.3), Rhodians and Kretans established themselves at Gela in the forty-fifth year after the foundation of Syracuse, that is, in 688/7. Wentker's (1956: 130-131) reading of this Thucydidean passage comes up with an interesting conclusion. Thucydides says that the oikists, Antiphemos and Entimos, ἐποίκους ἀγαγόντες κοινῇ ἔκτισαν. What is significant, according to Wentker, is Thucydides' exceptional choice of words. The ἐποίκους is translatable as either "reinforcements" or "new settlers"; notable also is the use of the verb κτίζω, instead of οἰκίζειν. On this basis, Wentker (1956: 131) concludes as follows: "Somit kann kein Zweifel bestehen, daß im Stadtgebiet von Gela bereits eine griechische Ansiedlung bestand, als die „Zusiedler“ unter Antiphemos und Entimos landeten." Archaeology seems to support the idea of a contingent of Greeks living at Gela (whence the tombs) prior to the arrival of the settlers led by Antiphemos and Entimos.⁴⁴ The latter wave of colonists

⁴⁴ Orlandini (1963); De Miro and Fiorentini (1978); Fiorentini and De Miro (1983: 60-77); cf. Gras (1986: 12). The comments of Gomme et al. (1970: 217) and Casevitz (1985: 157-158) on Thucydides' terminology

is believed to represent the final stage in Gela's foundation.

On the north coast, Himera was founded by Khalkidians from Zankle and Syracusan exiles (Thuc. vi.5.1) (fig. VI.1). The foundation-date (unknown to Thucydides) of 648/7 derives from Diodoros (xiii.62.4), who says that Himera existed for 240 years before it was destroyed by Carthage in 408/7. The earliest archaeological evidence from the site itself dates to 625 (Belvedere 1978). Yet one very small PC sherd, perhaps originally belonging to a kotyle, from the nearby native site of Mura Pregne (*BTCGI* xii.129-138) may be evidence of pre-colonial activity (fig. VI.1) (C.A. Di Stefano 1982: 188; *eadem* in Pesetz 1984: 233 no. 1). Although the site chosen by the Khalkidians has so far revealed no signs of previous human occupation, abundant native pottery found in the early levels of Himera strongly suggests Greek/native co-habitation (Castellana 1980; C.A. Di Stefano 1982: 193).

The final spate of Greek settlement was attracted to the south coast, west of Gela, and it was to here that the Megarians turned to establish Selinous. Though unconfirmed, it is often credibly maintained that the central portion of this stretch of coast was already in Geloan hands, thus forcing the westward push of the Megarians (see De Angelis 1994: 107 n. 18 with earlier references).⁴⁵ Thucydides (vi.4.2) records that Megara Hyblaia requested an oikist from the homeland, and that Pammilos was dispatched at the head of a group of settlers who joined the Sicilian Megarians. According to Thucydides, this took place 100 years after the foundation of Megara Hyblaia, that is, in 628/7. Diodoros (xiii.59.4) and Eusebios (ed. Schoene, p. 89), however, preserve a foundation-date of

need to be modified in light of these archaeological discoveries.

⁴⁵ Around 580 Gela established Akragas hereabouts (Thuc. vi.4.4). Despite an unfounded earlier claim of pre-colonisation, the earliest archaeological evidence dates to the first quarter of the sixth century (de Waele 1971: 88-97).

651/0, calculated on the basis that Selinous had existed for 242 years when it was destroyed by Carthage in 409/8. Modern scholars have usually argued for one or the other of these two dates (for previous literature, see Wilson 1982: 101; Domínguez 1989: 361-362); let it momentarily be supposed that they represent two possible foundation-dates. Can archaeology help to settle the matter?

The discovery of several tombs, dating to before the mid-seventh century, containing most notably pots made in Megara Hyblaia, resolves the debate in favour of Diodoros (Rallo 1982; V. Tusa 1982; Dehl-von Kaenel, forthcoming).⁴⁶ But there is more at issue. Something must also be said about what often appear to be dual foundation-dates in ancient sources. Such double dates can either be regarded as mutually exclusive, or as different moments in the colonisation process (Whittaker 1974: 78; Gras 1986: 11), sometimes in conjunction with the idea of mixed origins in the colony (Braund 1994: 79). In Selinous' case we are probably dealing with the second line of reasoning, as Wilson (1982: 101) has suggested: Thucydides records the official, or better yet final, stage in the foundation of Selinous, whereas Diodoros an earlier one; interpreted as such, both dates are "right".⁴⁷ Therefore, the Diodoran date could refer to the initiative (whether private or state) taken by Megara Hyblaia at Selinous, and the later request of the Sicilian Megarians for settlers from mainland Greece (for probably the purpose of reinforcing and perhaps sanctioning the original effort) is what got recorded in Thucydides. At Selinous,

⁴⁶ In light of this revealing burial evidence, a fragmentary MPC kotyle found in the area of the later Malophoros sanctuary may be taken as yet another sign of Greeks just prior to the mid-seventh century, though it is premature to speak, as the excavators do, of an outright settlement (S. Tusa *et al.* 1986: 21).

⁴⁷ Wentker (1956: 131) believes that Thucydides' use of the verb *συγκοιτῶκισεν* may have here the sense of recolonise, though it could also mean to join in (Casevitz 1985: 217-218), an equally appropriate translation in view of the mainland settlers who took part in what seems to have been the initiative of the Sicilian Megarians.

accordingly, the foundation process lasted about a quarter-century.⁴⁸

The site chosen by the Megarians was already inhabited since the eighth century. The outcome of the native occupants, a matter fully examined in chapter nine as the first incident in Selinous' history, is uncertain; what is at least clear is that native settlement did not impede the development of Greek Selinous. This occurred on a site consisting of three hills (one comprising two parts) separated by two valleys, with a river flowing through roughly the middle of each valley (see fig. VII.1) (pl. 19). From east to west, these are today known as the Cotone and Modione valleys, the last being identified with the Selinous river mentioned in ancient texts (Manni 1981: 122). These rivers certainly were larger in antiquity than the present picture suggests.⁴⁹ The mouths of the Cotone and Modione rivers would furnish Selinous with suitable landfalls. The land enclosed by these rivers, a distance varying up to 1 km. which widens gradually as one proceeds inland,

⁴⁸ It now seems widely accepted that Selinous was established in roughly the mid-seventh century, and that the Diodoran/Eusebian foundation-date is to be preferred to the Thucydidean one. Payne (1931: 20-25; 1933: 20) based Korinthian pottery chronology on Thucydides' foundation-date for Selinous (cf. Amyx 1988: 398-403): Payne believed that since the earliest pottery at the site was apparently EC, that style began shortly after Thucydides' date of 628/7. However, the presence of much LPC and Transitional material at Selinous throws doubt on Payne's belief (for this earlier material, see Vallet & Villard 1958b: 17-22, and now, more fully, Dehl-von Kaenel, forthcoming): "Ainsi, l'affirmation de Payne, selon laquelle le début du corinthien ancien est à peu près contemporain de la fondation de Sélinonte, doit être révisée" (Vallet & Villard 1958b: 22). There are two possible solutions to this problem (so Vallet & Villard 1958b: 22): we can either keep Thucydides' date and lower the chronology of Korinthian pottery, or we can keep Payne's chronology and raise the date of Selinous' foundation. The options are fully reviewed by Dehl-von Kaenel (forthcoming), and the latter course seems preferable, especially because there is plenty of independent archaeological evidence demonstrating that MC did not begin until 600 BC; therefore, EC chronology did not end until then: "Die heute auswertbaren Befunde bestätigen somit im großen und ganzen die von H. Payne erarbeitete absolute Chronologie der korinthischen Keramik." Vallet and Villard (1958b: 24-26) arrived at much the same conclusion. EC is still to be situated around the beginning, or slightly after, the last quarter of the seventh century (Amyx 1988: 428). We need only raise Selinous' foundation-date to the mid-seventh century.

⁴⁹ The situation has even changed drastically in the last century; see Di Vita (1984b: 74 n. 10).

would occupy the bulk of the future settlement.

The prime components of this large tract of landscape are two hills. The first, that closer to the coast, is what until recently has been designated the acropolis of ancient Selinous, though in actual fact only the southern half of it may now be so labelled (for the change in terminology, see ch. VII below). Its natural orientation runs in a north-south direction. The hill in question rises to a maximum height of just over 30 m. (see contour map in Mertens 1989: fig. 2). At present the surface area of this hill covers some nine hectares (Di Vita 1984a: 9), yet extensive building activity of later centuries has to some degree modified its original physical appearance. The southern edge of the hill meets the sea as abrupt cliffs, whereas the descent to the three landward sides is more gradual. The northern of these sides also acts as a saddle linking its own hill with the second major geographical component of the land hemmed in by Selinous' two rivers, namely the Manuzza hill. Unlike its counterpart to the south, the Manuzza hill is oriented differently, in a north-north-west/south-south-east direction. The Manuzza hill is up to 15 m. higher (maximum height: 45 m. asl) and also twice as large as its southern neighbour (18 hectares: Di Vita 1984a: 9). The other natural topographic features of the site lay beyond both river-valleys. Of these two areas, that to the east of the Cotone river contains a narrower stretch of land to cross in order to reach the crest of the next hill, known locally as the Marinella hill, after the small modern town which has grown up beside it. The Marinella hill rises to a maximum height of 45 m., but in many places is no more than 30 m. asl. Across the Modione valley to the west lies the Gaggera hill, the third of Selinous' three hills, which also takes its name from local toponymy. The Gaggera hill has the same sort of height as the site's so-called acropolis (30 m.), though its eastern side has a sharper angle than the former's.

It was on this quite suitable site that the Megarians chose to found Selinous.

CHAPTER VII:
SETTLEMENT DEVELOPMENT

Introduction

Until the early 1970s, virtually all the archaeological investigations at Selinous had been devoted to studying urban history, and in particular the temples. After that date an important step was taken to remedy this situation, and various teams were created to explore other aspects of Selinous.¹ The previous narrow focus has inevitably produced a top-heavy archaeological record; to redress the imbalances will take years of new research. The most conspicuous lacuna is the lack of information concerning domestic settlement. Of this next to nothing was known until recently.

It is against this background that the following discussion must be read: a biased selection of settlement data is the main distortion. The lay-out of chapter II on Megara Hyblaia cannot be repeated here, therefore; in the place of such an arrangement, we must substitute fifty-year blocks. As the preceding remarks have made all too obvious, it is the nature of archaeological research at Selinous which compels us to do so.²

The Settlement Evidence

I. 650-600 BC

The settlement evidence datable to this half-century is of a domestic and religious nature, and perhaps by implication of a public nature too.

¹ See introduction for review of history of archaeological exploration at the site.

² The aim of this chapter is to look at the physical development of Selinous' archaic settlement, with demographic and social analysis of the material in chapters VIII and IX, as has already been done with Megara Hyblaia.

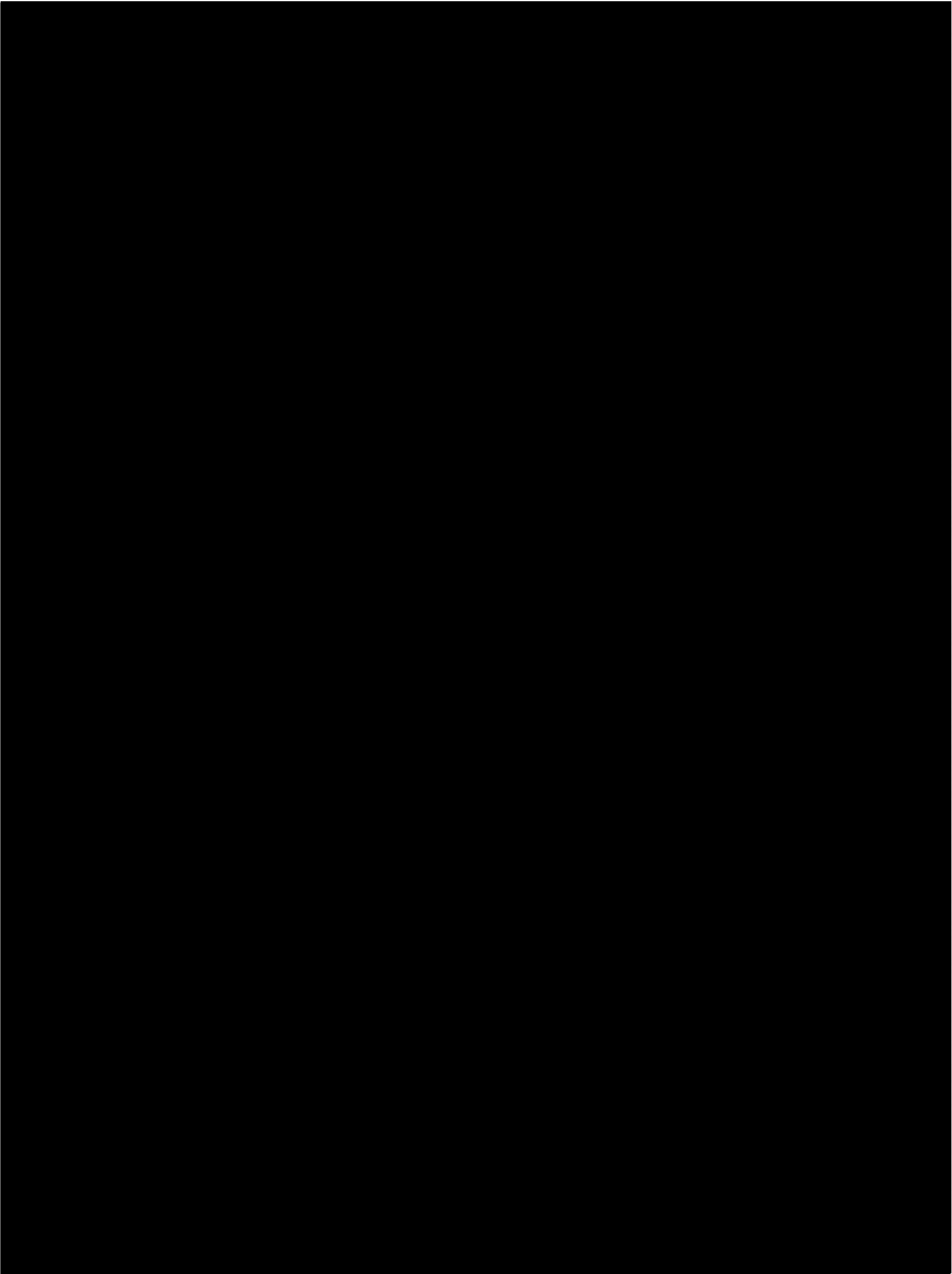


Fig. VII.1. Selinous: general site plan (after Dewailly 1992: fig. 1, with minor modification).

Remains of domestic settlement have been discovered on the Manuzza hill and the acropolis, with some tantalising hints of habitation from the area in between the two. Of these three areas, Rallo's (1976-77: 723, 725) explorations on the Manuzza provide the most detail (*cf.* Martin & Vallet 1980: 329). The houses, preserved to a height of up to 2 m., are only partially excavated; no complete plan is available. But, as with the archaic houses of Megara Hyblaia, they were built aligned perpendicularly to the block and also opened up onto a court to the south. The houses were also located in the centre of the block, away from the street edges. On the acropolis, in the north-west corner of a later Punic building, the French uncovered the remains of a seventh-century house (see Fourmont in V. Tusa 1984-85: 559). The excavator remarks on the similarity of the masonry with that used in the Manuzza houses, but says nothing about the house's alignment, perhaps because such information might have been irretrievable. In between the latter two areas, trenching revealed pottery of the last quarter of the seventh century which, together with meagre but suggestive vestiges of house walls, could indicate the presence of a "tracé régulier" then.³

These snippets of domestic settlement evidence could indicate the existence of some form of systematic design in the seventh century, and by extension the division of public space into streets. The paucity of information hinders the drawing of any definite conclusions.

The earliest known public buildings are connected with the sphere of religion. Work on the acropolis may have produced evidence indicating that its sacred precinct originated in the late seventh century.

³ See de la Genière and Rougetet (1985: 291-292, for details of the trench, 293 for quotation).

Fig. VII.2. Early sacella without peristasis at Selinous (after Romeo 1989: 41, fig. 15).

One of the structures has been dubbed the "tempietto con acroterii a spirale" located about 50 m. east of temple D (of later date) (fig. VII.2).⁴ Its plan is quite elongated, measuring 15.95 m. by 5.64 m., and consists of *pronaos* and *naos*. Other details of the plan are unknown, however. Also apparently connected with the "tempietto" is a four-roomed *oikos* complex adjacent to its south flank, and an altar directly to the east (Gabrici 1929: 81-82).

Early versions of temples C and D are also hypothesised to have existed already in the seventh century (Bergquist 1992: 119), but only for one of these, temple C, are there possible material remains.⁵ The evidence in question consists of a group of large roof terracottas uncovered by Gabrici (1933: 160-168), who simply says that they once adorned a sacred building of large dimensions. The terracottas stand to a height of 1.18 m., of size comparable to two peripteral temples at Syracuse, the Apollonion and Olympeion, and to one from Selinous itself, temple C. On stylistic grounds the terracottas can be dated to the late seventh/early sixth century. Østby (1995: 87-88) reasons that the roof terracottas could only have feasibly belonged to one candidate, namely temple C, since there is no other temple of the requisite size on the acropolis. The postulated early version of temple C may have stood on the same site as its successor, for scant remains of a possible structure were found underneath it (Koldewey & Puchstein 1899: 95-96; Gabrici 1933: 167-168). The temple may

⁴ Gabrici (1929: 80-81; 1933: 150-159; 1956: 245-249); *cf.* Romeo (1989: 40 no. 63).

⁵ Unless otherwise stated, all the temple architecture at Selinous follows the conventions of the Doric order. It should also be noted that the bibliography for the various temples is restricted only to the basic works; the practice of citing every single bibliographic item published to date has been eschewed.

have existed for only two or three decades, as some of roof terracottas were found in the fill of the acropolis terrace (Gabrici 1933: 161), which came into being by the mid-sixth century (see below).

On the Marinella hill, Gullini's (1978b) work on temple E led to the discovery that it may have had a predecessor from as early as the late seventh century (*cf.* also Romeo 1989: 43, no. 68).⁶ Only a few blocks of less than half of temple E1 survive ; nevertheless the plan, oriented in east-west fashion, could be reconstructed with reasonable certainty. Temple E1 seems to have had no peristasis, and perhaps two rows of parallel columns in the cella block; the edifice so restored would have been composed of *pronaos*, *naos*, and *adytum*. The overall dimensions of temple E1 may have been close to those of temple E3, the temple's final version visible today, *i.e.*, 75 m. by 30 m., but this is far from certain. Temple E was probably dedicated to Hera (V. Tusa 1967; Bejor 1977: 453-454; Parisi Presicce 1985: 80).

The last of the known evidence comes from the eastern slope of the Gaggera hill, to the west of the main settlement. These investigations revealed the first altar of the sanctuary of Demeter Malophoros, as well as ample signs of cult activity in and around this structure. More recent work on the hillside has uncovered other traces of cult activity just north-west of the latter sanctuary; these are thought to belong to a separate phenomenon (see Dehl & Dewailly in S. Tusa *et al.* 1986: 66).

II. 600-550 BC

In the early sixth century, the sanctuary of Demeter Malophoros received its first

⁶ Temples E, F, and G on the Marinella hill at Selinous are also sometimes respectively referred to as ER, FS, and GT. This practice is a compromise combining two different systems of referencing (Holloway 1991: 180 n. 3).

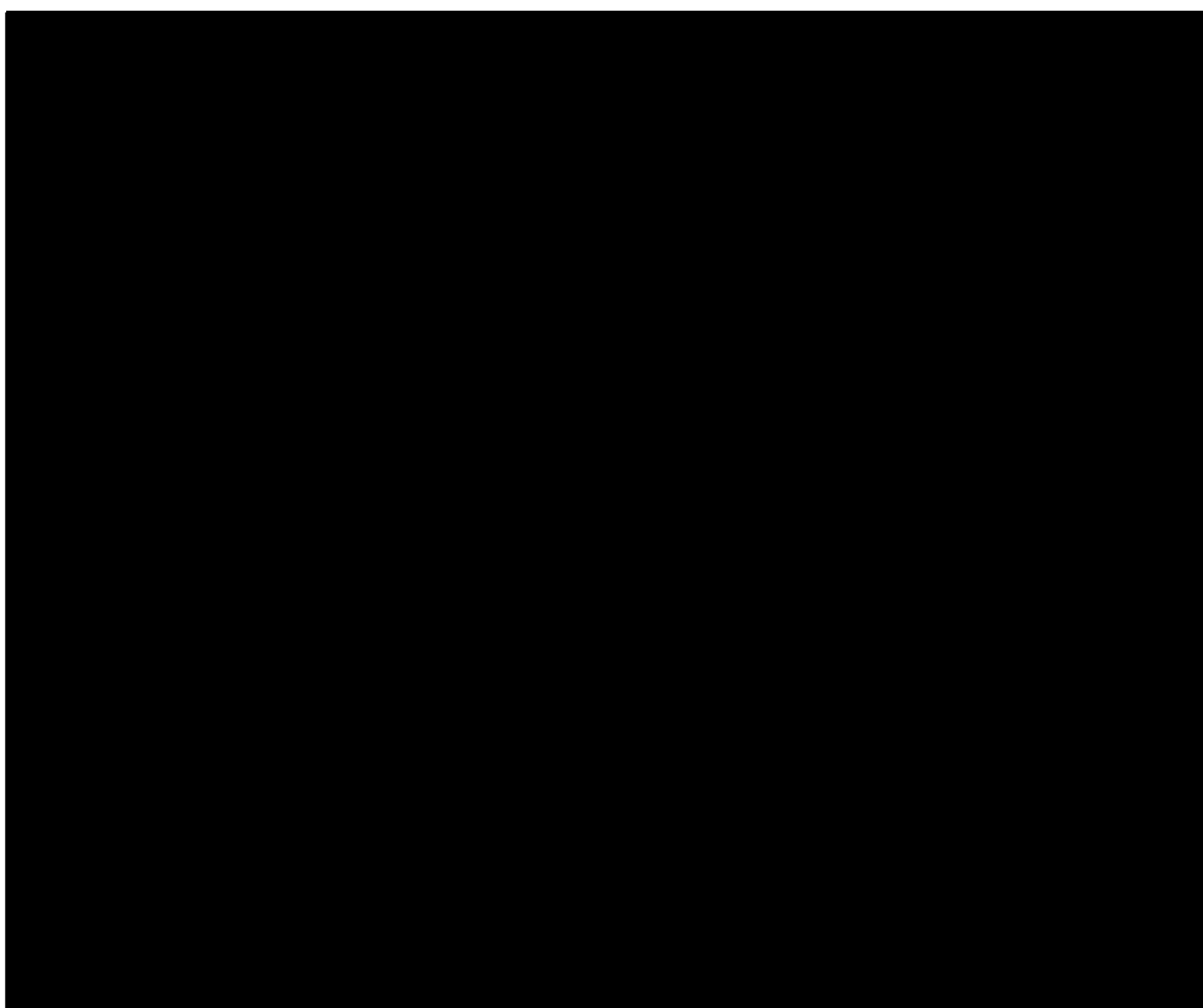


Fig. VII.3. Sanctuaries of Demeter Malophoros, Hekate, and Zeus Melikhios (after Bovio Marconi 1966: 177, fig. 231).

stone edifice (Gabrici 1927: 66-73; Romeo 1989: 40, no. 64; Dewailly 1992: 9-11). Of rectangular shape, the building measures *ca.* 8.5 m. by 5.65 m., entered on the east side by a door (the sill is *ca.* 2.2 m.) (fig. VII.2). The temple is oriented in east-north-east/west-south-west fashion, perhaps following the positioning of the seventh-century altar (fig. VII.3). Several courses of the temple's walls remain; the blocks of the façade are large and quite nicely cut, whereas those of the other three sides are of smaller stones. At the same time, in archaeological terms, two new altars were also built on top of the previous one.

Archaeological explorations of the last two decades in various sectors of ancient Selinous have unanimously shown that the town plan certainly came into being around 580-570 (Di Vita 1984a: 23; Østby 1995: 85, 87). The discovery of this town plan is due to nothing short of pure detective work.

Credit for the rediscovery of the archaic and classical town plan must be given to the French team working on the acropolis, and in particular to the astute observations of de la Genière. When this team began its work there, it assumed that the then accepted view of the plan was correct, and that, consequently, attention would only have to be focused on sharpening up the picture by the addition of details.⁷ As excavation progressed, already by 1975 two matters led to the questioning of the "received wisdom." The east-west artery running across the southern third of the acropolis (the artery is just south of temple C on fig. VII.1) was shown to be of hellenistic/Punic date.⁸ The second anomaly was even more

⁷ For the old view, see, for example, Castagnoli (1956: 13-15).

⁸ Cf. de la Genière (1982: 470-471, 473 with references to earlier bibliography). Di Vita (1984a: 12), however, sees this same east-west artery as an important element in the archaic and classical city. Bergquist (1992: 118-119) thinks the debate is unresolvable, but the

serious. From aerial photographs taken of the site, block A, the northernmost one on the acropolis on the intra-mural side of the fortified gate, appeared as being only half the size of all its neighbouring blocks to the south, as if abruptly cut by the fortification system (fig. VII.1). This observation raised suspicions that the matter was a lot more complex than originally envisaged.

The hunches of the French team were tested by excavation. Two extra-mural trenches, one to the north and the other to the west of the citadel, were opened up; these small-scale investigations clearly revealed that the major north-south axis and street B continued beyond the confines of the acropolis (de la Genière 1980). In fact, a mid-sixth century house ("maison α ") was found 5 m. north of the acropolis fortifications; the abode had been constructed perfectly aligned with the north-south axis, leaving little doubt that a coherent residential quarter existed outside the acropolis (for "maison α ", see de la Genière 1980: 1296-1297). The results obtained from these two trial trenches encouraged further similar explorations. The existence of streets 0 and 1, north of the acropolis, were confirmed in 1979 (de la Genière & Theodorescu 1979), with streets 2, 3, and 6 (the latter being another major east-west axis, like street F on the acropolis) coming to light in 1981 (de la Genière 1981; see fig. VII.1). The next season of work was concerned with unearthing streets 4 and 5, as well as clarifying further details of street 6, particularly how it connected with the Manuzza hill (de la Genière & Rougetet 1985).

The overall plan that emerges from combining the old and new data is one of

arguments advanced by the French team are conclusive enough to throw serious doubts on the existence of this east-west artery in the archaic and classical city.

simplicity and aimed at being functional (so de la Genière 1981: 216). Twelve blocks occupied, from river to river, about half of the acropolis and all the area up to the foot of the Manuzza hill (a distance of some 400 m.; fig. VII.1). These units were bounded by axes F and 6, each approximately 6.5 m. in width, with streets measuring between 3.6 and 4 m. wide separating the blocks. The blocks were further divided into two groups by a north-south axis, *ca.* 9 m. wide; accordingly, each block is *ca.* 29 m. wide. The lengths of these blocks and any possible north-south intersections between them remain unknown on account of the lack of excavation (this town plan is published in de la Genière & Rougetet 1985: fig. 1, and it is incorporated on the site plan reproduced here as fig. VII.1).

At this point it is necessary to bring in Rallo's parallel and complementary work on the Manuzza hill. Prior to Rallo's excavations, aerial photography had already revealed traces of rectilinear town planning which followed the hill's natural orientation (Schmiedt 1957: 22-24; see also Rallo 1974). The aims of Rallo's (1976-77: 721) work were to test, on the ground, Schmiedt's reconstruction from the aerial photographs and generally to establish the nature and date of occupation on the Manuzza hill.

As regards the first of these two goals, excavation has indeed confirmed previous hypotheses, but at the same time has brought to light other unsuspected items of Selinous' ancient topography. Although Rallo's excavations of the early 1970s were of great interest, the results remained tantalising because exploration was limited to an area of 450 m.² (Rallo 1976-77: 723). Her work a decade later has had a greater impact.

It has been revealed that the blocks in this quarter of the city were grouped around a central axis (labelled *plateia* 0 by the excavator), *ca.* 8.5 m. wide, running in a north-north-

west/south-south-east manner (Rallo 1984: 83-84) (fig. VII.1). That this was a major thoroughfare is clear from both the evidence left by constant traffic and by the paved, sturdy nature of its construction. This axis was cut by three east-west transverse streets, the middle one of which has a width of 6.3 m., whilst the other two are a little more than half its size at 3.8 m. The resultant design creates two main series of blocks, with those to the east of the major axis apparently being more numerous. As is the case in other parts of the city, all the blocks on the Manuzza hill are *ca.* 29 m. wide, and are separated by streets, 3.3 m. in width, oriented north-south. The clearest indication of block length is provided by the group situated to the west of the major axis. The northernmost ones measure 180 m. in length, and those to the south are 195 m. (Rallo 1984: 90). Mertens' (1988-89: 590) work on the fortifications has shown that habitation, and presumably the Manuzza urban system with it, extended into the valleys around the hill. The most surprising aspect of Rallo's work has been on the south-east part of the Manuzza hill. Here a completely unsuspected archaic necropolis (see below) and a third orientation in the town plan were uncovered. The location of the Manuzza necropolis, which was in use from the middle of the seventh century down to the fifth, makes it impossible for residential blocks to continue into this area. As for the third orientation, lack of exploration impedes detailed discussion (apart from its existence, nothing can at present really be said about it), but, as Rallo (1984: 91) points out, the nature of the terrain hereabouts almost certainly dictated this third variation in the town plan.

The discoveries of the French and Italian teams under the respective direction of de la Genière and Rallo have changed forever our view of Selinous' urban topography (pl. 20).

Quite apart from some minor differences of opinion,⁹ these two scholars are in complete agreement that the city's *agora* could only have lain at the south-west foot of the Manuzza hill, where all three orientations in plan came together into one centre of focus.¹⁰ Rallo's *stenopos* IV west joins with de la Genière's street 6 (de la Genière & Rougetet 1985: 295), and it appears very probable that Rallo's street F-I formed the northern limit of the *agora* (Rallo 1984: 89) and de la Genière's street 6 the southern limit (de la Genière & Rougetet 1985: 296). If these propositions are correct, Selinous' *agora* was similar in shape to Megara Hyblaia's, hence trapezoidal.¹¹

These discoveries have changed our understanding of the physical organisation of the settlement. In consequence, de la Genière and Rougetet (1985: 296) have proposed amendments to the terminology previously used to describe the city's urban features, in order to reflect more accurately the new situation (the suggested semantic shift has been adopted in the only subsequent discussion of Selinous' topography: Mertens 1993). It is now correct to refer only to the area south of street F as the acropolis. The rest of the settlement follows a twofold division: the part enclosed by streets F and 6, extending as far as both rivers, is known as the south sector of the settlement (in French "le secteur méridional de l'habitat"), with everything north of street 6, including all the slopes of the Manuzza hill, known as the

⁹ E.g., Rallo (1984: 82) thinks that her colleague fails to take enough account of the nature of the terrain.

¹⁰ Rallo (1984: 89); de la Genière and Rougetet (1985: 296), where, because Rallo's (1984) article was finally published in 1988, only two orientations in plan are thought to be the case.

¹¹ Work in the *agora* began in summer 1994 (see Willeitner 1993: 290 for announcement of work), but no results have been made known. On the shape of the *agora*, Rallo (1984: 91) and Willeitner (1993: 290); de la Genière and Rougetet (1985) are non-committal.

north sector of the settlement (in French "le secteur septentrional de l'habitat"). Future work, especially that in the *agora*, will likely refine these terms, though for the time being the vocabulary proposed by the French team portrays ancient reality better than before.

Appearing at the same time as the town plan is a long and narrow (17.85 m. by 5.31 m.) *megaron* on the acropolis; the date is derived from stylistic parallels (fig. VII.2).¹² It is located just to the south of temple C (built later), and comprises a *naos* (9.1 m. in length), with the remains of two column bases (almost 3 m. apart) found in a single line along the temple's main axis, and an adytum separated off from the *naos*. The *megaron* may have been dedicated to Demeter (Bejor 1977: 450).

On the Gaggera hill, a new sanctuary was found in the mid-1980s (pl. 21). The cult was dedicated to Hera.¹³ The Heraion, oriented in an east-west direction, dates to the first quarter of the sixth century (fig. VII.2). The plan is rectangular with dimensions 16.25 m. by 6.76 m., divided between the *pronaos* and *naos*.¹⁴ There is no trace of a peristyle. The *temenos* had its own peribolos walls built by the mid-sixth century (S. Tusa *et al.* 1984: 21, 23, 28; S. Tusa *et al.* 1986: 56-57).

The last known building is temple Y, sometimes also known as the "tempietto delle piccole metope," perhaps constructed in the second quarter of the sixth century. This structure, completely dismantled in antiquity, survives only in stray pieces found on the

¹² Koldewey and Puchstein (1899: 92); Hulot and Fougères (1910: 233); Pace (1922); Dinsmoor (1950: 45); Romeo (1989: 39 no. 62).

¹³ The evidence for this identification, albeit meagre, is nevertheless quite indicative: see Parisi Presicce in S. Tusa *et al.* (1986: 52-53). Parisi Presicce (1985) has also placed the sanctuary in its larger cultic context.

¹⁴ S. Tusa *et al.* (1986: 40, 47-48); cf. Romeo (1989: 43 no. 67).

acropolis. Judging from these find-spots, the temple is usually believed to have originally stood somewhere on the acropolis, though no exact position can be presently advanced.¹⁵ All that can be said as regards temple Y's plan is that it was peripteral and smaller than the version of temple C built slightly later. We will certainly be better informed about temple Y when the fragments recovered of it by Mertens (1988-89: 594) are published. Seven metopes may have once adorned this temple, but the connection is uncertain.¹⁶ The moulded decoration of the revetments and particularly the metopes betray artistic influences paralleled in the Aegean islands (Barletta 1983: 189-201; Østby 1987: 127-128).

III. 550-500 BC

Construction of the city wall began in the mid-sixth century (Mertens 1988-89: 575-579; 1989: 97-99). It used to be thought that the fortifications visible at the site had an archaic forerunner (V. Tusa 1986b: esp. 115). However, Mertens' research has convincingly demonstrated that these fortifications belong to after 409/8, and attention was accordingly directed to finding the archaic/classical ones.

Various clues guided the placing of the trenches.¹⁷ Many of the clues pertained to the Cotone valley, and this became the obvious place to begin.

¹⁵ Gabrici (1933: 206-218; 1956: 249-256); Østby (1995: 91-92); for the acropolis spoils generally, see Mertens (1988-89: 591-594; 1989: 143-146).

¹⁶ For full discussion of these metopes, see Giuliani (1979: 37-66); V. Tusa (1983: 109-114 nos. 1-6, 183-184). The metopes, sculpted in local limestone, measure roughly 0.68 m. high by 0.82 m. wide; the subjects depicted generally consist of divinities engaged in various activities.

¹⁷ For full discussion, see Mertens (1988-89: 586-587); *cf.* also Di Vita (1984b: 69, 71). The clues centre essentially around the nature of the terrain and the observations of earlier generations of scholars and local informants.

Several years of research in this area have uncovered substantial vestiges of Selinous' original fortification system. The city wall, following the Cotone river bed, is as a result oriented in a north-south manner; it was constructed at a distance between 30 and 100 m. from the present bed of the Cotone river (Mertens 1988-89: 587; 1989: 132-135). The wall is about 4.5 m. thick, with a rubble fill in between the two faces. The outer of these two faces was built, in its upper courses, of large almost isodomic blocks, whereas the lower courses consist of ashlar masonry. The inner face was constructed of smaller blocks. A paved road (6.5 m. wide) lined the inside of the walls (Mertens 1988-89: 588). The east gate was made up of a semi-circular tower flanked by a double door (brief mention in Willeitner 1992: 313, 310 figs. 1-2) (pl. 22).

Much work remains to be done on the fortifications, for areas such as the Modione river-valley have yet to be tested at all (Mertens 1988-89: 591), though Di Vita (1984b: 75) has advanced the view that the city wall may have also followed the course of the river Modione.

The mid-sixth is also roughly the time when monumental temples began to appear at Selinous. Temple C on the acropolis is the "protagonista monumentale" (Di Vita 1984a: 34). Its plan is hexastyle, with a second row of six columns behind the first set on the east side, thus forming a double-colonnaded facade (fig. VII.4); the temple's longer flanks consist of seventeen columns apiece (pl. 23).¹⁸ Temple C measures 71.07 m. by 26.62 m.; for these dimensions the *sekos*, which is made up of *pronaos* with wide doorway, *naos*, and adytum,

¹⁸ For discussions of temple C, see Koldewey and Puchstein (1899: 95-105); Hulot and Fougères (1910: 216-230); Gabrici (1935: 167-198); Dinsmoor (1950: 80-83, 337); Gabrici (1956: 257-272); Gruben (1976: 279); Gullini (1986: 442 with n. 37).

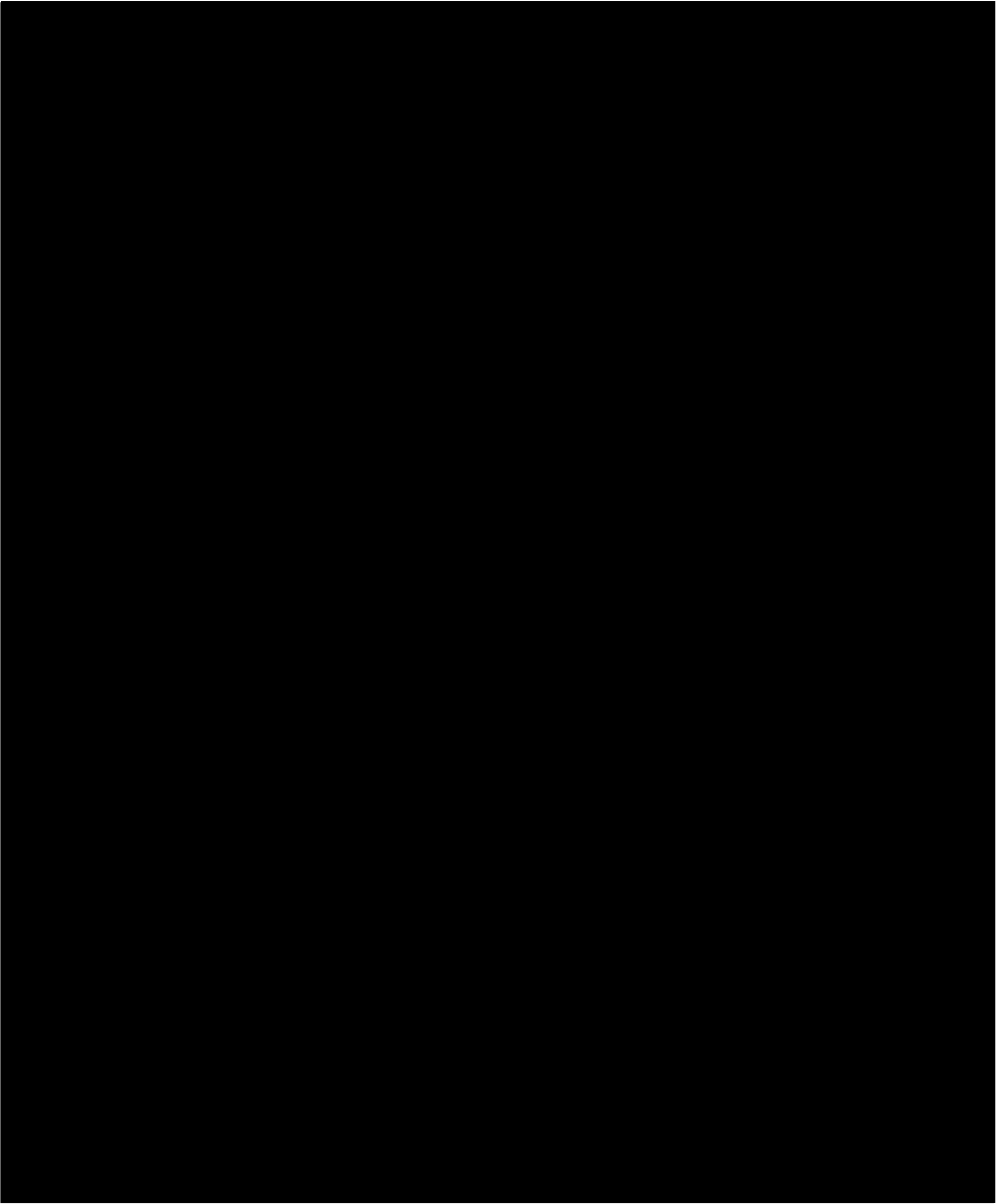


Fig. VII.4. Plans of Selinous' peripteral temples (after Bovio Marconi 1966: 178, fig. 232).

is rather narrow. Most of the columns, which rise to a height of 8.5 m., were built up in drums, though some (all those on the east flank and seven on the south flank) are monolithic. The entablature is about half the height of the columns. East Greek concepts and influences can be traced in the structure of the temple (Barletta 1983: 203-207). The temple was decorated with sculpted metopes, three of which survive.¹⁹ They depict Perseus killing Medusa, Herakles and the Kerkopes, and a charioteer (pls. 24-25). Temple C's altar was located 30 m. directly in front of it. The divinity worshipped here may have been Apollo (V. Tusa 1967; Bejor 1977: 449). The size of temple C necessitated the construction of an artificial terrace (Di Vita 1984a: 14, 21, 32; Østby 1995: 87-88). Some 25,000-30,000 m.³ of earth was supported by a large retaining wall of ashlar masonry.

Behind temple C is the building Gabrici (1929: 101-102; 1956: 219-229) nicknamed the *phrourion*, constructed in the second half of the sixth century. Only the foundations of this structure survive, but two rooms, lying side-by-side, can be made out. They measure 4.25m. by 7.95 m., and 4.15 m. by 10.25 m. A stretch of wall about 13 m. long is all that remains of what may have been a third room. All masonry consisted of ashlar blocks. The *phrourion* identification rests solely on Gabrici's belief that early Selinountine topography was organised according to the Theognidean description of ἀκρόπολις καὶ πύργος (v. 233), but that idea has fallen out of favour in view of recent advances in the archaeology of Selinous (Di Vita 1984b: 69). In reality, it is altogether legitimate to describe the purpose of the so-called *phrourion* as "enigmatic" (Østby 1995: 96).

¹⁹ For the metopes, see Giuliani (1979: 11-36), V. Tusa (1983: 114-117, nos. 7-9), and Østby (1987: 129).

Construction on temple D began within a decade of temple C, its neighbour to the south.²⁰ Like the nearby temple C, temple D is also peripteral and of hexastyle plan, with thirteen columns on the longer flanks (fig. VII.4). At 56 m. by 24 m. its dimensions are smaller than temple C. Temple D's cella block is similarly narrow and consists of *pronaos*, *naos*, and *adytum*; the difference between temples C and D lies in the omission of the inner row of columns between the entrance of the *pronaos* and the six columns of the facade, which, in the case of temple D, instead gets translated into four columns *in antis*. Minor Ionic influences are detectable in the temple's decorative features (Barletta 1983: 207-208). The accompanying altar was built at a slightly oblique angle, touching the south-east corner of the temple. Temple D may have been consecrated to Aphrodite (V. Tusa 1967), or to Athena (Bejor 1977: 449-450).

The acropolis' sacred precinct next received a *stoa*, built on the artificial terrace directly in front of temple C in the third quarter of the sixth century (Di Vita 1967: 27).²¹ The *stoa* consists of two arms of unequal length (74 m. by 29.3 m.), but equal depth (7.4 m.), which meet at an obtuse angle. The position was due to the exigencies of the site (Coulton 1976: 95). The two arms were closed halls with non-monumental colonnade (the columns measure 0.43 m. in diameter and are set 3.7 m. apart). A little after its construction a portico was added to the front of the east wing and possibly to the south wing as well (*cf.* Coulton 1976: 32 n. 6 for reasons against the contemporaneity of the hall and portico). The *stoa*

²⁰ Koldewey and Puchstein (1899: 106-110); Hulot and Fougères (1910: 230-235); Dinsmoor (1950: 98-99, 337); Gabrici (1956: 274-275); Gullini (1986: 443).

²¹ The main publication is Di Vita (1967); earlier work can be found in Gabrici (1927: 78-80). *Cf.* also Coulton (1976: 281, 283).

survives largely in its foundations and in its floor, which was laid down in square-shaped tiles of 3-5 cm. in size (for an attempted reconstruction, see Di Vita 1967: 23-24). Some architectural elements found by Mertens (1988-89: 593) re-used in the later city wall seem to belong to this *stoa*.

The Gaggera hillside witnessed further building activity at this time as well. There was first, in the 550-540 decade, more building in the sanctuary of Demeter Malophoros, resulting in the second megaron (Gabrici 1927: 21-52; Romeo 1989: 40, 42, no. 65; Dewailly 1992: 26) (fig. VII.2). This new building measures 20.2 m. by 9.69 m., and its plan is tripartite, with shallow *pronaos*, *naos*, and *adytum*. The previous altar was also renovated; the new version, built in large ashlar blocks, measures 16.4 m. by 3.15 m. (Gabrici 1927: 53-62; Dewailly 1992: 23-26). Between the temple and altar runs a water conduit for cult purposes (fig. VII.3). A peribolos wall, constructed at some point in the second half of the century, contained the sacred area (see S. Tusa *et al.* 1984: 38-46; 1986: 59, 72).²²

About 300 m. north-east of the sanctuary of Demeter Malophoros are the remains of temple M, first excavated in 1954-1955, but never published except in the briefest of

²² Just to the north of the sanctuary of Demeter Malophoros is the sanctuary of Zeus Meilikhios (Gabrici 1927: 91-107), which belonged to its own separate *temenos* measuring 17 m. per side (fig. VII.2) (Dewailly 1992: 36-37 emphasises the point, largely unrecognised until recently, that the sanctuary of Zeus Meilikhios was not at all subordinate to that of Demeter Malophoros). Evidence of cult activity here can be traced back to the second half of the sixth century (see Dewailly 1992: 148-150), but the remains visible today seem to date to the fourth century (White 1967: 349; Jameson *et al.* 1993: 93-94). It is unclear whether an archaic building preceded this one. In the west part of the *temenos* stood a small distyle prostyle temple, measuring 5.3 m. by 2.97 m. (a new plan of this temple is contained in Vaccarello 1986). Two fluted monolithic Doric columns support an Ionic architrave with two fascias. A colonnaded portico ran along two of the *temenos*' sides. The well-known bicephalous dedications also belong to the post-409 period (Jameson *et al.* 1993: 103-107).

mentions.²³ Temple M is dated to the second half of the sixth century. Its plan, surviving only in bare outline, is of rectangular shape, and measures 26.8 m. by 10.85 m. The temple is divided into two parts, *pronaos* (occupying slightly less than one-third of the whole) and *naos*, and is preceded by a large staircase of four steps. The area between and around the temple and its monumental altar is paved with flagstones. The divinity worshipped here is unknown, but the cult was supplied with water by means of a conduit, similar to that located between the temple and altar in the neighbouring sanctuary of Demeter Malophoros. Two fragmentary reliefs, both depicting two warriors fighting, were found close to the Malophoros sanctuary at the time of temple M's discovery (V. Tusa 1983: 125-126, nos. 19-20). It is uncertain whether these reliefs are to be associated with temple M.

On the Marinella hill, a new peripteral temple, known as temple F, was built alongside temple E around 520.²⁴ Temple F measures 61.83 m. by 24.43 m.; hexastyle in plan with fourteen columns on the longer flanks, it comprises *pronaos*, *naos*, and *adytum* (fig. VII.4). As in the case of temple C on the acropolis, there were four columns lined up north-south with the second column of each longer flank. The most unique feature of temple F is the

²³ Bovio Marconi (1954; 1958a: 58; 1960: 236-237; 1961: 12-13; 1966: 180); cf. Romeo (1989: 42-43 no. 66). Masseria (1978-79) argued that temple M was actually a monumental fountain. Sguaitamatti (1993), however, the monument's most recent excavator (investigation of this monument began afresh in 1983), has recently upheld the initial identification, basing his view on the old excavation notebooks and on new data which he has himself uncovered. It should be noted in this connection that Sguaitamatti's (1993) brief article is intended only to refute Masseria's theory; it is not in any way an exposition of his recent work on temple M (cf. Sguaitamatti 1993: 151, 157 to this effect).

²⁴ For the date, see now Gullini (1986: 443 with n. 40); for general discussions of the temple: Koldewey and Puchstein (1899: 116, 117-121); Hulot and Fougères (1910: 246-249); Dinsmoor (1950: 98-99, 337); Gruben (1976: 277-279).

screen wall (4.7 m. high) connecting the columns of the peristasis, *i.e.*, reaching up a little more than half the height of the columns themselves. Entrance was only through the east side. The frontal frieze was adorned with sculpted metopes (V. Tusa 1983: 118-119, nos. 10-11). Two of the metopes survive, both with an episode of the Gigantomachy. Temple F may have been sacred either to Athena (V. Tusa 1967) or to Dionysos (Bejor 1977: 450-453).

Work on temple G, the third and final one on the Marinella hill, started sometime in the last quarter of the sixth century.²⁵ Temple G is one of the largest temples ever raised in the ancient Greek world (Feyerabend 1971); its dimensions are 50.07 m. by 110.12 m. (fig. VII.4). The temple is octastyle in plan with seventeen columns on its longer flanks. The columns rose to a height of 16.27 m., supporting an entablature of almost 14 m. in height (producing a colossal edifice standing about 30 m.). The *sekos* measures 85 m. by 25 m. and is divided into *pronaos* with hexastyle prostyle, *naos* with two rows of ten columns *in antis*, and *opisthodomos* with distyle *in antis*. Temple G was in all likelihood dedicated to Zeus (V. Tusa 1967; Bejor 1977: 440-441). The temple was never finished, and it used to be thought that work on it was interrupted by the Carthaginian sack of the city in 409/8. Recent research, however, suggests that "Aufgrund der Datierung der Kapitelle der jüngeren Westfront um 480-470 v. Chr. wurde bereits ein früherer Abbruch erwogen" (Peschlow-Bindokat 1990: 36).

²⁵ Koldewey and Puchstein (1899: 121-127); Hulot and Fougères (1910: 249-258); Dinsmoor (1950: 99-101, 337); Gruben (1976: 279-284); Gullini (1986: 444).

IV. 500-450 BC²⁶

On the acropolis, south of the other temples of preceding centuries, two temples, today in ruinous state, and of virtually identical design and size, were built sometime in the first half of the fifth century. Temple A, the northernmost of the two and also better preserved than its "twin", is a peripteral temple of hexastyle form and composed of fourteen columns on its longer flanks (fig. VII.4).²⁷ Temple A measures overall 40.3 m. by 16.13 m., and the *sekos* comprises *pronaos*, *opisthodomos* (the latter two components with distyle *in antis*), *naos*, and *adytum*. Temple O has these same features, though it is ever so slightly larger (for bibliography refer to references just given for temple A). The dates proposed for these temples have wandered over much of the first half of the century, particularly the three middle decades (490-460) of this period; uncertainty is likely to remain as long as there is a scarcity of datable (in both stylistic and absolute terms) material. The temples were also enclosed within their own peribolos walls (Di Vita 1984a: 50). The "twin" appearance of these two temples has led scholars to believe that they were dedicated to Apollo and Artemis (V. Tusa 1967; Bejor 1977: 454-455).

The acropolis *temenos* was also surrounded by one large peribolos wall at some point in the first half of the fifth century (de la Genière 1981: 214; Di Vita 1984a: 48).

In the latter part of this fifty-year block, temple E on the Marinella hill took on its final

²⁶ The chronological uncertainties of the early fifth-century settlement evidence necessitate the widening of the archaic cut-off point adopted in this study.

²⁷ Koldewey and Puchstein (1899: 111-115); Hulot and Fougères (1910: 238-239); Dinsmoor (1950: 110, 338); Gabrici (1956: 276-281); Gruben (1976: 270); Mertens (1984: 82-87). For temple A's unique altar, built in third quarter of the fifth century, see Lauter (1976; 1977).

form.²⁸ Around 510, after temple E1 had been destroyed by fire, renovation began almost immediately (known as phase E2), but was suspended for some unknown reason(s) until now (Gullini 1978b: 53). Temple E3, finished around 460 (Gullini 1978b: 53), measures 75 m. by 30 m. and is of hexastyle plan with fifteen columns on the longer flanks (fig. VII.4). The cella block is organised in a way similar to temples A and O on the acropolis (of roughly the same date), *i.e.*, *pronaos*, *opisthodomos* (the latter two with distyle *in antis*), *naos*, and *adytum* (pl. 26). Five of temple E3's metopes have been found (V. Tusa 1983: 119-123, nos. 12-16). The metopes measure about 1.62 m. high by 1.32 m. wide, and they show scenes of Herakles and an Amazon, Zeus and Hera, Artemis and Aktaion, Athena and a giant, and Apollo and Daphne. The metopes date to 470-460, and are clearly of early classical tastes.²⁹

On the Gaggera hill, the area in and around the sanctuary of Demeter Malophoros was furthered modified with the addition of two other cult-places (fig. VII.3). A Hekataion, surviving on the ground only in bare outline, was built in the south-east corner of the latter sacred precinct (Gabrici 1927: 73-75; Dewailly 1992: 28-29, 146-148). The new *temenos* is essentially a small court (*ca.* 13 m. per side) entered via a passage in the east wall (fig. VII.3). In the south-west part of this court is a *naiskos*, also square in shape. Directly opposite the *naiskos* is a rectangular altar measuring 4.35 m. by 2 m.

At some point in the fifth century (Gabrici 1927: 87), a monumental propylaeum with

²⁸ Koldewey and Puchstein (1899: 127-131); Hulot and Fougères (1910: 258-262); Dinsmoor (1950: 109, 337); Gruben (1976: 284-288). For the reconstruction of the temple, see Bovio Marconi (1967), critically received by the scholarly community.

²⁹ For these metopes, see now Marconi (1994); and on the Severe Style in Sicily, see generally AA.VV. (1990) and Bonacasa (1995).

double distyle *in antis* was built next to the Hekataion, cutting the north and west walls of that *temenos* (fig. VII.3) (Gabrici 1927: 75-91; Dewailly 1992: 29; *cf.* also Dinsmoor 1950: 284-285). Just in front of the propylaeum is a circular well whose outline is made up of seven blocks. Entrance to the propylaeum was up a six-stepped staircase, through the two columns, onto a paved, roofed court area, and again through two more columns, down finally two steps on the inner facade to the sanctuary. The ancient worshipper, having passed through this entrance, would have had the monumental altar of Demeter Malophoros directly in front of his/her line of sight.

V. "Floating" Settlement Components

To round out discussion of Selinous' archaic settlement evidence, it is worth mentioning the other few monuments alluded to briefly in archaeological and literary sources.

In the early trenching carried out by the French outside the acropolis, a public building of unknown exact function came to a light north of street B1 (de la Genière & Theodorescu 1979: 390; de la Genière 1980: 1298-1299). Built of fine ashlar masonry, which survives in up to three courses, the edifice dates to the early fifth century, though its life seems to have been a short one according to the excavators, going out of use by the middle of the same century. Similar trenching north-west of the latter public building found, on the north side of street 1, yet another building of like character; it appears to belong to the end of the sixth century (de la Genière & Theodorescu 1979: 389). The third of the three monuments revealed by the French was discovered south of street 5 (de la Genière & Rougetet 1985: 291). The building, dating to the first half of the fifth century, consists of beautifully cut ashlar masonry.

Rallo's (1984: 88) explorations on the Manuzza hill uncovered (at point "H" on fig. VII.3) two walls (10 m. by 14.5 m.) of fine masonry belonging to a public building of some sort, perhaps, in her view, a portico from around the northern area of the *agora*. Herodotos (v.46.2) records the existence of a sanctuary of Zeus Agoraios as well.

Mertens (1988-89: 592), moreover, observes in general that "queste mura [sc. fortifications] sono state costruite esclusivamente con materiali edili riadoperati e provenienti da altre strutture più antiche...." Most of these reused architectural items which once formed part of public and religious buildings relate to monuments still unknown to us, awaiting discovery by future generations of archaeologists. To conclude, Selinous had several other monuments presently known only in passing references.

Further Aspects of Settlement

Settlement Process and Settlement Size

Selinous appears to have been settled in a way broadly similar to Megara Hyblaia (ch. II above): that is, within decades of the *polis*' foundation, archaeology indicates that the colonists had already claimed the area that the city would occupy at the height of its existence in the fifth century. Thus the settlement initially encompassed the acropolis, Manuzza, Marinella, and Gaggera hills. It is clear that settlement cannot have extended much beyond these limits because Selinous' necropoleis surround these areas frequented by the living.³⁰ The

³⁰ The necropoleis of Selinous are located as follows (V. Tusa 1971c; Isler 1994): to the north-north-east the Buffa necropolis; to the north that of Galera-Bagliazzo; to the north-west the Gaggera-Pipio group; to the west the Manicalunga-Timpone Nero group; and on the south-east slope of the Manuzza hill (Rallo 1976-77: 728-729; 1982). See fig. VII.1.

discovery of the Manuzza necropolis raises interesting, though at present unresolvable, questions about the settlement itself.³¹

The most baffling features of this necropolis are its period of use and topographic position. The necropolis continued to be frequented throughout Selinous' archaic and classical existence, *without* ever having been "obliterated" by the city's urban development: later votive offerings attest the continuity, though no new depositions seem, on present evidence, to have been made (Rallo 1982: 203, 215). In the mid-sixth century, the city wall enclosed the Manuzza necropolis; thus we are apparently dealing with an intra-mural necropolis, whose sanctity was observed over the centuries. Could the necropolis in question have been some sort of oikist or first settlers' place of veneration? Although the *agora* is normally where one would normally expect to find such shrines (Malkin 1987), which in Selinous' case, it must be recalled, is thought to have been situated west of the Manuzza necropolis, we may have here another kind of central topographical feature. But this hypothesis should not be pressed any further, nor need it, given the sparseness of information in our possession, mean that at all. At the very least the Manuzza necropolis adds a twist in the development of the settlement, which at present we are, unfortunately, not in a position to evaluate. Only the spade of future excavations offers the hope of clarifying the clues the Manuzza necropolis contains of this and other finer points behind Selinous' settlement process.

We are slightly better informed as to the size of Selinous. Martin (1977: 53) had

³¹ The most common form of rite in the Manuzza necropolis is cremation with a sole instance of inhumation also present (see Rallo 1982: 205). To judge solely from the excavator's silence in the matter, the original size of the necropolis is not known in sufficient detail.

stated that "...vers 580-570 c'est le site tout entier, avec plus de 200 hectares, qui fut divisé, organisé, tracé suivant un schéma de *mégalopolis*, dépassant toutes les proportions d'urbanisme connues jusqu'alors." Martin implies that these 200 hectares excluded the area taken up by the various necropoleis. Such an assertion is exaggerated, as already pointed out by Ampolo (1984a: 206), who wrote before the results of the recent spate of work on Selinous' urban development, especially Mertens' investigations of the city walls, were published.³² The reality on the ground is different, and in place of Martin's figure, a recent estimate suggests that the intra-mural area consisted of 100 hectares (this number is given on the new site plan set up at Selinous by the DAI Rom) (pl. 20). Of these estimated 100 hectares, can we get any idea of the intra-mural use of space?

The recent work by the French is especially relevant for this purpose. Broadly speaking, the intra-mural settlement of Selinous can be divided into three areas (ordered here from smallest to biggest): there are about 10 hectares south of street F (including the acropolis and both flanks in the valleys), 24-28 hectares between streets F and 6, and the rest, some 60-65 hectares, north of street 6 (encompassing the Manuzza hill and all the surrounding land down below) (fig. VII.1).

With the first of these three subdivisions, we may straightaway subtract 6 hectares (the surface area of the acropolis) from the total of 10 hectares as being non-residential, leaving 4 hectares as potential habitation. These remaining 4 hectares have witnessed very little excavation; nothing is known of how they were organised. In respect of the south sector of

³² The figure Martin offered for the size of Selinous is an example of a common scholarly habit of exaggerating the early history of Selinous as destined for greatness. We will encounter this problem elsewhere in this study (later on in this chapter, and in chs. IX and X).

South Sector

STREET	WIDTH (m.)	LENGTH (m.)	TOTAL (ha.)
N-S axis	9	400	0.36
F	6.5	600-700	0.43
6	6.5	600-700	0.43
E-5 (11 total)	each 3.6-4	each 600-700	3 (each 0.2-0.28)
			4.36

North Sector (Manuzza)

STREET	WIDTH (m.)	LENGTH (m.)	TOTAL (ha.)
<i>plateia 0</i>	8.5	400	0.34
middle transverse	6.3	300	0.19
south transverse	3.8	300	0.114
north transverse	3.8	300	0.114
N-S streets (10 total)	each 3.3	each 400	1.3 (each 0.13)
			2.1

Table VII.1: Space taken up by Streets in the North and South Sectors of Selinous.

the settlement (lying between streets F and 6), approximately 4.36 of the 24-28 hectares contained within this area may be classified as non-residential (table VII.1). Similar calculations for the explored areas of the north sector of the settlement produce a total of *ca.* 2.1 hectares as the area taken up by public ways of passage (table VII.1). We cannot do such calculations for other zones of the settlement, for they have yet to be explored, or, if at all explored, remain unpublished.

Present evidence demonstrates that just over 12 of the estimated 100 hectares for the size of Selinous consisted of public space. This leaves about 88 hectares of the settlement presently undefined as to the use of space, and it is obvious that more public buildings and streets can be expected from the remainder of the settlement (see section V above for some of these buildings). We cannot proceed by working out proportions of space use in a small area, and applying it more widely, since no areas have been explored in a sufficiently exhaustive way to do so. We need to work at a more abstract level if we are to get some idea of what overall proportion of the settlement could have been used for habitation. On the basis of the better documented example of Megara Hyblaia studied earlier (ch. II), one could hazard the guess that about half, say 50 hectares, of Selinous' intra-mural had a non-private function. Future archaeological explorations will provide more solid answers; in the meantime, however, the foregoing estimate may tentatively be advanced.

The Pattern of Public Building

The erection of monuments at Selinous followed a different pattern from Megara Hyblaia, where public buildings made their first appearance about a century after foundation (see ch. II above). At Selinous, by contrast, monuments are attested in the archaeological

STRUCTURE	DATE	SIZE (m.)	MISC.
con acroteri a spirale	late 7th	15.95 x 5.64	<i>oikos</i> structure
Temple E1 E2 E3	late 7th late 6th 460	? ? 75 x 30	-- minor work only metopes
Malophoros <i>megaron</i> 1 <i>megaron</i> 2	late 7th early 6th 550-540	n/a 8.5 x 5.65 20.2 x 9.69	altar only -- --
<i>megaron</i> (acropolis)	580	17.85 x 5.31	--
Heraion (Gaggera)	600-575	16.25 x 6.76	--
Temple Y	575-550	?	metopes?
Temple C	c. 550 (earlier version?)	71.07 x 26.62	metopes
Temple D	c. 540 (earlier version?)	56 x 24	--
<i>stoa</i>	550-525	74 x 29.3	--
Zeus Melikhios	550 on	?	cult activity only
Temple M	550-500	26.8 x 10.85	--
Temple F	520	61.83 x 24.43	metopes
Temple G	525-470 (unfinished)	50.07 x 110.12	--
Temple A	490-460	40.3 x 16.13	--
Temple O	490-460	slightly larger than preceding	--
Hekataion	5th	4.35 x 2	propylaeum built around it

Table VII.2: Monuments at archaic (and early classical) Selinous.

record by the last quarter of the seventh century (table VII.2), and, depending on the foundation-date accepted, this would place the appearance of monuments at the site in either the first or second generation. At any rate, Selinous already had an impressive array of monuments by the mid-sixth century, that is, about a century after its foundation. But how does this early building activity at Selinous fit in to the wider context of developments in Greek Sicily?

Two scholars have commented on this situation. Mertens (1990: 374) generally points out that we need to bear in mind, in discussing architectural history, the date at which a settlement was established and the building traditions that existed at the time. Bergquist 1992: (123) is more specific, observing that

...sanctuaries in very old colonies, such as Naxos and Megara Hyblaia, come to stand side by side with temene in a more recently founded sub-colony, such as Selinous, simply because of the fact that sanctuaries regarded as architectural ensembles are a fairly contemporaneous phenomenon, irrespective of whether the city was a colony of long standing or a recently founded sub-colony.

Thus we need to remember that traditions of public building had not become common at the time of Megara Hyblaia's foundation; the experience and opportunities offered by the passing of a century can make a notable difference on how we view the archaeological record (a point pursued further in ch. IX).

CHAPTER VIII:
DEMOGRAPHY

The Size of Selinous' Population

Previous Discussions

Interest in the size of Selinous' population has attracted considerably more attention than is the case with Megara Hyblaia. Diodoros, in his account of the downfall of Selinous in 409/8 at the hands of Carthage (esp. xiii.57.6, 58.3), records various figures, including overall casualties in battle, from which population estimates have been made. Selinous' reputation has also drawn scholars to speculate on the size of the community. These two conditions, therefore, have encouraged the study of Selinous' population size. Diodoros' testimony, which has formed the basis of modern discussion, will be looked at first.

At xiii.44.3 Diodoros begins his long account of the demise of Selinous by saying: οἱ δὲ Σελινούντιοι κατ' ἐκείνους τοὺς χρόνους εὐδαιμονοῦντες καὶ τῆς πόλεως αὐτοῖς πολυανδρούσης.¹ In an important study, Gallo (1980) has thrown light on the two antithetical poles--*polyandria* being the positive and *oliganthropia* the negative--which form a common theme, a topos, in the writings of ancient authors (*cf.* also Alcock 1993: 25-27). The term *polyandria*, translatable simply as "populous", contains finer nuances revealed by Gallo: its meaning seems to be often restricted to the male-only military element of the population (Gallo 1980: 1237). Thus, if Selinous was prosperous, as is evident even today, the assumption, then, is that it must have also been populous. This sort of coupling, wherein one condition could not have obtained without the second, is the stock rhetorical device exposed by Gallo. It does not follow, therefore, that Selinous was a heavily populated city, but that its prosperity came to be associated

¹ "In those days [410/9 BC] the Selinountines were prosperous and their city populous."

with a literary cliché, which had more to do with effective writing practices of the day than ancient reality.

The two main Diodoran passages (xiii.57.6; 58.3) of concern here need to be read against this background. In the first passage, it is reported that 16,000 were killed and 5,000 taken prisoner by the Carthaginians (the generic description of *σώματα*, as opposed to soldiers, is used when speaking of these casualties). In the second passage, another 2,600 managed to escape to nearby Akragas, where they were supported at public expense. A further unknown number of Selinous' inhabitants perished when their homes were put to the torch by the invaders (xiii.57.2), and 1,000 soldiers (*στρατιωτῶν*) were also killed in a battle against Segesta in the year before Selinous' downfall (xiii.44.4). When added up what do these numbers actually represent? The possible interpretations can be illustrated by reviewing modern opinions.

Schubring (1865: 24) took these passages to mean 24,000-30,000 men of arm-bearing age. Cavallari (1872: 8) believed that they referred to an overall population of 40,000 people, assigning 15,000 to the acropolis and 25,000 to the Manuzza. Holm (1870-98: ii.422) adds another 20,000 people to Cavallari's estimate to take into account the areas omitted by him. Beloch (1886: 285; 1895: 66-67) advanced two population estimates: in 1886 he put forth a figure of 32,000-33,000 people as Selinous' overall demographic size, but in 1895 this was lowered to 20,000-25,000 in light of criticisms made by Cavallari. Hulot and Fougères (1910: 153 and n. 1) estimated that 30,000-40,000 people dwelt in the city and its suburbs, with as many as 100,000-150,000 occupying the whole territory.²

² The basis for the territorial estimates is not given, but it may be based by taking Diodoros' number to mean only men of military age multiplied by four to five dependents.

Many of the remaining population estimates have followed Beloch,³ save Coarelli and Torelli (1984: 74), who advance an archaeological calculation, which is made to fit Diodoros' testimony. Coarelli and Torelli first claim that about 100,000 tombs are known from Selinous. Then Diodoros' population figures are interpreted as meaning that there were 23,600 male citizens who were war casualties and refugees. The latter number (of male citizens) is multiplied by four, representing the other members of the household under the control of each male citizen, which produces, with the inclusion of slaves and metics thought to have existed, a total of roughly 100,000 people as the population of Selinous. This is remarkably similar to the number of tombs Coarelli and Torelli claim, and a one-to-one relationship is envisaged: the tomb of each and every of Selinous' inhabitants survives.⁴

Previous attempts, therefore, to estimate the population of Selinous have for the

³ *E.g.*, Pace (1935: i.462-468; 1958: i.501-507); Milone (1960: 178-185). Two other scholars modify somewhat the Belochian position. Faure (1978: 308) claims that by the mid-sixth century Selinous perhaps had a population of 20,000 which thus may, in turn, account for the establishment of Herakleia Minoa (overpopulation is clearly implied as the underlying cause for the foundation of this sub-colony). The same population figure is employed by Asheri (1980: 130), who applies it only to the Manuzza plateau. Cf. also Gallo (1989) on Beloch's influence in the study of ancient Sicilian demography.

⁴ The handling of the archaeology raises problems. Aside from the obstacles in using burial evidence for population estimates (see ch. III for discussion), there are only 5,000 or so tombs known from Selinous and even these have yet to be properly published (see ch. IX). The total of 100,000 tombs Coarelli and Torelli mention seems to be derived from vague estimates made in the 1960s when extensive excavations were conducted in the necropoleis of Selinous, but the figure is not in any way based on hard empirical information (*cf.* Isler 1994: 166). If we follow through the argument using Coarelli and Torelli's own data, a population of 100,000 people for Selinous means that we could expect the number of deaths, and perhaps just as many tombs, to have been something to the order of 720,000. I arrived at this figure by using a formula already encountered in chapter III: $p=1,000/(dt/n)$, where here $p=100,000$ people as the population of Selinous; $d=30$ years per generation; $t=240$ years as the life of archaic and classical Selinous; and n , therefore, equals 720,000 deaths. Thus Coarelli and Torelli's attempt to correlate archaeological and literary sources is misguided.

most part adhered closely to Diodoros, rarely venturing beyond him: the numbers he cites have formed the basis of the various modern estimates. Some scholars (*e.g.*, Beloch, Cavallari, and Holm) have interpreted the Diodoran figures as the total population of Selinous, while others (*e.g.*, Schubring, Hulot and Fougères, and Coarelli and Torelli) believe that Diodoros records only the total number of fighting men, a number which needs to be multiplied four or five times to arrive at the overall level of population. These modern scholars have forgotten the inflated military strengths attributed by Ephoros and Timaios, whom Diodoros (xiii.54.5) cites, to Hannibal's invading army.⁵ This is an important overlooked aspect, for at a larger scale it forms part of the tone of gravity adopted by Diodoros throughout these chapters. The rhetorical reasoning, perhaps connected with the *topos* exposed by Gallo (see above), may have been that a populous city like Selinous required a correspondingly populous army with whom to do battle. Whatever the reason(s), Diodoros' population levels should be approached with caution, something which most modern scholars have failed to do.

The only exception to this trend is Di Vita (1984b: 79), who says that "*nel suo pieno splendore Selinunte-città non dovette mai contare più di 10-12000 abitanti.*" This estimate is based on archaeological considerations, namely the size of the settlement of Selinous multiplied by modern people per hectare densities (recorded for the Ortygia quarter of modern Syracuse in 1909). Unlike earlier attempts, Di Vita's is laudable in that it has focused attention on the settlement, instead of on Diodoros' rhetoric. In what follows, the aim is to continue this practice, taking into account recent developments in Selinous' archaeology unavailable to Di Vita.

⁵ Ephoros records 200,000 infantry and 4,000 cavalry; Timaios simply puts the strength of Hannibal's army at around 100,000 men.

The Present Attempt

Relating population to area is aided by Mertens' (1993) recent attempt at revealing plot sizes (οἰκόπεδα) in the south sector of the settlement. In one of the blocks (surrounding streets A and B) of the archaic town plan, Mertens discovered that the block's partition wall, which divided it into two rows of houses, and substantial remains of one of the houses, which had been incorporated into the later hellenistic fortification system. This allowed him to trace the size of the plot of land on which the house once stood, namely a surface area of 220 m.² (Mertens 1993: 133-134). Similar information retrieved from the excavation of building FF1 nearby suggests that plot size at Selinous fluctuated between 200-300 m.² (Mertens 1993: 136). Taking the latter range as the standard, Mertens (1993: 136) attempts a very "provvisorio ed ipotetico" argument whereby he advances the view that there were 900 such plots in the south sector of the ancient city.

Obvious possible objections can be raised with Mertens' calculations, as we have already seen with the better documented case of Megara Hyblaia (chs. II-IV above). First, all plots need not have been of such uniform size. Second, it is also unlikely that every plot was inhabited. Third, that every plot was individually owned is also open to doubt: wealthier families may have owned more than one plot. For the sake of argument, I will put all objections aside, and follow through on the potential ramifications of Mertens' observations for estimating population.

If we divide the range of plot sizes (200-300 m.²) into the estimated 50 hectares of intra-mural domestic settlement arrived at in the preceding chapter, this produces a grand total of 1,666 to 2,500 plots for the whole site. If it is assumed that each plot belonged to a household of four people, Selinous' *polis* centre may once have been home

to, say, 6,664 to 10,000 inhabitants.⁶ Such estimates do not take into account the development of population at Selinous; they are global estimates forced upon us by the nature of the archaeological record. As matters stand, it is impossible to recapture a more detailed picture.

Extra-mural Population

Little can at the moment be said about Selinous' extra-mural population, since the territory has yet to receive serious archaeological attention. A few statements about population density outside the *polis* centre may nevertheless be made on the basis of other forms of evidence and probability.

This is not the place to get involved in discussing Selinous' territory (for full discussion, see ch. X below), but it seems safe to say that there were citizens living outside the main settlement at various times during Selinous' (archaic/classical) existence. For instance, the ancient sources mention that Selinous established a sub-colony, Herakleia Minoa, some 30 km. west of Akragas in the mid-sixth century; such an outpost clearly indicates that people lived in the territory. Other such satellite sites are known to have existed on the basis of written and archaeological evidence. Unfortunately, the complete absence of settlement evidence from these extra-mural sites precludes attempts to estimate population. It is clear, therefore, that not all of Selinous' population resided in the *polis* centre; thus the above population estimate is but part of the picture.

⁶ This would work out to 133–200 people per hectare, well within the range often encountered in classical cities (see ch. III). These figures are not intended to substantiate, in circular fashion, the correctness of the present population estimates. For different results would be obtained simply by adding one or two more members to each household.

Demographic Structure and Development

Evidence for the structure and development of Selinous' population is non-existent, as is generally the case with such matters elsewhere in Sicily (see ch. III above). Written sources have not survived, and archaeologists have not shown any serious interest in demographic matters.⁷ Therefore, for the time being at least, the only way to proceed is by employing a modern demographic model, and for purposes of comparison I will use the model selected earlier for Megara Hyblaia, namely the Princeton Model West, Males, mortality level 4, with an average life expectancy at birth of 25.26 years and an annual growth rate of 0.5%. On this model the structure and development of Selinous' population may have resembled something along the following lines.

Of the 6,664-10,000 inhabitants estimated for the *polis* centre, 46%, or 3,066-4,600 people, would have been under the age of nineteen, and about 5%, or 333-500 people, above the age of sixty. The remaining 51%, or 3,399-5,100 people, would have been between twenty and fifty-nine years of age. Of this latter half, roughly the first 10%, or 340-510 people, would have belonged to the 20-24 age-group; each of the successive age-groups (25-29 to 55-59) would have consisted of 1% fewer people than its previous age-group. If we assume that the sex ratio remained unchanged, and thus slightly in favour of males (see ch. III), then a little more than half of the total population of Selinous was made up of males. On the basis of this sex ratio, men available for military service would have formed just over half of the inhabitants between the ages of 19 and 59, say, 1,767-2,652 individuals.

⁷ Nor can we expect the publication of the 5,000 tombs excavated in the 1960s to produce this sorely needed form of information; note Isler (1994: 165): "Les restes d'ossements n'ayant malheureusement pas été conservés, des études anthropologiques ne sont pas possibles, ce qui signifie évidemment qu'une partie importante des données est aujourd'hui perdue."

To maintain the foregoing demographic structure would have required demographic regeneration involving the birth of six children ever-born per female (a gross reproduction rate 2.807), for one of three newborns would have passed away in the first year of life. About 50% of all children born lived for five years or less. The survivors could expect forty more years of life, though each age-group (from 5-9 onward) would have comprised, owing to death, just under 1% fewer individuals than it originally started; mortality increased with age.

Selinous' population may have had these demographic characteristics.

CHAPTER IX:
SOCIETY AND POLITICS

Introduction

The sources available for reconstructing Selinous' socio-political history are unbalanced: "The internal history of Selinous...is considerably more obscure than its foreign relations" (Jameson *et al.* 1993: 123). The sources for the foreign relations have changed little since Dunbabin (1948), or indeed since Freeman (1891-94). The events in question represent only a few episodes, and no complete narrative can be built on them. Even less is known of Selinous' internal history. Written sources are scarce, and the archaeology is under-developed. Settlement excavations have concentrated primarily on civic architecture and on urban development, whilst habitation areas have been almost completely neglected (compare ch. VII). Selinous' necropoleis were extensively explored in the 1960s, when almost 5,000 tombs were excavated (V. Tusa 1971c). These investigations, together with more recent ones in the settlement, have not been properly published, yet it is work of this nature that can make up for the dearth of written evidence concerning Selinous' internal history.¹

This chapter, divided into two parts, aims to use present evidence to examine afresh Selinous' socio-political history. In part one, the intention is to piece together the existing written and archaeological sources. Part two follows with discussion of Selinous' monumental temples as evidence of socio-political and economic history.

¹ Plans are now well under way for Zurich University to publish about three-quarters of the 5,000 tombs (Isler 1994). No plans for the settlement excavations have been announced. The great potential of settlement and funerary archaeology at Selinous is revealed by the tantalising hints made by various excavators: a difference in masonry style is reported between the acropolis and Manuzza (Martin 1983: 36; Mertens 1993: 136-137), and differences between the Gaggera and Timpone Nero necropoleis have also been raised (Isler 1994: 167-168). Such differences, with their possible social implications, should naturally be expected, but only publication of the material in question can help to illuminate the darkness that still dominates much of Selinous' internal history.

Society and politics

The Seventh Century

The literary evidence gives accounts of Selinous' foundation but nothing on the early development of the colony; until recently there was little seventh-century archaeological evidence. The archaeology allows something to be said of the relationship between colonists and natives and of the early settlement.

Traditional claims (*e.g.*, Dunbabin 1948: 43 n. 4) that the Megarian colonists selected a site uninhabited at the time of colonisation have been shattered by Rallo's excavations on the Manuzza plateau. Here, in an excavated area extending for 450 m.², Rallo found the remains of a native settlement above the sterile layer (the latter is labelled I,1 by the excavator) (Rallo 1976-77: 722, 724). Rallo designates the first stratum of human activity (I,2) as pre-Greek; this stratum contains purely indigenous material dating to the eighth and seventh centuries, including stone foundations of two (apsidal?) huts, as well as plentiful evidence of a domestic nature to accompany these structure, such as a round millstone, pyramidal weights, and a hearth (Rallo 1976-77: 722-723). The next archaeological level (I,3) is described as a "strato indigeno misto" with Greek pottery appearing alongside the native material assemblage; above the latter layer is one (II,1) consisting solely of Greek occupation, which dates to roughly the beginning of the last quarter of the seventh century (Rallo 1976-77: 723).

Native material has been found at two other locations at Selinous. In the earlier part of this century, excavations in the sanctuary of Demeter Malophoros brought to light five native sherds, of which only two were briefly mentioned in the final report (Gabrici 1927: 344). S. Tusa (1982) published the remaining three sherds, along with a re-examination of the previous two. Gabrici left very few details of the find circumstances

of these sherds, and in consequence their exact stratigraphic position and date, because of the lack of association with Greek imported pottery, are unknown (S. Tusa 1982: 111-112). S. Tusa (1982: 111, 116) hypothesises, however, that all the sherds belong to the "pre-megaron" stratum, taking the material as evidence for pre-Greek native settlement at Selinous. Despite the uncertain nature of the material, S. Tusa (1982: 117), furthermore, believes that the sherds betoken "coesistenza indolore" between natives and newcomers.² Two fragmentary native cups were found in French excavations on the acropolis. Apart from the fact that they were found in the lowest stratum, they were found in isolation, unassociated with any features that could suggest a more specific context (Fourmont 1981: 8-9). Very little, therefore, may be made of these cups. At best the latter two groups of native sherds indicate a presence of some sort in the west and central sectors of what later became Greek Selinous, and, together with the clearer and more abundant evidence from the Manuzza, it has been plausibly suggested that there existed a pre-Greek native village consisting of several nuclei at Selinous (Parisi Presicce 1984: 27).

From the foregoing review of native material, only the finds from the Manuzza plateau can say anything about the early relations between natives and Greeks; in particular, the transition between strata I,3 and II,1 is of crucial importance in this regard.

² The fact remains that not much can securely be built on these five sherds. The sanctuary of Demeter Malophoros is sometimes seen as a centre of ethno-cultural mediation (see Riotto 1985: 34-35; de Polignac 1995: 111), and the discovery of native sherds hereabouts has only encouraged this tendency (e.g., S. Tusa's efforts). But the foundations of any such attempt are very shaky: Riotto (1985: 25) begins his study by pointing out that, in comparison with what is actually known of the sanctuary's history, too many far-reaching discussions have taken place. As has recently been stressed, "...our failure to discuss possible native Sicilian elements in the cults of the Malophoros sanctuary is no oversight: we have found no grounds on which to do so, such is the paucity of information on the indigenous religion of the island" (Jameson *et al.* 1993: 140 n. 8).

According to Rallo (1976-77: 729), Greek occupation seems to have incorporated ("inglobata") in a non-violent way the native settlement. Although not mentioned by Rallo, the tradition of peaceful Greek-native relations at Megara Hyblaia (see chs. I and IV above) may have loomed large in the interpretation of the archaeological record. Certainly Rallo's reconstruction of events has influenced opinions about early ethnic relations at the site, and in recent times the notion that the Selinountines got on peacefully with the natives in the initial stages of their colonising venture has been widely repeated.³ How legitimate is such historical reconstruction?

On the basis of the information available, could other scenarios be built up around the Manuzza finds? The limited extent of excavation may conceal the reality. It was only recently that the native settlement was uncovered, and signs of destruction may remain to be found.⁴ It is equally possible that, after peaceful beginnings, relations went sour, forcing the natives to abandon their homes, in what appears to us from the archaeological perspective as co-existence. We should not be too hasty in drawing far-reaching conclusions from equivocal evidence. It seems safe to suggest, therefore, that the literary tradition has somewhat determined matters; recent archaeological work in the vicinity of Selinous reveals the potential complexities of the proto-colonial situation.

A native settlement contemporary with that at Selinous was recently discovered at

³ Graham (1982b: 168); Martin (1983: 34); Pugliese Carratelli in V. Tusa (1983: 19); Dominguez (1989: 373); Parisi Presicce (1984: 27) is more cautious.

⁴ Rallo has conducted further excavations on the Manuzza plateau since discovering the native settlement, though no more traces of it have been found. However, these excavations focused primarily upon retrieving the later urban plan; trenching was carried out in selected areas (see ch. VII). In other words, it is quite likely that the earth may still conceal surprises. Note also Greco (1992: 18), who regards the superimposition of Greek settlement at Italian Kyme on the earlier native one--even without traces of destruction--as a sign of a violent encounter.

nearby Montagnoli (Castellana 1990: 333).⁵ A monumental hut, measuring *ca.* 10.54 m. in diameter, was discovered in two seasons of excavation. The hut survives in good enough condition to permit its reconstruction on paper (Castellana 1990: 328-330). This structure, originally constructed sometime in the eighth century, was used until the mid-seventh century (Castellana 1990: 326-328). Another monumental hut, built almost touching the first, came to light in 1991, in the third season excavation. Certain features of this second hut, such as votives placed on benches in the interior and a votive pit found nearby, suggest that both huts may have formed part of a religious complex.

Though Castellana (1990: 327) fails to give exact details, he maintains that the huts were violently destroyed by fire, envisaging the following scenario: "...in concomitanza con la fondazione di Selinunte, se si accetta la cronologia diodorea, forse dagli stessi megaresi in cerca di una propria area vitale" (Castellana 1990: 332). The validity of this hypothesis requires further confirmation, but such new information doubtless has a knock-on effect on the interpretation given to the native settlement remains on the Manuzza, suggesting at least that the first episode in Selinous' socio-political history of which we can begin to talk was not perhaps not as peaceful as some have thought.

Virtually nothing is known of other socio-political developments. By analogy with Megara Hyblaia (see ch. IV) we could hypothesise that an oligarchy also ruled at early Selinous, though no evidence can be adduced to support this hypothesis. The only seventh-century archaeological evidence from Selinous itself consists of one, possibly two, buildings and an altar dedicated to Demeter Malophoros; these structures are of modest

⁵ Montagnoli is located four km. north of the Belice river-mouth (*cf.* *BTCGI* x.235-236); see fig. VI.1.

size and scope.⁶ We cannot judge fairly Selinous' accomplishments at this time by these few structures. Future archaeological explorations offer the only hope of bringing to light new evidence.

The Sixth Century

Written and archaeological data are fuller for the sixth century, although there is still much that remains unknown. The extant evidence centres around Selinous' expansionistic ambitions, wars with neighbours, the rise of tyranny, and building programmes.

For the time being it must remain only a possibility that Selinous' relations with the natives may have been of a violent nature in the seventh century. Early sixth-century events indicate hostilities between these two groups. The scene is set by a dedication to Herakles found about three km. south of Poggioreale (in *località* Mandra di Mezzo) in the upper Belice Valley (fig. VI.1). The inscription, written boustrophedon, reads as follows:⁷

Τὸ ἡ[ε]ρακλέος ἡιάρὸν ἐμὶ, ἡῖ- ←
 ρξ[ε] δέ με Ἀριστύλο[ς] ἡ]ο ἡ- →
 ἐρ[μ]ία ἡυιός.

I am sacred to Herakles; Aristylos, son of Hermias, made me.

There is little doubt that someone from Selinous was responsible for setting up this dedication: the letter-forms are characteristically Selinountine, and the dialect and

⁶ The one certain building of this period is the "tempietto con acroteri a spirale" and the other perhaps temple E1 (see table VII.2).

⁷ *Editio princeps*: Piraino (1959) (cf. *SEG* xix.615). The inscription has also been reproduced in various syntheses, which add nothing to the first edition (see, for instance, Arena 1989: 39, no. 35; Dubois 1989: 84–85, no. 84).

onomastics exhibit features which are clearly Megarian (Piraino 1959: 161-163).⁸ The letter-forms and archaeological context place the inscription in the first half of the sixth century.⁹ This dedication once formed part of an area sacred to Herakles.¹⁰ Piraino (1959: 164) speculates that the precinct may have comprised an open altar or sanctuary, but nothing is known of any structure. From the historical viewpoint, the dedication is important in that it testifies to the penetration of people from Selinous deep into the hinterland in the earlier sixth century.

The *terminus ante quem* Piraino used to date the Herakles dedication is usually known as the Pentathlos affair. Diodoros (v.9.1-5) contains the most complete narrative of this episode. During the fiftieth Olympiad (580-576 BC), men of Knidos and Rhodes, having received harsh treatment from the kings of Asia, decided to found a colony. Pentathlos was chosen as leader, and

οἱ δ' οὖν περὶ τὸν Πένταθλον πλεύσαντες τῆς
Σικελίας εἰς τοὺς κατὰ τὸ Λιλύβαιον τόπους

⁸ It is uncertain why Malkin (1994b: 213) maintains the following about this inscription: "The modern debate over its significance captures, I think, the essence of the problem of Herakles' presence in western Sicily. Manni-Piraino...regards it as Greek, whereas de la Genière suggests that it was an Elymian dedication influenced by the Greeks of Selinous...." This debate does not exist. Malkin cites de la Genière (1978a), though without giving the page reference (q.v., p. 41). However, de la Genière does not express the view Malkin attributed to her. Cf. also de la Genière (1978b: 268 n. 82), where the inscription is again accepted as Selinountine.

⁹ Piraino (1959: 160-161). "L'iscrizione è venuta alla luce durante lavori di scasso profondo, perchè casualmente agganciata dalla machina usata per lo scasso medesimo" (Piraino 1959: 159). The inscription was found re-used as the covering of a tomb of Orsi's Siculan III period, which ends in the mid-sixth century (Dunbabin 1948: 2 n. 1; Bernabò Brea 1957: 19; Pace 1958: 160 with n. 1). Piraino (1959: 161, 171) connects the inscription with a more precise episode in Selinous' history, namely the Pentathlos affair, which took place around 580-576 (to be discussed presently). For arguments against thinking that the inscription had wandered far from where it was originally erected, see Piraino (1959: 163-164).

¹⁰ On the Herakles cult in frontier areas, see de Polignac (1995: 93, 116-117).

κατέλαβον Ἐγεσταίους καὶ Σελινουντίους
 διαπολεμοῦντας πρὸς ἀλλήλους. πεισθέντες
 δὲ τοῖς Σελινουντίοις συμμαχεῖν πολλοὺς
 ἀπέβαλον κατὰ τὴν μάχην, ἐν οἷς ἦν καὶ αὐτὸς
 ὁ Πένταθλος. διόπερ οἱ περιλειφθέντες, ἐπειδὴ
 κατεπολεμήθησαν οἱ Σελινούντιοι, διέγνωσαν
 ἀπιέναι πάλιν ἐπ' οἴκου.

They then sailed in the company of Pentathlos to the regions around Lilybaion in Sicily and found the Segestans and Selinountines at war. They were persuaded by the Selinountines to take their side in battle, losing many men in the battle, among whom was Pentathlos himself. As a result, the survivors decided to return home again, since the Selinountines had been defeated. (Diodoros v.9.2-3)

The story continues that the survivors, sailing the Tyrrhenian Sea, landed at the Lipari islands, whereupon they founded the colony they had originally set out to establish.¹¹ Three observations can be made about the portion of the story that is of interest here.

First, Lilybaion (modern Marsala) and environs seem to have been devoid of any substantial human settlement in Pentathlos' time (*cf.* *BTCGI* ix.42-76). Lilybaion itself was settled only in the early fourth century by the survivors of Motya after it was destroyed by Dionysios I (Diodoros xiv.47-53). Therefore, the niche into which Pentathlos wanted to fit may be regarded as real. Second, the war between Segesta and Selinous is also to be believed because the Herakles dedication from Poggioreale suggests Selinountine expansion in the early sixth century. Although Segesta is not necessarily near Poggioreale, and the Diodoran passage says nothing on the causes of the war, it is nevertheless not unreasonable to entertain the possibility that the cause of the war may have been due, in part at least, to tensions derived from territorial expansion. Third, Pausanias' (x.11.3) story about Pentathlos is more condensed than Diodoros', but

¹¹ This part of the episode is not of concern here; see Merante (1967).

preserves one notable detail, namely that Phoenicians are named as co-combatants on Segesta's side (ὕπὸ Ἑλύμων καὶ Φοινίκων).¹² The validity of this detail has been generally accepted by modern scholars not only because Pausanias explicitly cites the Syracusan historian Antiokhos (*FGrH* 555 F1),¹³ but also because the Elymians and Phoenicians were often allied in antiquity (see ch. VI). To which of the Φοινίκων is Pausanias referring? The Phoenicians of Motya are the likeliest candidates, since they would have been most threatened by a Greek colony in their immediate vicinity.¹⁴

The Poggioreale Herakles dedication and the war with Segesta suggest that Selinous aimed to extend its territorial possessions in the earlier sixth century. The acquisition of a resource base allowed the Selinountines to prosper; this condition finds some reflection in the *polis* centre. A grid plan was imposed on the settlement in 580-570 (ch. VII). This could have had something to do with demographic growth and the organisation of society, factors which may help to explain such a development.¹⁵ Four

¹² Bunnens (1979: 306) has used the tombstone of Aristogeitos of Selinous as proof that the Phoenicians sided with the Segestans. This inscription dates to the mid-sixth century (discussed fully below), and cannot be legitimately used for Bunnens' purpose. An early sixth-century common burial ground has been found on the Gaggera hill, which Kustermann Graf (1991: 104, 122-123) interprets as a polyandrium. This discovery fits in well with the tenor of the period. Note, however, Jameson *et al.* (1993: 60-61 n. 3), who suggest instead that the dead could have been the victims of *stasis*.

¹³ The source is thus viewed as reliable on Sicilian matters. Pausanias describes the location of Pentathlos' colony as being on Cape Pakhynos, which is usually placed in south-east Sicily. Most commentators have simply emended this to Cape Lilybaion, for it is very unlikely that the events of the Pentathlos affair could have occurred in that part of Sicily. However, Nenci (1988) has explained the geographical "error" in the periegete's text by proposing that Antiokhos of Syracuse actually preserves a geographic situation when the toponyms Cape Pakhynos and Cape Lilybaion referred to one and the same region of western Sicily.

¹⁴ Hans (1983: 6) singles out Motya, and Dunbabin (1948: 328, 332) implies the same.

¹⁵ Parisi Presicce (1984: 126) also posits population-growth at this time, citing as support the foundation of Herakleia Minoa (q.v., ch. X and below). However, the foundation of this and other

new buildings also came into being (table VII.2). In the early sixth century the Malophoros sanctuary received its first stone structure, of modest size (8.5 m. by 5.65 m.). Sometime in the first quarter of the century a Heraion, measuring 16.25 m. by 6.76 m., was also built on this same hillside. Of dimensions similar to the latter is the *megaron* built on the acropolis around 580, and to the second quarter of the century belongs temple Y, which also seems to have been originally located on the acropolis.¹⁶ Selinous, therefore, began to take shape physically in the first half of the sixth century: clearly the *polis* prospered at this time. According to Parisi Presicce (1984: 127), "Singolare è... lo sviluppo monumentale di Selinunte, che, per la precocità nell'uso del materiale lapideo e per la qualità e quantità delle sue imprese edilizie, non trova riscontro in altre colonie greche." The implication of this statement is that, from the beginning, the scope and scale of Selinountine building practices are unparalleled. This is only partly true, however. Selinous' monuments before the mid-sixth century are comparable to, say, Megara Hyblaia's (see ch. II).¹⁷ We must not exaggerate the early prosperity of Selinous (so Østby 1995: 84) by allowing later developments to colour reconstructions of earlier ones.

Selinountine outposts should be connected, rather, with territorial control.

¹⁶ It is interesting to note the Gaggera monuments may have been "aimed" at the Phoenicians and Elymians, with whom hostilities were occurring at about the same time. For this concept of "challenging" neighbours, see de Polignac (1995: 103-104). As Akragas developed, we find Selinous' eastern monumental façade receiving similar investment (see below).

¹⁷ Compare Plommer (1979: 290): "This book [sc. *MH i*] takes the view that the Megarians were at their liveliest in the mid-seventh century, just before a large number left to found Selinus, and that the sixth century was one of stagnation. However, the seventh-century temples round the *agora* in Megara...compare in plan very favourably with the earliest *megara* known at Selinus; while Orsi's temple at Megara, unjustly poohpoohed by Dinsmoor, seems to have had good proportions for a Sicilian temple, was suitably large (41.4 by 17.55 m) and, to judge from its revetments, contemporary with Apollo, the oldest temple in Syracuse."

Further unrest occurred in western Sicily around the mid-sixth century.¹⁸

According to Justin (xviii.7.1-3):

Itaque aversis tanto scelere numinibus, cum in Sicilia diu feliciter dimicassent, translato in Sardiniam bello amissa maiore exercitus parte gravi proelio victi sunt; propter quod ducem suum Malchum cuius auspiciis et Siciliae partem domuerant et adversus Afros magnas res gesserant, cum parte exercitus, quae superfuerat, exulare iusserunt.

Therefore, as the gods were displeased with such great wickedness, after they had fought successfully for a long time in Sicily and transferred the war to Sardinia, they were defeated in a great battle, losing the greater part of their army. On account of this, they sent into exile the general Malchus, under whose command they had conquered a portion of Sicily and carried out great exploits against the Africans, with what remained of his army.

There is nothing helpful in this passage on which a chronological peg can be fixed.¹⁹ In this regard the early fifth-century AD writer Orosius (iv.6) records an important detail: "haec temporibus Cyri Persarum regis gesta sunt" ("these events took place at the time Kyros was king of Persia"), that is, between 559 and 530 BC. Dunbabin (1948: 333) has challenged the ancient chronology, suggesting instead that Malchus should be dated to before the fall of Tyre in 573. This view is based on another incident connected with Malchus. Elsewhere in Justin we learn that the general's soldiers protested the sentence of exile meted out to them, whereupon they returned to Carthage and laid siege to the

¹⁸ This unrest is reflected in the archaeology of western Sicily (cf. Anello 1990-91: 182-183). Fortifications were built in the mid-sixth century at Motya, Poggioreale, and Selinous; at other sites (Panormos, Eryx, Entella, and Akragas) the fortifications can only be broadly dated to the sixth century (see chs. VI-VII; for Akragas: De Miro 1992: 155; T. van Compernelle 1992: 13).

¹⁹ The manuscripts of Justin contain Mazeus, which is usually converted into Malchus (Freeman 1891-94: i.297 n. 2; Bunnens 1979: 288-289). Malchus, in any case, is not a real name, but a title based on the Semetic root *mlk*, meaning "King". The historical authenticity of Malchus has sometimes been questioned; however, there is no good reason to do so (Huss 1988).

place.

Interea Karthalo, Malchi exulum ducis filius, cum praeter castra patris a Tyro, quo decimam Herculis ferre ex praeda Siciliensi, quam pater eius ceperat, a Karthaginensibus missus fuerat

Meanwhile Karthalo, son of Malchus, leader of the exiles, came to his father's camp from Tyre, where he had been sent by the Carthaginians to carry one-tenth of the Sicilian plunder, which his father had taken, for Hercules. (Justin xviii.7.7)

Dunbabin (1948: 333) believes that this passage can be construed to mean that

This [*sc.* dedication] is possibly before the capture of Tyre by Nebuchadrezzar in 573: Tyre lost a good deal of her prestige after this capture, and though relations between the Phoenicians of west and east were still kept up, Carthage came more completely to hold the position of supremacy among the western Phoenicians.

Such an interpretation has stirred up a tide of opposition, which focuses on the question of filial ties with the motherland. These are matters about which little is really known; oddly, what little evidence there is has never, it would seem, been brought to bear by Dunbabin's critics.

It first needs to be remembered that, although after 573 BC Tyre became the impoverished heir of a brilliant Phoenician heritage, life did in fact continue there (Jidejian 1969: ch. 5; Katzenstein 1973: 337-347). More importantly, Carthage continued to send tithes similar to the one brought by Karthalo to Tyre *long* after its capture by Nebuchadnezzar.²⁰ As Tyre seems to have maintained some prestige, enough at least for

²⁰ Arrian (ii.24.5); Quintus Curtius Rufius (iv.2.10); Diodoros (xx.14.1-2); and Polybios (xxxi.12.11-12). In Arrian and Quintus Curtius Rufius we read that among the prisoners taken by Alexander the Great at Tyre there were Carthaginian envoys who had come to the city to dedicate to Herakles. The Diodoran passage refers to events of 310 BC, when the Carthaginians, who had admittedly let the customary practice of dedicating at Tyre elapse, made an offering to Herakles. Lastly, Polybios preserves the story that Demetrios I Soter fled in a

a powerful Carthage in the fourth and third centuries, Dunbabin's arguments cannot stand. The ancient chronology, however unreliable it may seem, should be given pride of place, and this is what modern scholars have in the main done, though with varying degrees of confidence.²¹

What was the purpose of Malchus' expedition to Sicily? It has been thought that Malchus was dispatched by Carthage to affirm, now that Tyre had fallen, its supremacy over the western Phoenician colonies (Von Stauffenberg 1963: 24-25; Asheri 1988b: 751), though this seems a strange choice in view of Karthalo's dedication at Tyre (Freeman 1891-94: i.298; Dunbabin 1948: 333). An answer to this question will be attempted shortly only after some other matters have been considered.

Polyainos (i.28.2) records the appearance of tyranny at Selinous, an event which may date to the third quarter of this century (date argued below):

Σελινούντιοι Καρχηδονίοις παραταξάμενοι, πολλῶν πεσόντων καὶ ἀτάφων κειμένων καὶ τῶν πολεμίων ἐπικειμένων, θάψαι τοὺς νεκροὺς οὐ θαρροῦντες, οὐ μὴν οὐδὲ ἀτάφους περιορᾶν ὑπομένοντες ἐβουλεύοντο τί χρὴ πράττειν. Θήρων ὑπέσχετο, εἰ λάβοι τριακοσίους οἰκέτας τοὺς τεμείν τὴν ὕλην δυνησομένους, αὐτὸς ἂν σὺν αὐτοῖς προελθὼν καὶ τὰ σώματα καῦσαι καὶ πολυάνδριον αὐτῶν ἐγείραι· εἰ δὲ οἱ πολέμιοι κρατήσειαν αὐτῶν, οὐδὲν μέγα κινδυνεύσθαι τῇ πόλει, ἐὰν ἕνα πολίτην ἀπολέσῃ καὶ τιμὴν ἀνδραπόδων τριακοσίων. Ἐπήνεσαν οἱ Σελινούτιοι τὴν γνώμην, καὶ αὐτῷ συνεχώρησαν οὓς βούλοιτο οἰκέτας αἰρεῖσθαι. Ὁ δὲ τοὺς εὐρώστους καὶ ἀκμάζοντας ἐπιλεξάμενος ἐξήγαγε, δρέπανα καὶ πελέκεις καὶ ἀξίνας ἔχοντας, ὥς τεμοῦντας

Carthaginian ship, which had come with a tithe to Tyre. Cf. Katzenstein (1973: 337 with n. 223) and Bunnens (1979: 282-290).

²¹ E.g., Freeman (1891-94: i.297, 540); Merante (1970: 99-102); Hans (1983: 7-8); Gras et al. (1989: 228-229).

τὴν ὕλην εἰς νεκρῶν τοσούτων. Ἐπεὶ δὲ ἐξῆλθον, πείσας αὐτοὺς Θήρων ἐπιθέσθαι τοῖς δεσπόταις, βαθείας ἐσπέρας ἐπανῆλθεν εἰς τὴν πόλιν. Οἱ δὲ τῶν τειχῶν φύλακες γνωρίσαντες εἰσεδέξαντο. Θήρων αὐτοὺς τε τοὺς φύλακας φονεύσας, καὶ τῶν πολιτῶν τοὺς πλείστους καθεύδοντας ἀποκτείνας κατέλαβε τὴν πόλιν, καὶ τύραννος ἐγένετο Σελινουτίων.

The Selinountines, having done battle with the Carthaginians, did not have the courage, as the enemy were pressed upon them, to bury the corpses, lying unburied, of the many who had fallen. However, unable to bear seeing the corpses unburied, they took council on what to do. Theron promised that, were he to take three hundred slaves for the purpose of cutting wood, he would himself go with them to burn the bodies and collect the remains into a common grave. Should the enemy get ahold of him, it would be no great damage to the city if it lost one of its citizens and the value of three hundred slaves. The Selinountines agreed to this and authorised him to choose whichever slaves he wished. Theron chose the vigorous and young ones, and led them with their sickles and axes as if to cut wood for the pyre intended for many corpses. When they had left, Theron persuaded the slaves to attack their masters and he returned to the city late that evening. The guards on the ramparts, having recognised Theron and the slaves, let them in. Theron murdered the guards and killed as many of the citizens who were asleep; seizing the city he became tyrant of Selinous.

This stratagem is the sole testimony to Theron's tyranny in the literary record; consequently, few of the details can be elaborated on. Two points deserve attention.

First, the above ruse is reminiscent of that used by Panaitios to establish himself as tyrant of Leontinoi: in particular, the protagonists' ability to convince a group of slaves to turn on their masters.²² Accordingly, the stratagem itself should be viewed as in some degree fabricated to conform the topos-ruse model. However, there exists no good

²² Hulot and Fougères (1910: 90), for instance, also make this same observation. For the other passage, as it relates also in passing to Megara Hyblaia, see ch. IV.

reason to doubt the authenticity of Theron's tyranny, since this sort of event is unlikely to have been created from nothing (compare McGlew 1993: 213).

Second, the most useful element for historical reconstruction in this passage is the mention of war with Carthaginians. A semantic point first requires discussion. Earlier, in connection with the Pentathlos affair, it was suggested that the description "Carthaginians" there most likely referred to the Phoenicians of Motya. However, this same line of argument cannot be repeated here, for it is possible that the Carthaginians in Polyainos may well have been Malchus' expeditionary force.²³ Details about Theron and Malchus are too few to allow conclusions to be drawn, but the likeliest reason for Malchus' foray into Sicily is that the Phoenicians and natives of western Sicily, unable to deal with the local situation themselves, requested Carthage's help to stabilise the territorial ambitions of Selinous and Akragas (Anello 1990-91: 186-188; and discussion further below). The war between Carthage and Selinous recorded in Polyainos makes perfect sense if viewed as part of Malchus' campaigns, which were still taking place when Theron became tyrant, since he offered, ostensibly, to risk his own life, and those of the slaves whom he claims are needed to help him, in undertaking burial of the Selinountine dead, who lie, we may surmise, somewhere in the vicinity of the city. The Selinountines, after deliberating the matter, decided to accept Theron's proposal, whereupon Theron collected his workforce and left, apparently without hostile interference. Once outside the city Theron convinced the slaves to turn against their masters and, on returning to the city late that evening, they seized the city, setting Theron up as tyrant. There is no further mention of the Carthaginians after they are introduced at the beginning of Polyainos'

²³ The possible relationship between these two events do not constitute the dating arguments for Theron's tyranny (for discussion of which, see below).

account, and the silence seems to be indicative, suggesting that Theron's aspirations also marked the end to hostilities. On this basis, Theron is taken to be "pro-Punic" (Asheri 1988b: 757), and he may represent the beginning, as we will see, of a long tradition of philopunic sentiment at Selinous.

The most notable deficiency in Polyainos' account of Theron is chronology. It has unanimously been agreed that Theron's tyranny occurred between 580 and 510.²⁴ The nature of the literary evidence does not allow us to get any closer, but Martin (1977: 55-56; 1983: 35) pieces together archaeological evidence which may help to place the beginning of Theron's tyranny in the mid-sixth century (as Holm 1870-98: i.153 had already done).²⁵ Martin points to the partial abandonment of the acropolis, as revealed by the French excavations, to Gabrici's so-called *phrourion* (see ch. VII), as well as to the initial appearance of monumental architecture (particularly temples C, D, and G).²⁶ But

²⁴ That is, the tyranny is set between the Pentathlos affair of 580-576 BC and Peithagoras' tyranny, which we know (see below) to have been in effect at least around 510 BC, though how much further back it should be pushed remains unknown. See, for instance, Dunbabin (1948: 334); von Stauffenberg (1963: 38); Berve (1967: i.136-137, ii.597); Maddoli (1980: 12); Asheri (1988b: 757); Berger (1992: 30); Luraghi (1994: 52-53).

²⁵ From the second quarter of the sixth century, tyranny was a political development that frequently happened elsewhere in Sicily, so much so that it ushered in the age of archaic tyranny (Finley 1979: 45).

²⁶ Two items may be added to Martin's list: the Selinountine treasury at Olympia, and the city wall of Selinous itself. According to Pausanias (vi.19.10-11), the treasury was situated beside that of Metapontion and close to those of Sybaris and Kyrene; in the treasury itself, Pausanias says, was an image of Dionysos with face, feet, and hands of ivory. Pausanias' testimony has generally been of crucial importance to the German excavators of Olympia in attributing identifications to the complexes found on the "Schatzterrasse" (Mallwitz 1972: 163), and this is all the more true in the case of Selinous' treasury, since the archaeological remains are scrappy indeed: namely, the outline of a small *in-antis* temple, measuring 6.71 m. by 11.65 m., initially built around 540-530 (Mallwitz 1972: 173-174). Relying on Pausanias, therefore, treasury IX at Olympia has been ascribed to the Selinountines. The fortifications of Selinous have been shown to belong to the mid-sixth century (see ch. VII).

is Martin's archaeological case for the dating of Theron justifiable? The view taken here is that his case rests on good grounds; in fact, several additional remarks could be made to strengthen Martin's arguments. Before turning directly to these something must be said about the underlying premises of Martin's reasoning.

The partial abandonment of the acropolis and the existence of a possible stronghold (the so-called *phrourion*) could be made to suggest that this area had become the exclusive preserve of a tyrant. Martin's case, however, is primarily based on the appearance of monumental architecture. The correlation between tyrants and building projects is not indubitable (so Young 1980; T. Van Compernelle 1989; 1992), even if such a connection is commonly assumed (*e.g.*, McGlew 1993: 30). Young (1980: 13) divided his data for tyrants and building projects into three categories, along with the relative weight which accordingly should be given to each of these three classes. The first class comprises instances where literary and archaeological evidence of the right date support the attribution, in which case Young simply accepts the correlation between tyrants and their initiative in sponsoring building projects. Young found that most of his data belong to his second class, wherein one or the other of the preceding types of evidence is deficient in some way. In such instances the evidence is weighed out and a verdict is only then made. The third of Young's classes consists of cases where there is either literary or archaeological evidence. Unsubstantiated literary evidence is dismissed by Young, while material remains receive more consideration before judgement is passed. The evidence for Martin's case belongs to Young's third class. That is to say, a tyrant ruled Selinous for a period of time which may be defined within broad limits; during that time several

monuments were built at Selinous.²⁷ Unfortunately, the evidence from Selinous is such that direct correlations between these two phenomena cannot be made (Luraghi 1994: 55-56), but in view of the scope and expenditure of the building projects undertaken at Selinous at this time (examined in section two below), it is extremely likely the tyrants were responsible for at least some of these monuments. In consequence, Martin is probably on the right course in relating the mid-sixth century appearance of monumental architecture with Theron's rise to tyranny.

Various aspects of sixth-century Selinountine history and archaeology offer additional support, not in Martin's original formulation, for his archaeological arguments. First, a tombstone commemorates the death at Motya of a certain Aristogeitos, son of Arkadion.²⁸ The stone's exact provenance is unknown, but the details furnished by its original owner (who later donated it to the Museo archeologico regionale in Palermo), and above all the alphabet used, unequivocally point to a Selinountine origin. On the basis of its letter-forms, the inscription is dated to the mid-sixth century, and suggests fighting in the mid-sixth century. It could be used to support the initial appearance of Theron's tyranny, since he became tyrant when Selinous was at war with Carthage, perhaps led by Malchus, as already suggested.²⁹

²⁷ Waters (1974: 11) maintains that no building projects can be credited to Selinous' "shadowy" tyrants; this dismissal does not do justice to the complexities of the issues involved with the evidence (see below). Therefore, just because there is, in Water's eyes, no explicit connection does not necessarily mean that none really existed. Note, however, Foxhall (1995: 145): "The further towards monumental permanence you go, the less human individuality (e.g. physical features, specific events) matters."

²⁸ *Editio princeps*: Rocco (1970); cf. also Manni Piraino (1973: 110-111, no. 80) and Arena (1989: 32 no. 18). The doubts expressed by Manni Piraino concerning authenticity have not won any acceptance.

²⁹ That Aristogeitos' death occurred at Motya implies that there is much more to this period of history between the two cities than we actually know. In this regard Giustolisi (1985: 194-199), the well-

A second line of argument in support of placing the beginning of Theron's tyranny around the mid-sixth century is that Selinous' policy of expansion, which was in full vigour particularly during the second half of the sixth century (see ch. X for full discussion), could well have been stimulated by a tyrannical regime. The only sort of evidence in favour of such a claim is analogy, though its force derives from the fact that it touches Selinous very close to home.

Around 570-565, Phalaris became tyrant of neighbouring Akragas, holding the reins of power for some fifteen years; literary and archaeological evidence demonstrate that one of Phalaris' most conspicuous policies was territorial aggrandisement.³⁰ Selinous was already engaged in territorial expansion before Theron's tyranny, as the Poggioreale dedication and Pentathlos affair, discussed earlier, seem to indicate. That Theron gave expansion impetus appears likely indeed: many of Selinous' territorial acquisitions occurred in the second half of the sixth century (see ch. X). Selinous' foundation of Herakleia Minoa could be regarded as a move to block Phalaris' advance west of Akragas (De Miro 1956: 272-273). It may be that Akragas' territorial conquests could not have been left unchecked and unemulated by another Greek tyrant of the region, in order to

known Sicilian *appassionato*, has an interesting theory, which goes so far as to see the Selinountine occupation of Motya. As support he adduces, in addition to Aristogeitos' tombstone, a trireme relief of the last quarter of the sixth century, reported to have been found in one of Selinous' necropoleis (the relief now resides in Basle). Giustolisi takes these latter two shreds of evidence, together with the apparent traces of destruction dated to this same period and the building of fortifications at Motya, as signs of Selinountine occupation, brought to an end by the arrival of Malchus. The sequence of events envisaged by Giustolisi is possible, though the theory's shaky foundations must be kept in mind.

³⁰ For Phalaris, see de Waele (1971: 164-165); Murray (1992a); Luraghi (1994: 21-49); territorial expansion: Micciché (1989: 43-67) provides a good overview of the evidence. Territorial aggrandisement was common with the Sicilian Greek tyrants (Finley 1979: 45; Luraghi 1994: *passim*).

maintain prestige.

These two sub-arguments are not put forth as supporting the archaeological case for Theron's dating, for that would be circular argumentation. Instead, we may have recourse to a version of Keith Hopkins so-called "wigwam argument".³¹ The individual points, therefore, have their own validity, but when taken together they seem to cluster, in more than a coincidental way, around the mid-sixth century as being roughly the date at which Theron became tyrant of Selinous.

The exploits being credited to Theron here may possibly have been continued by another tyrant, a certain Peithagoras, of whom we hear in the last years of the sixth century. This information is recorded by Herodotos (v.46) in recounting the adventures of the Spartan Dorieus.³² The chronological indicator which locates at least part of Peithagoras' tyranny in time is the synchronism with the destruction of Sybaris, for Dorieus aided Kroton in capturing Sybaris. This date of destruction is conventionally set at 510 BC (*cf.* Greco 1992: 29), after which date we must allow time for Dorieus to establish his colony in Sicily, let that new foundation flourish, cease to exist as a result of joint Phoenician and Segestan opposition, and for the sole survivor, among the co-

³¹ In Hopkins' (1978: 19-20) words: "There are several pieces of evidence, each insufficient or untrustworthy in itself, which seem collectively to confirm it. I call this the wigwam argument: each pole would fall down by itself, but together the poles stand up, by leaning on each other; they point roughly in the same direction, and circumscribe 'truth'. I realise that it is dangerous to accept the general tenor of the evidence while doubting the truth of individual pieces." I have deliberately described my use of the wigwam argument as a version of it, because, unlike Hopkins' evidence, the present data are not "insufficient" or "untrustworthy", being instead reliable as facts in themselves.

³² Herodotos (v.39-48) is the main source for Dorieus; briefer versions of the story can also be found in Diodoros (iv.23.3) and Pausanias (iii.3.9-10-iii.4.1). I will not get entangled in an event of secondary concern here. For two recent discussions of Dorieus, which have done much to remove the Herodotean colouring of Dorieus as a reckless wanderer, see McGlew (1993: 180) and especially Malkin (1994b: ch. 7).

founders in Dorieus' expedition, Euryleon, to seize Herakleia Minoa, and then finally help the Selinountines to rid themselves of the tyrant Peithagoras. Modern scholars have traditionally let five years elapse between Dorieus' arrival in north-west Sicily and Euryleon's failed attempt at tyranny of Selinous (Dunbabin 1948: 354; Berve 1967: i.137; Maddoli 1980: 12-15, 26-28; Luraghi 1994: 54).

Of Peithagoras' tyranny nothing apart from his name is directly known, nor of Euryleon's brief seizure of power either; their history is shadowy.³³ That Peithagoras was, like Theron, pro-Punic seems an altogether plausible inference to make, largely because Euryleon, and the Dorieus enterprise generally, was certainly anti-Punic in sentiment, and this would explain why Euryleon aided the Selinountines in throwing off the yoke of Peithagoras' tyranny (Luraghi 1994: 54-55).

The Early Fifth Century

Possibly connected with these turbulent events of the late sixth century is a bronze inscription from Olympia, surviving in eight fragments, of which two are much too fragmentary to be of any utility. Only one good paragraph can be read from the six remaining fragments. The inscription stipulates terms for the return of exiles (*editio princeps*: Dittenberger & Purgold 1896: 51-58, no. 22). Inscribed in archaic boustrophedon lettering, it is dated on palaeographic grounds to the late sixth/early fifth

³³ Parisi Presicce (1985: 82-83) suggests the following possible scenario: that temple E1 was destroyed by Euryleon in his fight against Peithagoras, and that Euryleon then began work on temple E2, which was broken off because of the brevity of his time in power. In the late fourth century the Spartan king Areus is said to have read an elegaic couplet inscribed on a monument at Selinous commemorating the tyrannicides who had been killed (Plutarch, *Moralia* 217F). Asheri (1979: 496 n. 15) considers the Plutarchan anecdote apocryphal, better suited to Akrotatos, the father of Areus (Berve [1967: ii.597] prefers not to single out a particular tyrant). Be that as it may, Asheri agrees that the story records the existence of tyrants at Selinous, and suggests that the commemoration in question probably refers to Euryleon's tyranny, on the grounds that a Spartan king would have been interested in the exploits of a past compatriot.

century (the lowest possible date of the inscription necessitates its inclusion under this chronological heading).

Prior to Asheri's (1979) re-examination,³⁴ it was thought that the inscription referred to the repatriation of exiles from Selinous to Megara Hyblaia (see Asheri 1979: 494-495). However, Asheri showed the opposite was the case, *i.e.*, Selinountine exiles sought refuge at Megara Hyblaia, and later sought to return to Selinous. This view is centred around the mention of exiles (φυγόντες) in fragments "A" (line 9) and "F" (line 7):

Sarebbe strano che una città, in un documento ufficiale, chiamasse φυγόντες persone esiliate da un'altra città. In un trattato giurato tra Selinunte e persone dette φυγόντες, queste ultime possono essere soltanto degli esuli *selimuntini*, non megaresi o altri. Gli esuli espulsi da altre città non sono affatto "esuli" dal punto di vista della città che li accoglie: questa può chiamarli μέτοικοι, ἔποικοι, σύνοικοι, oppure col loro etnico (*Mεγαρεῖς*, per esempio), ma non φυγόντες. (Asheri 1979: 486)

These arguments are more cogent than those offered by previous scholars, and Asheri's line of reasoning has since been unanimously accepted. As to other matters which this inscription raises, a few remarks can be made, though with little in the way of elaboration.

The treaty acts as a regulator between two parties, the *polis* of Selinous and a particular group of exiles: excluded are those who went into exile before the decree had been deposited at Olympia (Asheri 1979: 493-494). Although the inscription is too fragmentary for complete certainty, it may have contained a list of persons in exile (Asheri 1979: 492). The returning exiles were to be re-incorporated into Selinountine society, with part of their confiscated property to be given back. The *aisymnetes* was responsible

³⁴ Cf. also SEG xxix.403; Arena (1989: 49-52, no. 52); Berger (1992: 31).

for carrying out this task, as well as exacting fines, or confiscating any property, or even handle re-expulsion, should the returnees transgress any of the regulations contained in the agreement (Asheri 1979: 494-495).

The question naturally follows as to the event(s) to which the inscription gave rise. Asheri (1979: 495-496), after reviewing what is known of the period's history, thought it best not to connect any one, or more, of these events with the Olympia inscription, pointing out that violence and factional strife appear very much to have been the order of the day, and that it would be "fatica vana" (Asheri 1979: 497) to attempt to be more precise when the documentary sources of the period are so lacunose. Asheri's final conclusion is followed here: Selinous was experiencing political turbulence in the late sixth/early fifth centuries, and it would be unwise to try to attach specific historical reconstructions to this battered inscription from Olympia.

The next known incident in Selinous' archaic history entails further friction, involving the capture of Herakleia Minoa by Akragas. Not a scrap of evidence survives concerning events before, during, and even, for the most part, after the loss of this Selinountine sub-colony; what historical documentation there is consists of the "end-result" for Akragas.

In the so-called *Lindian Chronicle* from the temple of Athena on Lindos in Rhodes,³⁵ the following dedication was made:

[Ἀκρα]γαντινοὶ [Παλ]λάδιον, οὗ ἦν τὰ ἀκρωτήρ[ια]
ἐλε[φ]άν-

³⁵ This is an inscription of 99 BC compiled from various sources by a certain Timakhidas of Lindos. Generally speaking, the inscription contains a list of the most important dedications to Athena Lindia in connection with major historical events. It was natural for Akragas to dedicate at this sanctuary because of its ties with the homeland. All modern editions are ultimately based on the edition by Blinkenberg (1941: 149-200 no. 2).

[τινα, ἐφ' οὗ ἐπεγέ]γραπτο· Ἀκραγαντ[ί]νοι τᾶ[ι]
 Ἀ[θάν]αι
 [τᾶι Λινδίαι ἀκρο]θίνιον ἐκ Μινώιας, ὡς ἀποφαίνε-
 [ται Ξεναγόρας ἐν] τᾶι Α τᾶς χρονικᾶς συντάξιος

The Akragantines: a Palladion whose outer parts [*i.e.*, head, hands, and feet] were of ivory, on which it had been inscribed 'The Akragantines dedicated to Athena Lindia the booty from Minoa,' as Xenagoras shows in book one of his chronological work. (*FGrH* 532, C:30)

The Minoa of this dedication can only mean the one founded by Selinous, and the dedication of booty presupposes success in battle. As to the date of this Akragantine victory, the ordering of the inscription may not be used, as Dunbabin (1948: 353) did, to provide parameters within which to situate Herakleia Minoa's capture, since de Waele (1971: 43) has shown that the *Lindian Chronicle* does not follow a strictly chronological order. However, two clues permit a range of dates to be suggested. First, it is extremely unlikely that the sub-colony could have been captured before Euryleon's seizure of it in 505 because at that time Herakleia Minoa still belonged to the Selinountine sphere (Dunbabin 1948: 353). Second, a distinction is constantly made in the *Lindian Chronicle* as to the party responsible for making the dedication, whether states or individuals (kings or tyrants, for example). That "the Akragantines", and not some individual, are credited with the dedication may be significant, and may imply that the fall of Herakleia Minoa took place before Theron became tyrant of Akragas, whose beginning is usually placed at 488 BC (R. Van Compernelle 1992; Luraghi 1994: 239-242); the absence of Theron's name from the dedication acts in effect as a possible *terminus ante quem* for the fall of Herakleia Minoa. Thus, at best, the capture of Herakleia Minoa can be situated somewhere between 505 and 488 BC, this range being widely accepted by scholars.³⁶

³⁶ *E.g.*, Dunbabin (1948: 354); de Waele (1971: 43); Musti (1992: 43); Luraghi (1994: 41).

The exact details and ramifications of this loss to Selinous are unknown. We can, however, indulge for a moment in pure speculation as regards the resultant shift in location of Selinous' eastern frontier, for, in losing Herakleia Minoa, Selinous doubtless also incurred territorial losses.³⁷ Akragas' westwards expansion focused primarily on the Platani river-valley, and Herakleia Minoa, located at the mouth of this river, was a key element in this process (De Miro 1962: 149-150; Anello 1990-91: 193). After Herakleia Minoa's capture, we find, as we follow the Platani's course inland, that native sites were abandoned at this time (*e.g.*, Sant'Angelo Muxaro) and new Akragantine ones come into being (*e.g.*, "altopiano Kassar"). It seems unlikely that Selinountine losses could have gone beyond the Sciacca-Caltabellotta area, and perhaps it is more reasonable to place the new frontier with Akragas now at the perennial watercourse of the Verdura river (see ch. X for details on the area's geography). In view of the dearth of documentary evidence, archaeology can provide the hope of bringing to light new evidence which could be of use in determining the spatial losses almost certainly suffered by Selinous (the Borgo Bonsignore, discussed in ch. X, would be a good possibility for excavation).

The anti-Punic political views of Dorieus and his entourage were mentioned earlier in connection with Euryleon's short-lived attempt at the tyranny of Selinous. Euryleon was killed, and presumably the city reverted back to the pro-Punic stance it had had in the past, for at the Battle of Himera in 480 BC Selinous aligned itself with the Carthaginians, offering a detachment of cavalry, which in the end never did battle (Herodotos vii.165; Diodoros xi.21.4-5). Therefore, at some point between *ca.* 505 and 480 Selinous moved

³⁷ Compare Luraghi (1994: 233): "...il logico sviluppo dell'espansione agrigentina...gli anni finali del VI secolo testimoniano anche di un fatto nuovo: l'inizio della pressione agrigentina verso Occidente."

once again to the Punic camp; the most logical occasion to postulate such a move would have been soon after the loss of Herakleia Minoa.³⁸ Selinous' resolve in the alliance with the Carthaginians may have hardened as a result of Gelon's destruction of Megara Hyblaia in 483/2 (Dunbabin 1948: 419; Vallet 1958: 362; Hans 1983: 40 n. 69), although it would be wrong to see these eastern Sicily affairs as being in themselves responsible for Selinous' alliance with the Carthaginians. The main reason must have been the threat of Akragas' growing power.

To all appearances, the Carthaginian defeat at Himera did not bring with it immense losses (Asheri 1988b: 775; Lancel 1995: 134-135). Gelon imposed a tribute of 2,000 talents of silver, as well as the order to build two temples in which to display the treaties, on the loser (Diodoros xi.26.2); nothing is mentioned in the way of territorial concessions. Whether Selinous was included in the tribute imposed on the Carthaginians is unknown. Østby (1987: 151) observed that Selinous continued to build temples in and around the time of the Battle of Himera, and on this basis he suspected that Selinous' wealth was not much affected. However, new evidence from temple G suggests that work was suspended around 480-470 (see ch. VII), and it is very possible that this was due to a shortage of funds caused by the payment of tribute.

The Monumental Temples of Selinous

The intention of this section is to move beyond strictly art historical aspects by studying Selinous' seven known monumental temples (A, C-G, O) as statements of human

³⁸ Freeman (1891-94: ii.481-482); Dunbabin (1948: 419); Merante (1970: 113); Hans (1983: 40); Anello (1990-91: 193).

expression and achievement, something which has rarely been attempted.³⁹ Clues regarding "...economic, political and social organisation on a scale not otherwise often documented" (Coles 1973: 86) are embedded in monumental architecture.⁴⁰ In attempting to reveal such information as regards Selinous' temple-building programmes, we will begin by quantifying the amount of stone and the probable cost incurred in extracting, transporting, erecting, and polishing it. Thereafter attention turns to speculating on who paid for the temples, and to the possible significance of the monuments.

Quantifying the Stone

Several remarks on the procedure behind the absolute figures need first to be made.

One of the major problems encountered in the study of Greek temples is the lack of measurements. R.M. Cook (1972: 175) remarked on this dilemma: "...there are still too few major temples or other sizeable structures for which reliable and significant measurements are available." How does Selinous fare in this respect? Thanks largely to Koldewey and Puchstein's (1899) meticulous study, it may be said that Selinous' temples are to be counted amongst the "few" of which Cook speaks.⁴¹ Koldewey and Puchstein could already incorporate into their study the results of the early excavations conducted

³⁹ As noted by Burford (1965: 21) and Martin (1973b: 185); the latter's work represents the only attempt for Greek Italy. Note that anthropological archaeologists have in only in the last three decades moved beyond "pure description and qualitative assessment" (Abrams 1989: 48).

⁴⁰ See also Coles (1979: 237). Compare Rockwell (1993: 5): "Any object worked in stone is a document...." Monumental architecture appears in all complex societies worldwide; "[i]ts principal defining feature is that its scale and elaboration exceed the requirements of any practical functions that a building is intended to perform" (Trigger 1990: 119).

⁴¹ Mertens (1990: 373) observes that Koldewey and Puchstein's work marked the beginning of critical discussion of Greek Italy's temples.

	<i>Krepidoma</i>	Column Shafts	Capitals	Cella Block	Entablature	Volume (m. ³)	Tonnage***
Temple A	938.95	268	85.2	473.86	368.3	2,134.31	4,802.2
Temple C	3,002.65	840.42	292.56	656.8	876.4	5,668.83	12,754.9
Temple D	2,033	521.28	174.4	500	1454.6	4,683.3	10,537.4
Temple E3	2,797	1,420.4	420.4	1,563.16	1,543.26	7,744.22	17,424.5
Temple F	1,596.1	660.8	152.4	766.73*	907.4	4,083.43	9,187.7
Temple G	9,481.32	5,087.7	1,352.96	3,007.9	4,770.8	23,700.68	53,326.5
Temple O**	938.95	268	85.2	473.86	368.3	2,134.31	4,802.2
						50,149.08	112,835.4

Table IX. 1: The quantity of stone used for individual parts of the monumental temples of Selinous.

*Of this total, 141.73 m.³ belong to the screen wall.

**Temple O is slightly larger than temple A, although the exact measurements of the former are not known.

***Each cubic metre of limestone equals 2.25 tons (Coulton 1974: 3 n. 15).

at Selinous; there has also been much work on Selinous' temples since then (see ch. VII).

The procedure used to convert measurements into cubic quantities of stone (m.³) is to work up from the *krepidoma*.⁴² For the platform, architrave, and frieze (no allowance is made for the carved out portions of the triglyphs) of the temples the method used is to multiply the length, width, and height of these elements. The capitals are similarly treated, that is, as if they were complete blocks of stone. As to the columns, the formula $v = \pi r^2 h$ is employed to calculate the volume (v) of stone (following Stanier 1953): $\pi = 3.14$; r^2 = the radius (or the average diameter of the column divided by two) squared,⁴³ and h = height (of the column). The tendency has been to formulate estimates which are on the generous side, because, although the blocks of stone used in the temples were mostly already shaped in the quarry (pl. 27), the final stages of "polishing" would have been carried out at the building site. Excess stone, present in the first stages of the work, was then discarded, but the effort had still been expended. It is important to bear this element of "lost" stone in mind, even though it does not appear in the final product. The guiding principle has been to calculate orders of magnitude (table IX.1).

The Probable Cost of the Stone

In so far as consensus is possible, it is generally agreed the stone used in temple-building did not itself cost anything (Burford 1965: 29; 1969: 172-173; Snodgrass 1983b: 20; Osborne 1987: 84); labour and transport are the only costs likely to have been

⁴² The basic stone skeleton of any temple usually represented just over three-quarters the cost (Stanier 1953: 72-73; Burford 1969: 193-195). There is much uncertainty regarding temple roofs, and I follow Martin (1973b: 186-187) in excluding them from the calculations. We know nothing about the cult statues housed in these temples, or details about other possibly costly accoutrements.

⁴³ The lower and upper diameters of the columns are added together and divided by two to arrive at the average diameter of the column.

incurred (Burford 1960; Coulton 1974). As Burford (1969: 173) noted, that is not the same as saying that the stone had no value, for as a finished product it obviously did. Rather, the costs involved would have come during the four stages through which the stone passed in temple-building: namely, quarrying, transport, erection, and polishing (Stanier 1953: 69; Burford 1969: 167; Martin 1973b: 187). To estimate costs, recourse must be had to comparative evidence: there is no information from Selinous itself relevant to answering these questions.⁴⁴ Such comparative material can only suggest probable cost ranges, which is still worth knowing (so Burford 1969: 192).

This comparative evidence consists of two sets of data. The first set contains two incidents preserved in literary sources. Herodotos (ii.180) records that the Alkmaionids rebuilt for 300 talents the temple of Apollo at Delphi after it was destroyed by fire in 548. Polyainos (v.1.1) recounts the stratagem Phalaris employed to make himself tyrant of Akragas: Phalaris offered to undertake the construction of the temple of Zeus Polieus on the acropolis, the contract price of which building project is stated to be 200 talents. Of prime importance here are the figures given as the cost of these two temples; we should not doubt the plausibility of the costs quoted (Beloch 1895: 66; Coulton 1988: 20 n. 27). Unfortunately, however, we cannot proceed further, since the dimensions of the temple of Apollo at Delphi are completely unknown (Stanier 1953: 68), and the temple of Zeus Polieus at Akragas has yet to be found (Dunbabin 1948: 316; de Waele 1971: 186-187, 221; T. Van Compernelle 1992: 12).

The second set of data is more detailed, and comprises building accounts from

⁴⁴ Martin (1973b: 187); the situation has not changed since then. The only surviving connection between a temple and monetary matters is IG xiv.268 from temple G, which has nothing to do with the costs involved in temple-building (see below), but rather with an amount of money contained in the temples at a moment in time.

mainland Greece. The most detailed (due to preservation) and best studied of these records is the material from Epidauros analysed by Burford (1969), whose work demonstrates well the possibilities and limitations. The information contained in Burford's (1969: esp. ch. 6) study also provides food for thought, for it supplies valuable insights into price fluctuations and donations in temple-building. Martin (1973b) overlooks this important matter, but it needs generally to be remembered that the information contained in the Epidauros building accounts is unique, representing local conditions which cannot be indiscriminately extended to other situations. The only course open, therefore, is to leave aside all such building accounts, and to take a more general line.

The dynamics behind Selinous' temple-building are now being revealed by petrographic analyses, which have demonstrated that the stone came from different quarries (for which see ch. X). Study remains incomplete, leaving us with tantalising glimpses of the underlying intricacies (Carapezza *et al.* in V. Tusa 1983: 32-41; Hein in Peschlow-Bindokat 1990: 45-65). The most eloquent example of this situation is temple G's stone, extracted from at least three or four different quarries (Hein in Peschlow-Bindokat 1990: 63). The knowledge, however partial, that the stone of Selinous' monumental temples was quarried and transported to the city from different quarries located at different distances over varying topographic conditions has an important bearing on the present discussion. Simply put, we are not entitled to generalise and assume the one quarry per temple equation, yet at the same time, even cognisant of this fact, we cannot delve more deeply into a discussion of cost estimation given the incompleteness of the petrographic analyses.

In the meantime, I adopt Coulton's (1988: 20 n. 27) approach: "By analogy with sixth-century temple costs at Delphi and Akragas the cost of temples C, D, FS, GT, ER,

A, and O at Selinous would have been somewhere about 1500-2000 talents." Even this sort of reasoning is obviously not without its difficulties: for one thing, the cost range is based on analogy, though closer in date than the Epidaurian material; for another, the range certainly refers to the overall cost of the Delphian and Akragantine examples, whereas we are interested solely in the stone. To arrive at costs for the stone alone we may take, say, 80% of Coulton's figures (remembering that generally speaking the stone made up over three-quarters of the costs of temple-building), thus now producing a range of 1,200-1,600 talents. This new cost range may be broken down (roughly) proportionally among the seven temples as follows (volume of stone per temple divided by total volume of stone): temple A: 51-68 talents; temple C: 135.6-180.8 talents; temple D: 111.6-148.8 talents; temple E3: 184.8-246.4 talents; temple F: 97.7-130.24 talents; temple G: 567.12-756.16 talents; temple O: 51-68 talents.⁴⁵

Paying for the Temples

I will begin by tackling the question of monetary funds in temples, and then set the ramifications of this enquiry against the question of responsibility. In proceeding in this way, we can at least start to define the possibilities.

In a speech on the eve of the Athenian expedition against Syracuse, Nikias is reported as having said the following: χρήματά τ' ἔχουσι τὰ μὲν ἴδια, τὰ δὲ καὶ ἐν τοῖς ἱεροῖς ἐστὶ Σελινουντίοις (Thuc. vi.20.4).⁴⁶ This ancient tradition about the wealth stored in Selinous' temples is not just myth, the idle rhetoric of a politician; such riches has been corroborated by the discovery, amongst temple G's ruins, of *IG*

⁴⁵ Martin (1973b: 189-191), employing the Epidaurian comparative evidence, arrived at a total cost of 1,269 talent for the stone of temples C, D, E, F, and G (temples A and O were excluded).

⁴⁶ "They have wealth both personal as well as that in the temples of Selinous."

xiv.268, which records a dedication of sixty talents on the occasion of a victory.⁴⁷ On the basis of letter-forms, the dedication is dated between c. 450 and Selinous' destruction in 409/8.⁴⁸ A debate has raged over which historical event(s) to attach to this dedication, or whether the 60 talents were accumulated over many decades or the result of a single event. Such questions lie outside this study's scope; in any case certainty in these matters is impossible. At issue here is the amount of the dedication.

There are two possible positions: did the 60 talents represent weight in gold (*ca.* 1,572 kg.), or the value of the object in silver (*ca.* 112 kg.)? Musti (1985: 150) is correct in stressing that no definitive conclusion can be drawn. Intuition is the only guide, and on these grounds it has generally been thought that the 60 talents were of silver. Even if true, however, we do not know whether the wealth was stored in all of Selinous' temples over a long period of time, or whether the sum should be considered as a single accumulation. In view of these uncertainties, *IG* xiv.268 has very limited utility as a document for Selinous' financial situation, upon which Coulton (1988: 20) has speculated:

It is difficult to estimate the annual budget of a normal Greek city at any period, but such evidence as there is suggests that it was small, particularly in the archaic period. It is hard to imagine the state income of Selinous in Sicily being sufficient for the two normal temples, the four large ones and the colossal one that were constructed between c. 550 and 450 B.C.

The authoritative power responsible for funding Selinous' temples must be judged, at least partly, with this consideration in mind. The funds would probably have been gathered as work proceeded (Burford 1969: 83-84; Coulton 1988: 21). The initiative itself could have

⁴⁷ The standard edition of the inscription is Calder (1963; 1964).

⁴⁸ Calder (1963: 60); Pugliese Carratelli (1982); Ampolo (1984b); Musti (1985).

come from two possible sources, namely the state and rich individuals (Coulton 1988: 20-21). In Coulton's view, the Selinountine state may not have been capable of funding only the small projects.⁴⁹ Unless the Selinountine state generated revenues on a scale larger than what records elsewhere would lead us to expect, we must believe that individuals at Selinous had more money and more freedom to show off their wealth. It is for this and other reasons (to be discussed presently) that we should regard wealthy individuals as largely being responsible for commissioning the monumental temples.

Mertens (in AA.VV. 1990: 75) makes an important point which we may take as our starting-point: "È insito nella natura stessa dell'architettura, tra tutte le arti, di rispecchiare nel modo più chiaro e più immediato le tendenze e le idee-guida di un'epoca." What was the spirit of the times in archaic Selinous? The financial outlay provides one indication. The chronology of Selinous' temple-building programmes is still rather coarse (see ch. VII), but the monumental temples can be situated within a period of about ninety years (550-460). If, for the sake of argument, we divide the cost and quantity of stone evenly over this period, the building projects would have entailed an annual investment of at least 13-18 talents (the probable cost of the stone) and the annual movement of almost 557 m.³ of stone, or about 1,253.25 tons. Some projects were more costly than others (these individualised costs were made earlier), and the relative order of the temples allows the pace of investment to be assessed:

- 550: temple C @ 135.6-180.8 talents.
- 540: temple D @ 111.6-148.8 talents.

⁴⁹ Holloway (1991: 61), on the other hand, maintains that "...these magnificent buildings are an unerring sign that the city, not individual aristocrats, held control. This must have been true from the late seventh century when the first monumental building on the site of Temple ER was constructed."

- 520: temple F @ 97.7-130.24 talents.
- 525-470: temple G @ 567.12-756.16 talents.
- 490-460: temple A @ 51-68 talents.
- 490-460: temple O @ 51-68 talents.
- 460: temple E3 @ 184.8-246.4 talents.

Of the first three of these temples, temple C is the costliest, with D and F gradually being less costlier. Temple G reverses the decline in cost, resulting in the most expensive temple ever raised at Selinous. Then come the smallest projects, temples A and O. Temple E3 raises the level of investment.⁵⁰ The economic side of this pattern of building indicates that Selinous was extremely prosperous during these ninety years, and that this prosperity was constant, spread out over this entire time.

The desire to invest lavishly must be sought in the socio-political realm. The right conditions had to be in place at Selinous for individuals to think in grandiose terms and to be able to fund at such a great level, to invest, in other words, in "symbolic capital" (Bourdieu 1977: 179). Tyrants satisfied the latter two conditions.⁵¹ Wealth was a crucial element in the rise of tyrants: "The new and dominating element in Greek society in the seventh and sixth centuries was the emergence of rich men" (Cawkwell 1995: 86). The very nature of tyranny also lent itself to the big thinking and display of Selinous' monumental temples. Tyrants have been likened to oikists (Métraux 1978: 17; McGlew 1993: *passim*), in that both charted the city's course in various ways. Oikist and tyrant alike, therefore, played extremely important rôles in *polis* development. The difference,

⁵⁰ Had this structure been completed in the late sixth century when construction originally began, the pattern of investment could have remained high without any downward turn after temple G.

⁵¹ So, for example, Bejor (1977: 442); Martin (1977: 55-56; 1983: 35); Coarelli and Torelli (1984: 75-76); Mertens (1990: 377).

however, lies in how they were commemorated: the city honoured the oikist on his death, whereas the tyrant took this into his own hands. The tyrant was at the forefront of the city's success, and sought to record his achievements in a lasting manner. Three temples in particular are good candidates as "tyrant temples."

Temple G's size makes it unique, though it also stands out because it was dedicated to Zeus, the supreme Olympian. The imagery in the metopes of temples C and F could also conjure up the hand of a tyrant. Fragments of a gigantomachy survive from temple F; similar images in the metopes of the Olympieion at Akragas have been interpreted in the following manner:

...la Gigantomachie, qui décorait la façade principale du temple, participerait à la propagande visant à la légitimation du pouvoir du tyran: celui-ci, à l'image des Olympiens, aurait, par son action, assuré définitivement l'existence et le triomphe de la *polis*, un ordre nouveau, le régime tyrannique, succédant au chaos, l'ancien régime aristocratique. (T. Van Compernelle 1992: 67)

Temple's F cult may have been dedicated to Dionysos (ch. VII), a suitable choice that also conjures up images of aristocratic revelery. Temple C seems to have been dedicated to Apollo, one of Selinous' most important cults it could be surmised, for it was under the god's aegis that colonisation occurred, and in view of the oikist-tyrant parallel just mentioned this could be translated as meaning the emergence of a similar era of charting new ground. Temple C's metopes also depict superhuman individuals (*e.g.*, Perseus and Herakles) triumphing over "evil" forces (pls. 24-25). Tyranny, therefore, could have supplied the temperament necessary for monumentality.

But it would be too simplistic to ascribe all monumetal building during the period 550-460 to Selinous' tyrants, mainly because the last forty or so years of this period were without tyrannical rule, but also because we must envisage groups both friendly and

hostile to the various tyrants involved in the process. Rival factions could have competed, through their own building projects, for position and prestige, while allies of the regime could have complemented the tyrant with their own public works. Building also occurred, of course, outside periods of tyranny. This is clear, for instance, at late sixth-century Akragas, before Theron's tyranny (in 488), when two temples, town plan, and fortifications came into being (De Miro 1992: 153-156; T. Van Compernelle 1992: 13-14). The potential contribution of the "average" private individual and of temple treasuries should also not be forgotten, but given the intensity in which temple-building at Selinous occurred, larger and more constant sources of primary funding need to be envisaged. This can only really be explained by ascribing much of the responsibility to Selinous' aristocrats, who had the financial resources and competitive ethos to leave their mark on the city for posterity.

Conclusions

The sources for Selinous' archaic history are patchy and uneven. Written sources provide some details of Selinous' socio-political development, but the picture is far from complete. The archaeology, unfortunately, does not make these deficiencies good. Research has favoured civic architecture; habitation areas and cemeteries have yet to receive the same attention. Future generations of archaeologists hold the key to revealing Selinous' past. In the meantime, the following points about Selinous' archaic history may be made.

Recent archaeological discoveries have raised doubts that initial Selinountine settlement began peacefully, as is often widely held. At the very least, the native site at Montagnoli sounds a note of caution, demonstrating how little is still known generally

about early Selinous. But the possibility that relations with the natives may have been hostile, the opposite to what they seem to have been at Megara Hyblaia, serves as a reminder that Selinous' history must chiefly be seen in western Sicilian terms. This factor was at work, in different ways, in a single generation. In the Pentathlos affair, Phoenicians and natives waged war against Selinous and its Knidian and Rhodian allies. Later, perhaps as a result of Akragas' growing power, the situation had reversed during, it seems, Malchus' campaigns in Sicily. Henceforth we witness a long period of philopunic, and presumably native as well, sentiment at Selinous, which lasted beyond the Battle of Himera in 480. Such peaceful relations appear to have begun with Selinous' tyrants, and coincided with an era of extreme prosperity. This alliance with the non-Greek western Sicily brought with it relative stability, which allowed Selinous to flourish. In the next chapter we examine the environmental and economic foundations of this success.

CHAPTER X:
ENVIRONMENT AND ECONOMY

Introduction

Selinous' remarkable temple-building alone is monumental evidence for the wealth of the city and of individuals within it. The creation of such wealth and the desire to invest it steadily imply considerable economic organisation; even wealth based on agricultural surplus requires the construction of marketing mechanisms to convert it into disposable wealth. The intention of this chapter is to examine Selinous' environmental and economic foundations. Consideration of these elements will then allow something to be said about the origins of Selinous' wealth.

The Territory

Defining the Territory's Extent

The sources are written, archaeological, and topographical, and are of rather sufficient detail to get an idea of the two elements that are distinguished in the study of colonial territories, namely *polis* territory proper and the zone of influence beyond, over which there was no political or military control.¹

I. THE LITERARY EVIDENCE

A) The western border: Three pieces of evidence are relevant:

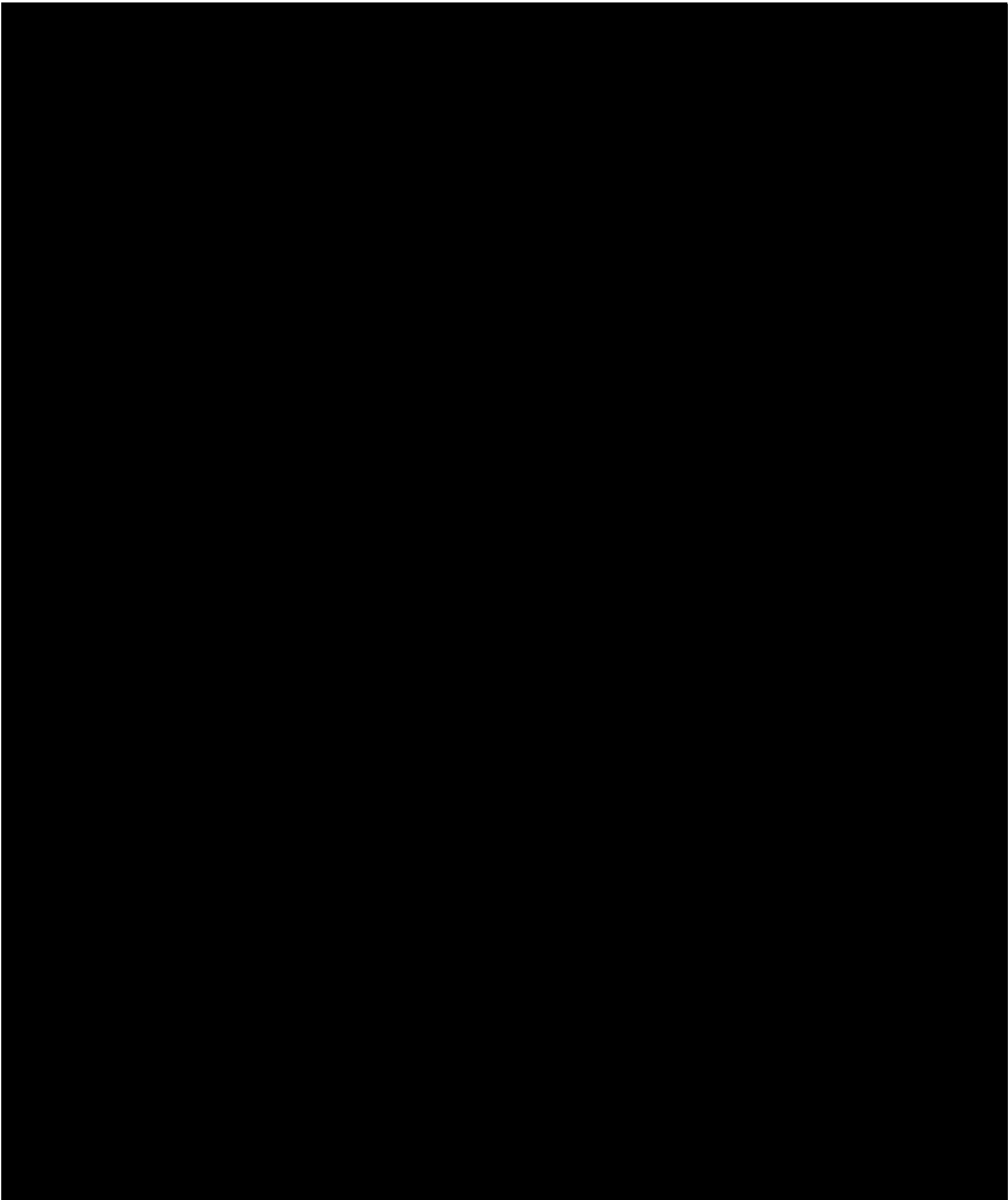
(i) Stephanos of Byzantion, s.v. Μαζάρη:

φρούριον Σελινουντίων. τὸ ἐθνικὸν
Μαζαραῖος, ὡς Ἐνναῖος Ἱμεραῖος.

Mazare: a fortified site of Selinous. The ethnic is Mazaraios, like Ennaios, Himeraios.

(ii) Diodoros, xiii.54.6:

¹ Lepore (1968: 30); Vallet (1968: 70; 1983b); Tréziny (1986b: 7).



[Hannibal] ἀπὸ τοῦ Λιλυβαίου τὴν πορείαν
ποιούμενος ἐπὶ Σελινοῦντος. ὥς δ' ἐπὶ τὸν
Μάζαρον ποταμὸν παρεγενήθη, τὸ μὲν
παρ' αὐτὸν, ἐμπόριον κείμενον εἶλεν ἐξ ἐφόδου

[Hannibal] made his way from Lilybaion to Selinous. When
he came to the river Mazaros, he captured in the first
assault the *emporion* situated by it.

There is no mark of time in Stephanos, who simply describes Mazare as a *phrourion* of Selinous.² Diodoros mentions the capture of Mazare in connection with Selinous' destruction in 409/8. Stephanos and Diodoros are at variance with regard to the function of Mazare, but there is no reason to think that it could have been both a *phrourion* and *emporion*.³ Because Hannibal took Mazare first before moving on to Selinous, the impression one gets is that Mazare and the river Mazaros were the first Selinountine possessions the Carthaginians came upon on their way to Selinous. This belief is strengthened somewhat by the fact that an *emporion/phrourion* site like Mazare was usually placed with a view to delimiting borders (see further below). Therefore, Stephanos and Diodoros provide valuable indications of Selinous' western frontier in 409/8.⁴

² Mazare is today Mazara del Vallo (Manni 1981: 115-116, 200) (fig. X.1). The date at which Selinous established Mazare is unknown. Archaeological investigations have limited scope because of the modern city covering the ancient remains, although some archaic and classical material (including a coin hoard; see below) has come to light (*BTCGI* ix.504). Selinountine settlement may have begun in the sixth century in what appears to be a period of general expansion (see below).

³ *Emporion* can refer to the part of town where trade was centred (Bresson 1993: 218). Diodoros' description of Mazare as an *emporion* fits into his general emphasis on Selinous' great wealth.

⁴ Diodoros (xiii.54.3) also mentions that τῶν Σελινουντίων τινὲς ἱππέων περὶ τοὺς τόπους διατριβόντες ("some Selinountine cavalry were tarrying around those regions" [sc. Lilybaion]) when the Carthaginian army landed in Sicily for the Selinous campaign. On this basis, Di Vita (1984b: 76) believes that Selinous controlled or at least had free access of the Lilybaion area. Although this view is plausible, we do not know what Selinous' cavalry was doing there at the time. All indications are that the river Mazaros acted as the western boundary.

That the river Mazaros had been the frontier earlier is suggested by an emended passage of Diodoros (xi.86.2) referring to a border dispute in 454/3. The version of the passage accepted here is as follows:

κατὰ δὲ τὴν Σικελίαν Ἐγεσταίοις καὶ
Ἀλικυαίοις ἐνέστη πόλεμος <πρὸς
Σελινουντίους> περὶ χώρας τῆς πρὸς τῷ
Μαζαρῷ ποταμῷ

In Sicily war broke out between Segesta and Halikyai and Selinous over territory by the river Mazaros.

The arguments in favour of this reading are quite plausible (Hulot & Fougères 1910: 102 n. 4). Some manuscripts have Segesta fighting Lilybaion, which is impossible since the latter did not yet exist. Halikyai is restored as allied with Segesta because of *IG* i³ 11a and 12, where these Elymian cities formed an alliance with Athens; presumably, therefore, they would not have fought each other.⁵ Selinous is left as the only logical enemy to add to the text.

B) The *dyskhoria*: In relating the attempted Carthaginian recapture of Panormos from the Romans in 251/0, Diodoros says (xxiii.21.1-4):

Ἀσδρούβας δὲ ὁ στρατηγὸς τῶν
Καρχηδονίων βλασφημούμενος ὑπὸ τῶν ἰδίων
διὰ τὸ μὴ πολεμεῖν, ἀναζεύξας μετὰ πάσης
δυνάμεως διὰ τῆς Σελινουντίας δυσχωρίας
ἦλθεν εἰς τὸν Πάνορμον.

Hasdroubal, the Carthaginian general, criticised by his own people for not waging war, marched with the entire army through the Selinountine rough ground [and] arrived at Panormos.

⁵ The date of *IG* i³ 11 has been hotly debated. A lower date (418/7) has also been advanced (a recent attempt claims by means of a laser beam to read worn parts of the inscription to support this date), though the earlier date seems the likeliest (see Henry [1992; 1993] for full discussion of these matters).

What is important here for the present purposes is the existence of an area of western Sicily known as the "Selinountine *dyskhoría*". The location of this *dyskhoría* is vaguely situated: from Lilybaion it was on the way to Panormos, which could be anywhere between these two points of the island. There is also the additional problem of chronology. When did the Selinountine *dyskhoría* come into being as a geographic entity? And is it legitimate to extend the term back to archaic times? Before trying to resolve the problems connected with this *dyskhoría*, we should first consider the archaeological and topographical evidence for the size of Selinous' territory, in order to establish the parameters of such a discussion.

II. THE ARCHAEOLOGICAL AND TOPOGRAPHICAL EVIDENCE

The archaeological evidence consists of the distribution of sites in the landscape.⁶ Most of the sites known have been subject to little or no excavation. As we have seen (ch. VI), much remains generally to be done on western Sicily's settlement patterns. Yet, in the meantime, where archaeological material can be combined with other clues, particularly documentary sources, we can begin to understand the political status of some of these sites, and of tentatively judging whether or not they formed part of Selinous' territory.

Certain and Possible Selinountine Sites

We begin with the Herakles dedication from around Poggioreale (discussed fully in ch. IX). This inscription implies the existence, in at least the early sixth century, of some sort of cult-place, perhaps a sanctuary, which may have served to demarcate the

⁶ Lack of archaeological evidence hindered previous generations of scholars from discussing Selinous' territorial expansion (compare the comments of Dunbabin 1948: 135; Bérard 1957: 247-248; V. Tusa 1962: 153). For the rapid advances in knowledge of the last two decades, compare the picture in Maddoli (1980: 17-18) and Graham (1982b: 168, 180) with that given below.

border with native sites to the north (fig. X.1).

In the mid-sixth century Selinous founded Herakleia Minoa, which lies some 40 km. from the *polis* centre (fig. X.1). Herakleia Minoa is located near the coast on the right bank of the river Halykos. Herodotos (v.46) calls Herakleia Minoa τὴν Σελινουσίων ἀποικίην ("the colony of Selinous"). The earliest settlement remains, though extremely scrappy, date to the end of the sixth century (De Miro 1965: 10). The necropoleis supply more information of the early history. Of the one hundred and fifty archaic tombs excavated (De Miro 1962: 145 n. 80), the earliest grave-goods belong to the 530-520 decade (De Miro 1962: 146); the evidence of the necropoleis, together with an Attic (?) lekythos sherd of the mid-sixth century, found through surface survey by Wilson and Leonard (1980: 225-226) at their site A4, could support the mid-sixth century foundation-date proposed by De Miro.⁷

Five Selinountine quarries have so far been identified; they encircle the *polis* centre at distances of up to 20 km. (fig. X.1) (the quarries are discussed below). The most distant quarry, the Cave Misilbesi near Menfi, was being exploited for architectural sculpture (temple Y's metopes) in the second quarter of the sixth century (see ch. VII); as Peschlow-Bindokat (1990: 11-12) has pointed out, Selinous did not use first the

⁷ As discussed in the preceding chapter, Selinous lost Herakleia Minoa sometime between 505 and 488, and so its location cannot be used as evidence for territory size after that range of dates. The eastern frontier has tentatively been placed at the river Verdura (*cf.* below). The discovery of MC pottery on the surface at the hamlet of Borgo Bonsignore, located a few kms. west of Herakleia Minoa (*cf.* *BTCGI* iv.136), led De Waele (1974: 13) to suggest that this was the original home of the Selinountine sub-colony, later moved to the present site of Herakleia Minoa. However, De Waele is incorrect to state that the oldest material, from both the necropoleis and settlement of Herakleia Minoa, dates only to the end of the sixth century. Had this been true, it would add some substance to his arguments, yet even so it must be borne in mind that we are dealing with surface finds of small quantity, which were brought to the attention of the Agrigento Superintendency by a local lawyer. As Wilson (1982: 97) cautions, "Further exploration is clearly desirable."

sources of stone closest to the city.

A Selinountine presence may also be detected at other sites, but in none of these cases can we combine secure evidence as in the foregoing cases.

At the modern town of Caltabellotta,⁸ perched on a mountain-top rising some 949 m. asl, recent archaeological exploration has revealed a very interesting picture (fig. X.1) (pl. 28). In contrada San Benedetto, west of the present area of habitation, native huts of circular shape were excavated, containing material of the Sant'Angelo Muxaro-Polizzello culture (Panvini 1988-89: 561-566). These new discoveries, together with rock-cut tombs discovered in the last century, provide clear testimony of a native settlement, which came into being in the eighth century. This native site was in contact with Selinous in the early sixth century, as a Selinountine terracotta statuette, found during surface reconnaissance, indicates (Papadopoulos 1981). In the second quarter of the sixth century contact seems to have given way to Selinountine domination, for the native settlement appears to have suffered destruction and Greek habitation imposed on top of it.⁹ Moreover, towards the end of this same century, a small three-roomed rectangular temple without peristasis was constructed; the structure belongs to a type very common at Selinous and elsewhere in Sicily (Panvini 1988-89: 566-572).

Even before these recent discoveries, Bejor (1975: 1292) and Papadopoulos (1981: 10-11) had already suggested that Selinous was responsible for the Greek presence at Caltabellotta, the latter scholar also pointing out the natural attractions such a "roccaforte" would have had for territorial control. However limited and provisional

⁸ The site has usually been identified with the Triokala/Triokalon of the ancient sources (Manni 1981: 238-239).

⁹ So Panvini (1988-89: 566): "...è apparso chiaro che il villaggio capannicolo dovette essere distrutto per l'impianto di nuovi ambienti nel momento in cui i greci ebbero il pieno controllo del sito."

Panvini's excavations were, the finds brought to light may confirm these earlier hypotheses.

The superimposition of Greek culture on a native settlement is also witnessed at Castello della Pietra (*BTCGI* v.103), situated 12 km. north of Selinous (fig. X.1). Two seasons of excavation took place on this naturally fortified hill-top site (not fully published, *cf.* Giustolisi 1985: 94). In two trenches (measuring 120 and 150 m.²), E. Tomasello (1978) uncovered a stratigraphic sequence stretching from prehistoric to mediaeval times. Of these strata of human occupation, those of sixth-century date were reported as follows:

Sono stati rinvenuti avanzi di case di abitazione, da attribuire con sicurezza all'insediamento dei colonizzatori greci sul sito, e di un edificio indigeno anteriore.... Lo strato relativo all'edificio indigeno, la cui distruzione (dovuta ad incendio: la terra è mista a cenere ed avanzi neri, carbonizzati) e conseguente crollo delle strutture murarie hanno dato luogo alla formazione di cumuli....
(E. Tomasello 1978: 5)

The excavator views this archaeological finding as adding "...precisazioni su problemi relativi all'espansione greca nell'entroterra selinuntino..." (E. Tomasello 1978: 6). This seems a reasonable conclusion to draw from the evidence.

A small necropolis has recently been reported at Erbe Bianche near Campobello di Mazara (Camerata-Scovazzo in S. Tusa [ed.] 1994: 16, as cited by Wilson, forthcoming). The tombs are mostly of the *a cappuccina* type, though rock-cut ones are also known, and given the necropolis' location close to Selinous and its Cava di Cusa quarry it is likely that we are dealing with a Selinountine rural necropolis.

The evidential basis of the sites that follow is for one reason or another slighter.

North-west of Caltabellotta is another strategically important site called Monte

Adranone, which rises to a height of 1000 m. (*cf. BTCGI* x.257-265) (fig. X.1) (pl. 29). The Agrigento Superintendency explored Monte Adranone over several field seasons, but only brief preliminary reports have so far been published (Giustolisi [1985: 120] draws attention to the lack of final publication). The ancient remains are spread over various terraces, which in antiquity were defended by fortifications; the lower terraces, on the outside of these fortifications, were the general location of the necropoleis. The native settlement of the Sant'Angelo Muxaro-Polizzello culture (De Miro 1967: 184; De Miro 1975: 127) is replaced, in the second half of the sixth century, by Greek settlement (De Miro 1967: 181-183; De Miro & Fiorentini 1972-73: 241-243). To this settlement belong the circuit wall built of roughly dressed stone, in parts surviving to a height of 6 m., and a group of hypogeic cella tombs, including the so-called "Tomba della Regina." The site was occupied until the end of the fifth century, when it was violently destroyed, perhaps in conjunction with Carthage's campaigns in Sicily (De Miro & Fiorentini 1976-77: 455).

The identity of the Greeks to whom this settlement was owed is obviously of crucial interest here. In this respect the excavators have been cautious.¹⁰ The reason for claiming that Monte Adranone belonged to Selinous is that it is the closest Hellenic element. Caution is required, however: for instance, the tomb type found at Monte Adranone is rare at Selinous itself (Pelagatti & Vallet 1980: 372), although it is very common at Megara Hyblaia (*cf. Holloway* 1991: 64). In any case, the identification of Monte Adranone's inhabitants may only be possible when the finds are published.

A necropolis of cremation burials was found earlier in this century near Santa

¹⁰ The excavators' opinion has ranged from "evidentemente ad opera di Selinunte" (De Miro 1967: 184) to "indubbiamente colonia selinuntina" (Fiorentini 1982-83: 180). Canzanella (1993: 221) finds this latter description too emphatic, though probably because she unfairly leaves out the adverb from Fiorentini's actual definition, giving the wrong impression in so doing.

Margherita Belice, located some 15 km. north of Belice river-mouth (fig. X.1). Camerata-Scovazzo (1978: 149-153) had to rely solely on Gabrici's excavation notebooks in republishing this necropolis, whose location and finds are today no longer known. The necropolis consists of fifteen cremations in urns placed in shallow pits. With regard to chronology, the presence of the serpentine fibula establishes a *terminus post quem* around the mid-ninth century; there were also some iron items amongst the grave-goods. Camerata-Scovazzo (1978: 150-151) points out that the features found in this necropolis can be paralleled in the seventh-century necropolis at Butera near Gela, and suggests that the cremation rite, very rare in native burial practices, was introduced to Santa Margherita Belice by Greeks in the seventh century. It is logical to connect this with Selinous (Domínguez 1989: 406), though additional confirmation is clearly needed.

North-east of Sciacca excavations in the grottos on Monte San Calogero uncovered (unspecified) sixth-century finds still to be published (Bejor 1975: 1295 n. 84) (fig. X.1). The nature of this human presence awaits clarification. Bejor (1975: 1295) has argued that the Latin sources which ascribe city status to *Thermae Selinuntiae* are confusing the latter with *Thermae Himeraeae* on the north coast. On present evidence nothing indicates that in pre-Roman times *Thermae Selinuntiae* "...sia mai stata una vera e propria città".¹¹

Areas Outside Selinous' Territory

Another way to define the size of Selinous' territory is considering areas which can be shown not to have belonged to the city. I begin with the native settlements along Selinous' northern frontier.

¹¹ For Roman Sciacca, compare Wilson (1990: 228): "...the archaeological topography of ancient Sciacca is totally unknown."

The impression one gets from the archaeological and written sources is that these native sites, although some show signs of hellenisation, were politically independent of Selinous (for these native sites, see ch. VI). The evidence is clearest with Segesta, which, allied with Phoenicians, was at war in 580-576 BC with Selinous (ch. IX). This incident could indicate Segesta's political independence, reinforced and perhaps made possible via the Phoenician alliance. Such an alliance existed throughout Segesta's history. Segesta's culture, albeit receptive to hellenisation, always remained native, and when we combine these political and cultural characteristics, it is unlikely that Segesta ever formed part of Selinous' territory properly speaking. The situation at Entella and Halykiai may have been similar. At the former we find typically native burial practices and a city wall in the sixth century. These same features are also found at nearby Poggioreale (possibly ancient Halykiai), where excavations have also revealed use of the native language. Although all these features could theoretically exist in a society subject to Selinous, it is here tentatively assumed, particularly on the analogy of Segesta, that these native settlements marked the northern frontier with Selinous.

Selinous' eastern boundary can be defined primarily by the actions of neighbouring Akragas. As discussed in the preceding chapter, Theron's seizure of Herakleia Minoa may have been part of a larger plan of territorial acquisition, which from the coast proceeded up the Halykos river-valley. The border between Selinous and Akragas would certainly have moved as a result of the take-over of Herakleia Minoa. It makes sense that the new border would have been created in the most natural way possible, namely by using rivers. I propose that the Verdura river-valley, a perennial watercourse which flows to the east of Caltabellotta, may have become this territorial marker. Local topography also renders it improbable that Selinous' territory could have extended north beyond the Verdura river-

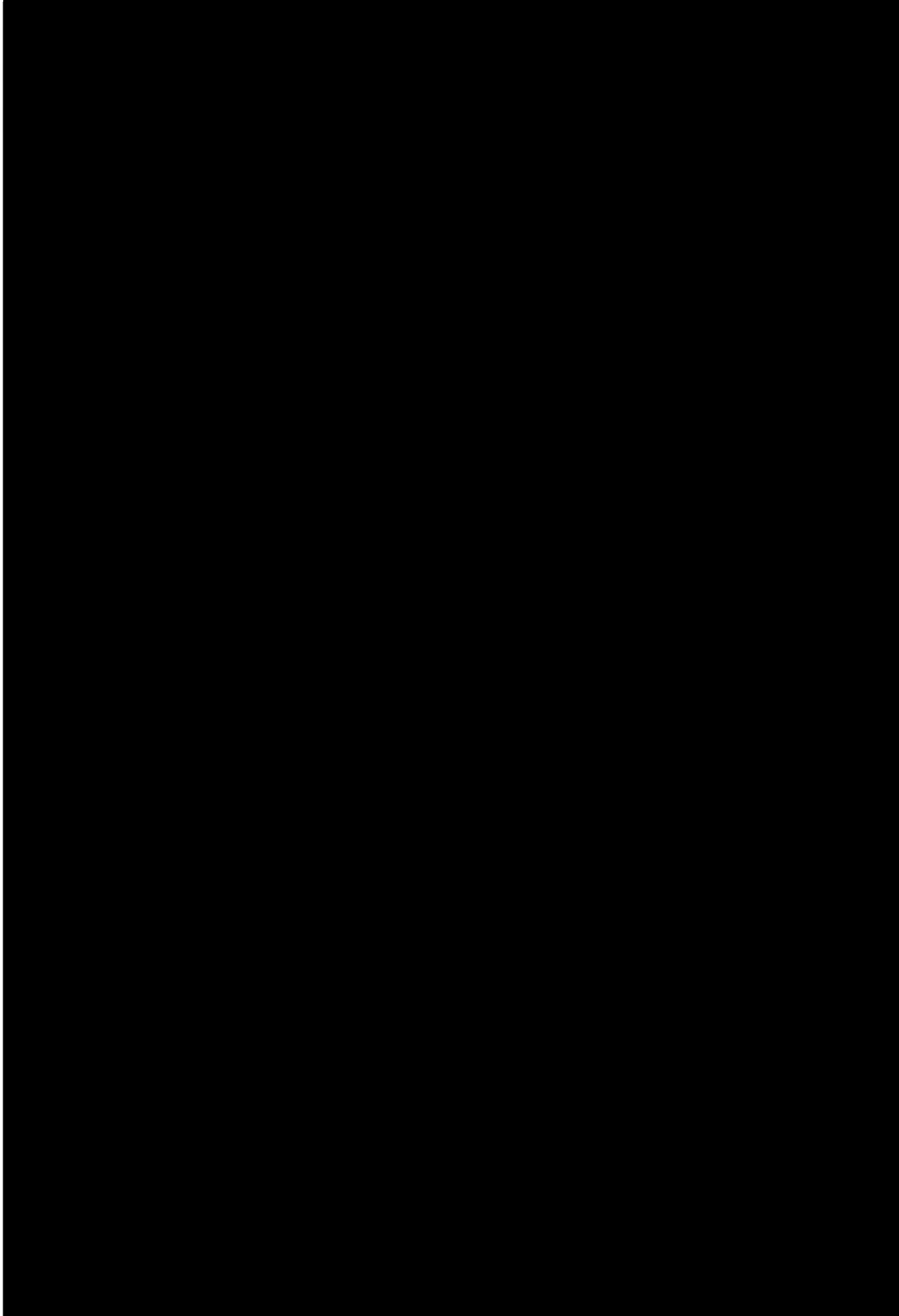


Fig. X.2. The general extent of Selinous' territory in proportion to the rest of Sicily (after King 1973: 22, map C with minor adaptation).

valley, since the Sicani mountain range acts as a formidable barrier, rising to considerable heights.

The available evidence permits a first step to be taken in defining the size of Selinous' territory. The territory may have comprised the area between the rivers Mazaros and Verdura, acting respectively as the western and eastern borders, and the native sites to the north: an area something to the order of 60 km. in width by 25 km. in depth (1,500 km.²), or up to 6% of Sicily's total land surface of 25,708 km.² (fig. X.2).¹² The written and archaeological sources suggest that the territory took on this basic shape by the end of the sixth century.

Let us return now to the location of the Selinountine *dyskhoría*, which has received little attention (Manni 1981 included), Piraino (1959: 169-170) being the notable exception:

La Σελινουντία δυσχωρία di cui parla Diodoro sarebbe costituita dai passi che da S-O portavano a Palermo attraverso le montagne di Alcamo, S. Giuseppe Jato e Piano degli Albanesi, ma non si potrà escludere che proprio attraverso la valle del Fiume Freddo i Selinuntini fossero allora giunti alle agognate rive del Tirreno nella Piana bagnata dal golfo di Castellammare.

Piraino clearly assumes that the Selinountine *dyskhoría* was a geographic feature of Selinous' territory in archaic times. However reasonable that may be, no certainty is of course possible. But, even assuming so, how plausible is Piraino's placement of the *dyskhoría*? In view of recent advances in the archaeology of western Sicily, it seems doubtful the *dyskhoría* could have been as far north as stated: native settlement, seemingly

¹² On this reckoning, Selinous' territory would have been slightly smaller than Syracuse's without Kamarina, which measured about 1,680 km.² (Dunbabin 1948: 107; G. Di Stefano 1987a). Such territory sizes constituted the upper end of the spectrum in Greek Sicily.

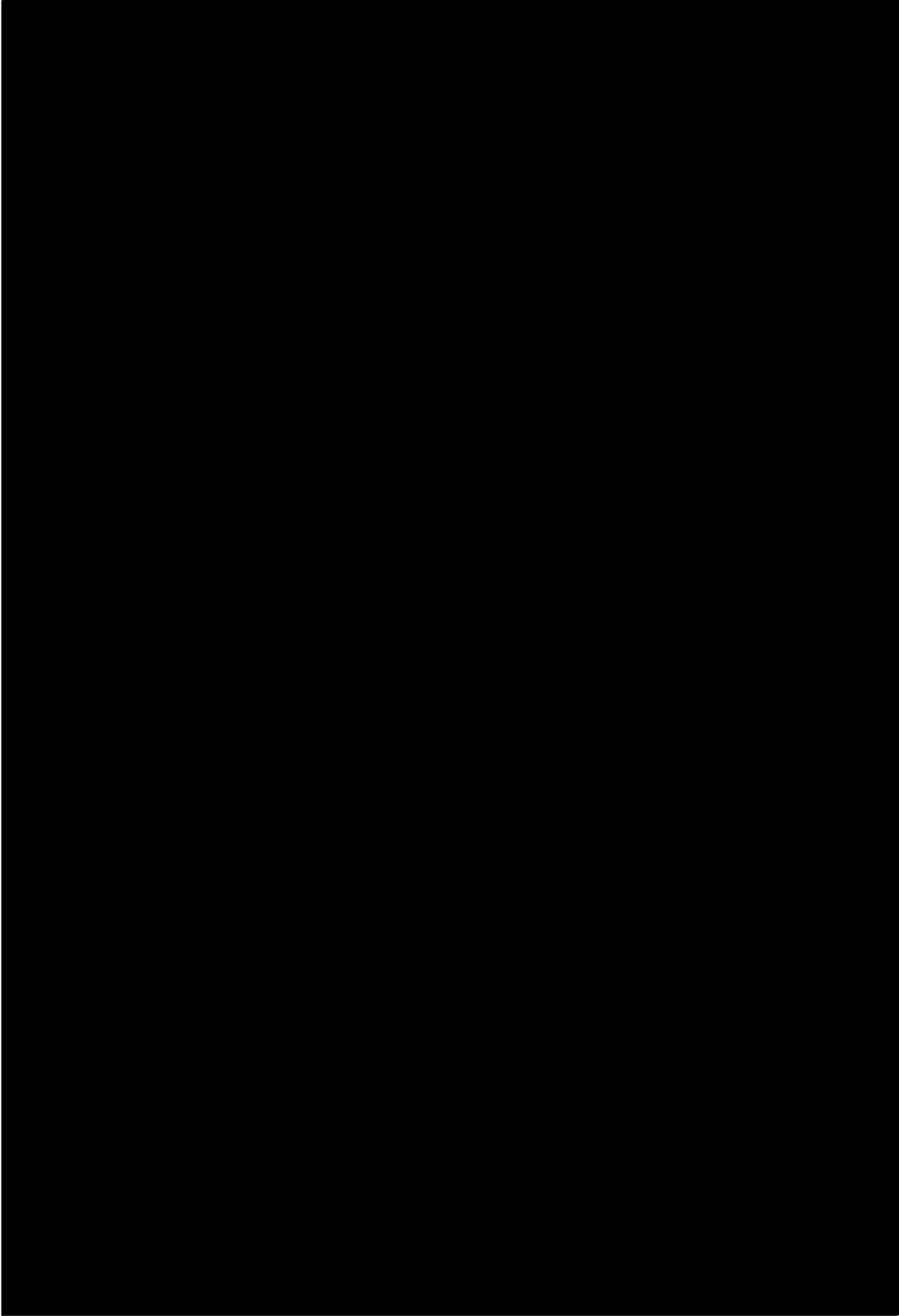


Fig. X.3. Geological map of Sicily (after *AHI* i.392, fig. 65).

politically independent, occurs in the very areas singled out. The passes mentioned by Piraino could have been entered from anywhere to the south as well (as Ruge 1923: 1280 had thought). Even if one were intent on retrojecting Diodoros' testimony to archaic times, the Selinountine *dyskhoría* cannot stand alone as direct evidence of the size of Selinous' territory; it is only possible to situate it in the most general terms after all the other evidence has first been examined.

The Natural Environment

Most of the coastline from Mazara del Vallo to Sciacca is low, fringed with rocks, and sometimes sandy (fig. X.3); in some places the coast rises slightly or steeply, as is the case west of Sciacca.¹³ The plains beyond the coast are largely made up of wide terrace-like steps, which gently slope inland and rise gradually, often to heights between 30 and 60 m (pl. 30). Around Mazara del Vallo and the mouth of the river Platani these plains are flatter and gently rolling. At a distance of roughly 3-4 km. from the coast, the plains end, giving way mostly to Triassic limestone plateaux, which on the whole continue the terrace-like tiers of the coastal plains. The major difference between the two is that the limestone plateaux are more rolling and rise to greater heights, generally in the range of 300-400 m. (pl. 29). North-east of Sciacca the limestone plateaux are replaced by limestone mountains, some reaching over 1000 m. in height. Deeper into the hilly interior the limestone formations encounter Miocene clays, with the occasional sandstone and conglomerate as well. The claylands consist of small rounded hills, separated from one another by wide river-valleys; roughly speaking, relief averages heights of 600 m. Most

¹³ On the region's geology, see Philippson (1934: 331-333, 338-339); *AHI* (i.158-161, 394-396); Walker (1967: 219).

of Selinous' territory would have comprised land in the 100-300 m. range (fig. X.2).¹⁴

There are numerous watercourses and springs in the territory (for the springs, see Pollastri 1948-49: i.114-119, 200-211, 226-229). Chief amongst the watercourses is the river Belice (perennial), which empties into the sea east of Selinous. The Belice is 76.5 km. long, and its catchment basin drains 963 km.² (Cumin 1944: 60). To the west of Selinous is the Modione, running for 27 km., with a catchment basin of about 113.53 km.² (Cumin 1944: 60). East of the latter are two more watercourses. The first that is met after the Modione is the river Delia, which originates near Vita, some 43.5 km. from the coast; its catchment basin drains 285.52 km.² (Cumin 1944: 59). Further west is the Mazaro, of similar characteristics to the Delia. East of the Belice there are only two noteworthy watercourses. Roughly halfway between Selinous and Sciacca is the Carboi (27 km. long), originating in Monte Genuardo near Monte Adranone. More important hydrologically is the Verdura, which runs for 53 km., draining an area of 421.53 km.² (Cumin 1944: 61). Of all these watercourses, the Belice and Verdura are most active in summer because they are fed by enough springs to be perennial. The others suffer severe desiccation.

Assuming a largely unchanging climate since antiquity, Selinous would have experienced the typical Sicilian climatic pattern, *i.e.*, coolish, wet winters, and hot, dry summers. For south-west Sicily the monthly mean temperature is over 10° C in coastal areas, with temperatures lowering in the interior (Cantù 1977: 140). In July the coast experiences average temperatures of greater than 26° C, which naturally decreases further inland (Cantù 1977: 141). Western Sicily receives about 2,200 hours of sunshine per

¹⁴ See Pollastri (1948-49: i.116-119, 202-211, 226-229) for detailed analysis of the altitude of landforms.

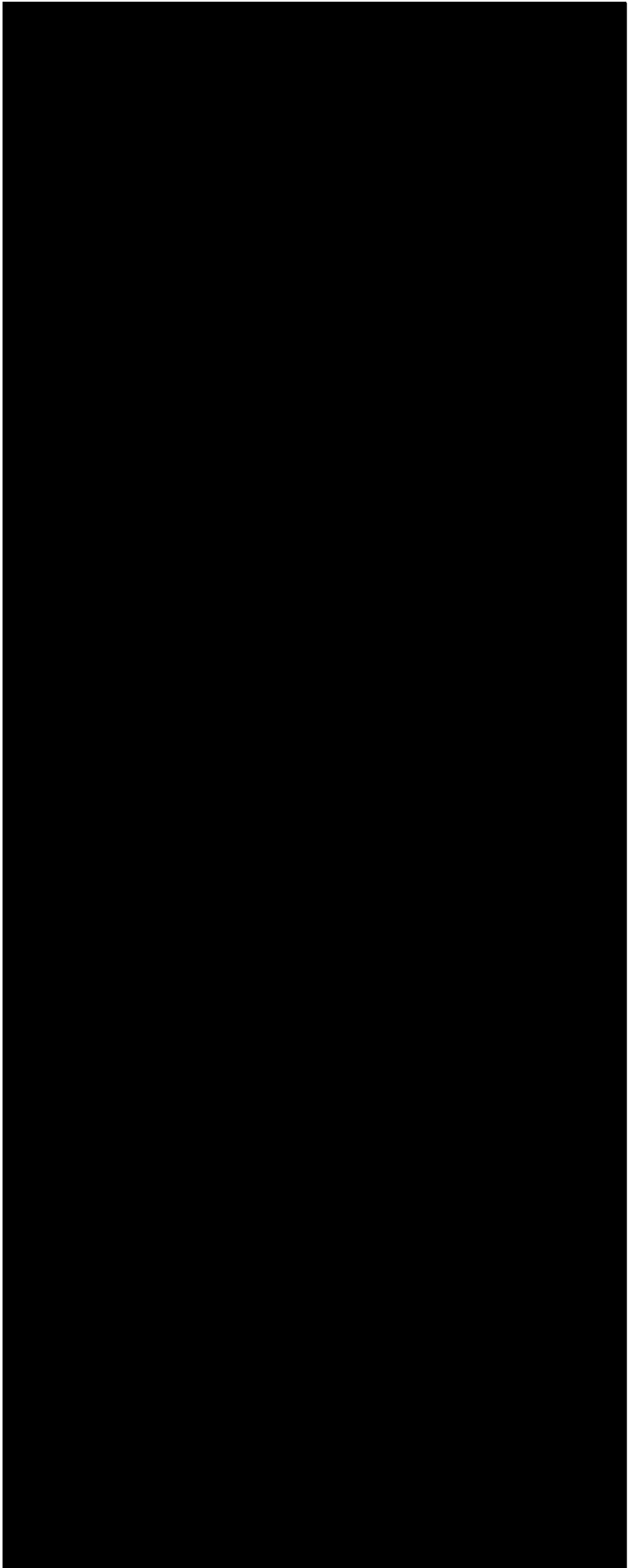


Table X.1: Variation in annual rainfall (in mm.) for the decade 1931-1940: selected western Sicilian sites. (Source: Pollastri 1948-49: ii.48-51)

annum (Milone 1959: 53; Walker 1967: 216 n. 2). South-west Sicily has 40 to 60 rain-days on the coast and 60 to 100 rain-days in upland areas (*AHI* i.426-427 with fig. 76). The amount of rain that falls per annum averages under 500 mm. on the coast, and between 500 and 750 mm. inland (Cantù 1977: 142-143 with fig. 6). Rainfall statistics for the 1931-1940 decade suggest that the degree of inter-annual variability was not enormous (table X.1). The yearly average could have supplied more than enough water for a good crop. As elsewhere in Sicily, almost all rain (*ca.* 95%) falls in autumn, winter, and spring, especially between October and March (*AHI* i.424-426; Pollastri 1948-49: ii.46-51; Milone 1959: 46-49). Violent downpours are known in the autumn, but they rarely bring agriculture-threatening phenomena such as thunderstorms and hail (*AHI* i.432; Cantù 1977: 150). Other threats, like snow and frost, occur very rarely in general, and are non-existent in non-mountainous areas (*AHI* i.422, 427-428).

An idea of the proportion of arable land potentially available to Selinous may be gained from modern assessments of Sicilian agricultural capability. The *AHI* (iii.30, fig. 7) says that between 50 and 70% of the total land surface is arable. More detailed studies record higher figures: in Pollastri's (1948-49: iii.60-61, 74-79) study arable land comprises between 70 and 80% of all land, and in Milone's (1959: 74-75) about 96%.¹⁵ A 1961 land-use survey records that just over 86% of the arable land in the Trapani and Agrigento regions was being used for arable agriculture (Antonietti & Vanzetti 1961: 81 table 45).¹⁶ Selinous' territory may have similarly been somewhere between 70 and 95% cultivable.

¹⁵ The range from Pollastri is based on the average of his zones II, III, VI, LI, LIV, and the Milone figure on his zones II, VI, LI, and LIV.

¹⁶ I have added together the first seven columns of the Trapani and Agrigento sections of Antonietti and Vanzetti's table 45 (478,298 ha.), and divided by the total of arable land (554,162 ha.).

Selinous, therefore, appears to have had great agricultural potential. If we assume that its territory was about 1,500 km.² in size and consisted of between 70 and 95% arable land, then Selinous' territory could have theoretically supported, even on the most conservative estimate, between, say, 96,000 and 131,000 people.¹⁷ The size of the *polis* centre's population was estimated earlier (ch. VIII) to be in the range of 6,664-10,000 people; little is still known of rural population. Further work will certainly contribute to clarifying generally Selinous' demographic history, but it is certainly reasonable at present to think, on the basis of the foregoing carrying and carried capacities, that Selinous may have had more agricultural resources than it actually required.

This high proportion of arable land today leaves little left over for pastoralism, a general problem for Sicily (see ch. V for the south-east). Around WW II much of western Sicily was said to have consisted of 10-30% of pastures and grazing lands (*AHI* iii.54, fig. 16), and in 1961 about 11% of agricultural land in the Agrigento, Trapani, and Palermo regions was being used for this purpose (Antonietti & Vanzetti 1961: table 45).¹⁸ We should not, however, extend these modern data to the past. As we have already seen (ch. V), Sicilian vegetation has been altered drastically in recent centuries, resulting in the destruction of pastures and grazing lands. We must envisage better conditions for pastoralism in antiquity, as the ancient sources suggest, even if we cannot say for certain

¹⁷ I have calculated this figure as follows: arable land equals 105,000-142,500 ha. out of a total of 150,000 ha. Half was left fallow annually, leaving 52,500-71,250 for cultivation. The yield per hectare is put at 0.624 metric tonne, producing a total of 32,760-44,460 tonnes, 20% of which is kept for seed. This leaves 26,208-35,568 tonnes for consumption, from which a further 15% is subtracted as waste (new total: 22,276.8-30,232.8 tonnes, or 22,276,800-30,232,800 kg.). Biological subsistence per person per annum is reckoned to be 230 kg., which allows 96,856-131,447 people to be supported.

¹⁸ This figure was arrived at by adding together the information in column eight (116,152 ha.), and dividing it by the total amount of agricultural land (1,051,855 ha.).

what those conditions were.

As for other natural resources, metal ores are not at all represented in Selinous' former territory. Some "gaseous phenomena" do exist (King 1973: 67 map E), but they were certainly not exploited in antiquity.

Trees must have been more abundant in the past than today. The results of a small field survey conducted north of Mazara del Vallo seem to indicate the area was still covered in forests in the fourth century BC (Fentress *et al.* 1986: 80, 83). The discovery of deer bones in archaic and Roman levels at respectively Poggioreale and Castagna (near Herakleia Minoa) also suggest the existence of forests (Wilson 1990: 6 with n. 15).

The Economy

I. ARCHAEOLOGICAL EVIDENCE

Stone and Marble. The study of stone and marble at Selinous has recently seen considerable advances.¹⁹ Selinous had a good selection of stone locally available which could meet most of the city's building needs; only marble was imported.

Five of Selinous' quarries have so far been identified: 1) on the Manuzza plateau; 2) four km. to the north at Baglio Cusa (or Cave di Barone); 3) at Rocca (or Cave) di Cusa, south of Campobello di Mazara; 4) the Cave di Belice on west bank of the namesake river; 5) at Misilbesi near Menfi (fig. X.1). There has been some analytical work done on the stone found in these quarries. It has, for instance, been demonstrated that the stone for the metopes and statues came only from the Cave Misilbesi di Menfi

¹⁹ V. Tusa (1983) on the stone and marble sculpture; Alaimo and Calderone (1984) on marble provenance; Peschlow-Bindokat (1990) on the Cave di Cusa. The first and last of these studies also contain overviews of Selinous' quarries and some petrographic analyses.

(Carapezza *et al.* in V. Tusa 1983: 40). Temple G's stone, by contrast, came from several different quarries (Hein in Peschlow-Bindokat 1990: 63). The main sources of stone used in the monumental temples were the Cave di Cusa and the Cave di Barone (Peschlow-Bindokat 1990: 11).²⁰ The stone in the Manuzza quarry was of inferior quality, and appears only to have been used for the city wall (Peschlow-Bindokat 1990: 11). Although there is room for further research of this sort, it is already obvious that some quarries were more intensively exploited than others.

The origins of Selinous' marble has been studied via trace element and isotope analyses. Preliminary study placed the marble's provenance in the Aegean (Ephesos/western Anatolia and Paros) (Alaimo & Calderone 1984), but this range has now been narrowed down to Paros (Gorgoni *et al.* 1993: 53). The importation of marble also appears to have brought with it the artistic influences discernible in some of Selinous' art (see ch. VII above). Marble first appears in the late seventh/early sixth century as lamps with human protomes (V. Tusa 1983: 132-134 nos. 41-44, 186-187); the latest archaic marble finds belong to the head, hands, and feet of the female figures depicted in temple E's metopes (V. Tusa 1983: 119-123 nos. 12-15). The fragmentary nature of much of the marble remains does not allow quantification.

Clay working. Local pottery production began in the last quarter of the seventh century (Fourmont 1992: 61-62). Only recently have remains of production areas come to light. These workplaces were discovered on the acropolis in blocks EE2 and FF1, and consist of traces of piriform kilns, surrounded by drying and fuel storage areas (Fourmont

²⁰ Most of the stone for temples C, F, and G came from the Cave di Cusa, whilst the Cave di Barone largely supplied the material for temple A, D, and E. Compare Carapezza *et al.* in V. Tusa (1983: 40): "L'orizzonte geologico delle Cave di Cusa sembrava fatto per soddisfare le ambizioni dei progetti architettonici."

1992: 60).

A wide range of shapes is known from settlement and funerary contexts, with a few sherds recognised amongst the votive pottery of the sanctuary of Demeter Malophoros.²¹ The fabrics are yellow, cream, and green in colour, and the usual variety of shapes, sometimes with plain bands and waves as decoration, was produced.²² Besides pottery, terracotta statuettes were also being made in the industrial area of block FF1, as the discovery of two moulds clearly indicates (Fourmont 1991: 8-11, 16-17).²³ Generally many objects were fashioned out of clay, and they were of high quality.²⁴ Some of these clay objects, particularly pottery, travelled to sites in Selinous' hinterland.

Metals. The appearance of raw or worked metals at Selinous indicates exchange and contact with the outside world. A metalworking quarter has been found in block FF1, close to the ceramic production area just discussed. The evidence for this identification is a stone mould used for bronze casting (Fourmont 1993), as well as metal slag and numerous objects in bronze, iron, and lead (Fourmont 1991: 28-29).

Of the metals used at Selinous, bronze is most plentiful, used for such items as figurines, vases, pins, jewellery, weapons, and tools.²⁵ Iron was used for weapons and

²¹ For finds from settlement contexts, see de la Genière (1975: 97) and Rallo (1978: 100); for the funerary context, see Rallo (1982), and Dehl-von Kaenel (forthcoming) for the Malophoros material.

²² For fuller details on these matters, including influences, see Fourmont (1992: 60-62, 64).

²³ Dewailly (1992) has recently studied the statuettes from the sanctuary of Demeter Malophoros.

²⁴ For loom-weights (found in tombs): Kustermann Graf (1991: 104, 111, 119).

²⁵ For finds of bronze, see Gabrici (1927: 355-366) from the Demeter Malophoros sanctuary; Rallo (1982: 213-214 fig. 17) from the Manuzza cemetery; and Kustermann Graf (1991: 103, 110-112) for the Gaggera cemetery. Bronze coinage arrived in the later fifth century (see below).

tools (Gabrici 1927: 368; Kustermann Graf 1991: 111-112). Silver was seldom employed in other than coinage.²⁶ A coin hoard found at Selinous contained four fragmentary silver ingots (Arnold-Biucchi *et al.* 1988: 26-28), analysis of which points to a Spanish origin (forthcoming in *Metallurgy in Numismatics* volume 4).²⁷ Lead appears more rarely than any of the previous metals, used for some figurines (Gabrici 1927: 368) and curse tablets (Arena 1989: 59-73, nos. 59-71; Jameson *et al.* 1993). The only known instance of gold is the sixty talents mentioned in *IG* xiv.268.

Coinage. Himera and Selinous were the earliest Greek cities in Sicily to mint coins. Whereas Kraay (1984) has produced a fine study of the archaic coinage of Himera, a similar monograph for Selinous has yet to be done.²⁸ The lack of systematic study of the archaic coinage of Selinous has left several important matters unresolved. The coinage's initial appearance is one such matter. Milne's (1938: 51) date of "about 600" for this event is too high in view of recent advances in Greek numismatics (Carradice & Price 1988), and more plausible theories place the arrival of coinage at Selinous in the second half of the sixth century. But can we date it more closely than within a half-century? Two clues suggest a date between 550 and 530, and this range seems to have become the

²⁶ Compare Gabrici (1927: 344) on the Malophoros finds: "L'argento è metallo adoperato, in misura limitatissima, per oggetti di ornamento personale."

²⁷ For the recent discovery of a silver ingot, of unknown provenance, in the Punta Braccetto shipwreck near Kamarina, see G. Di Stefano (1993-94: 127), who notes that "Si tratta, con tutta probabilità, della prima e più antica testimonianza commerciale di un lingottino di argento in Occidente."

²⁸ "Selinus ist die einzige sizilische Münzstätte des VI. Jahrhunderts, für die bislang keine Monographie vorliegt" (Boehringer 1984-85: 116). Arnold-Biucchi (1987; 1992) is undertaking such a needed study.

working consensus.²⁹ There is first the connection with the coinage of Himera, whose beginnings Kraay (1984: 15-16) has dated to 550-540; partly on these grounds, therefore, the Selinountine material must similarly be located in time.³⁰ Second, although the initial purpose of Selinous' coinage has not been examined in depth (*cf.* Arnold-Biucchi 1992: 18), one of the reasons scholars have put forth has been Kraay's (1964) influential theory that coinage initially served to make various kinds of payments.³¹ One of the occasions when such payments would have been made is in connection with the temple-building which was occurring at this time. It is believed, therefore, that coinage was introduced to pay for Selinous' temples (Cutroni Tusa 1975: 158-159; Østby 1987: 151; Arnold-Biucchi 1992: 18).

Another, though more troublesome matter is the debate over the weight standard used by Selinous. Cutroni Tusa (1975: 162-163; 1982) has argued forcefully for the Korinthian standard, while admitting that in the absence of any published Selinountine drachmae the question must remain open. A few years later, Carbè (1986: 9) published one Selinountine drachma coin (weighing 4.15 grammes), claiming that Selinous minted on the Euboic-Attic standard. However, as Cutroni Tusa (1988-89: 370-371) has rightly pointed out, the existence of one such Selinountine drachma cannot resolve the matter, raising just as many open-ended questions. It thus seems best to leave the matter of

²⁹ Cutroni Tusa (1975: 158); Boehringer (1984-85: 118-119); Østby (1987: 151); Arnold-Biucchi *et al.* (1988: 12-13); Holloway (1991: 121). Also to be noted are the preliminary results of Arnold-Biucchi's (1987; 1992: 17) intended corpus, that the *terminus ante quem* of the first phase of archaic coinage should be set at 515-510.

³⁰ Carbè (1986: 4-5), making a stylistic value judgement, believes Selinous' coinage is more archaic and accordingly dates it a decade earlier.

³¹ The origin of Akragas' coinage is thought to have been due to the same purpose (Stazio 1992: 228).

weight standard open until more evidence becomes available: Arnold-Biucchi (1987; 1992: 15) hopes to fill this gap.

The coinage's relative and absolute chronology is still unclear. Coins with on the reverse an incuse square divided diagonally into ten or twelve (or sometimes eight) triangles appear to date before 515-510, and those with the *selinon*, or parsley leaf, type added to the reverse incuse square are later.³² The archaic coinage continued until the 470-450s (Arnold-Biucchi *et al.* 1988: 11-12; Arnold-Biucchi 1992: 17), followed by tetradrachms (Schwabacher 1925; Cutroni Tusa 1975: 161-162). These chronological benchmarks should be regarded as approximate, since Selinountine coins rarely travelled outside their home area, and few are consequently ever found in hoards (*cf.* below). The denominations of the two archaic groups are usually considered didrachms; smaller denominations are rare (Arnold-Biucchi 1992: 14-15).

Imported Greek coins at Selinous derive from two hoards.³³ One of these hoards is unpublished, having received a brief report based on "unofficial sources", which leaves the other hoard of 165 silver coins, from eight mints, as evidence (Arnold-Biucchi *et al.* 1988).³⁴ A single hoard is hardly sufficient to base inferences about economic activity (Crawford 1983: 191, 201), but the origins of the coins in this hoard are nevertheless of interest in this respect (see below). Much the same holds true for the Selinountine coinage

³² Boehringer (1984-85: 116); Arnold-Biucchi (1987; 1992: 14-15); Arnold-Biucchi *et al.* (1988: 11).

³³ Another hoard, dated to 435, was discovered at Mazara del Vallo (Thompson *et al.* 1973: no. 2084; *BTCGI* vii.466-467); it is made up exclusively of Sicilian Greek issues (see below for further discussion).

³⁴ The unpublished hoard, comprising about 234 coins, is mentioned by Cutroni Tusa (1988-89: 397-398 n. 8); the mints of Syracuse, Akragas, Korinth, and Selinous are represented.

found elsewhere, although here too the material is scanty and little studied to permit firm conclusions (see below).

Selinountine coinage supplies some iconographic evidence of the economy. Most notable in this regard is the parsley leaf, which became the city's emblem, the colony having named itself after this readily available resource. Bulls appear on late classical coins (Holm 1870-98: iii, pl. iv.8; Plant 1979: no. 1053). The economic importance of oxen to Selinous may be supposed for purposes of agriculture and temple-building, which required large numbers of such animals.³⁵ The large open and well-watered areas available in Selinous' territory would have provided prime conditions for the maintenance of oxen.

II. WRITTEN EVIDENCE

Written sources provide direct and indirect evidence of economic activity.³⁶

Wheat. Selinountine wheat, characterised by its thick haulm, is singled out by Theophrastos (*CP* iii.21.2) as a variety which requires much food, and hence should be planted in good soil. Pliny (*NH* xviii.12.64) repeats this information.³⁷ Theophrastos' treatise was written in the late fourth century/early third century; although Selinous had been destroyed in the late fifth century, life still continued there in Theophrastos' day. Other evidence suggests the importance of grain before Theophrastos. The reverse of Selinountine tetradrachms, first minted in the second quarter of the fifth century, provide

³⁵ Further iconographic evidence exists, but this will be considered below with the literary sources.

³⁶ Very little of this written evidence was included in Dunbabin (1948: ch. vii).

³⁷ Theophrastos is cited as a source for book xviii of the *Naturalis Historia* (see Meiggs 1982: 21-28 on Pliny's lists of sources).

iconographic evidence of ears and sheaths of grain.³⁸ The placing of such symbols on the city's coinage is certainly indicative of its importance in the economy. In 415 Nikias claimed that Selinous supported itself from locally produced grain (σίτῳ οἰκεῖω) (Thuc. vi.20.4). To judge by this evidence, grain seems to have been a prominent commodity by at least the early fifth century.

What does a well-known variety of wheat imply about agricultural conditions at Selinous? Theophrastos records that the variety in question required a good soil to thrive, so that its characteristic thick haulm could mature fully. Selinous had obviously the right conditions. Furthermore, that this distinctive variety of wheat was known to other Greeks may also imply that the variety was not the same one grown all over Sicily, since Selinous alone is singled out as the "type site" of this famous variety.

Selinountine earth. Although four different ancient writers refer to this substance, few details are provided. Of the two Greek writers mentioning Selinountine earth, Dioskourides (v.155) describes it as white, shiny, and easily broken down because of its moistness; women used it as a cosmetic. Galen (xii, pp. 180-182 Kühn) reiterates this information and adds that Selinountine earth also served medicinal purposes, as a cure for ulcers and inflammations. The Roman authors who speak of this white earth add no new information to previous descriptions, yet record some other uses. Vitruvius (vii.14.2) and Pliny (*NH* xxxv.46.7-8) suggest that "creta Selinusia" be mixed with indigo when supplies of the latter are low. In another passage Pliny (*NH* xxxv.194.3-5) says that "terra Selinusia" dissolved in milk can be used to touch up whitewash on plastered walls. In the earlier part of this century, a similar white chalk substance was still being commercially

³⁸ Poole (1876: nos. 44-48); Hulot and Fougères (1910: 30); Schwabacher (1925: 13-14. Q5-12, 25 Q14; Lacroix (1965: 111).

exploited at Sciacca (Hulot & Fougères 1910: 30).

Horses. Horses were kept by the richer members of Selinountine society. The earliest testimonies belong to the first half of the sixth century, and consist of a terracotta votive offering of a mounted warrior from the sanctuary of Demeter Malophoros (Gabrici 1927: 220) and a horse buried in a tomb in the Gaggera necropolis (Kustermann Graf 1991: 105). The existence of cavalry is attested at the battle of Himera (Diod. xi.21.4-5), during the Athenian expedition to Sicily (Thuc. vii.1.5), and at the time of Selinous' destruction (Diod. xiii.54.3). In none of these surviving accounts are the number of horses specified. Horses are also depicted on Selinous' early classical tetradrachms (Spence 1993: 30-32). The large open plains and watercourses in Selinous' territory could easily have provided the requisite natural conditions for horse-breeding, as elsewhere in Greek Italy and Sicily (Frederiksen 1968: 10). It is reasonable to think that some of these pasture lands were owned by Selinous' well-to-do.

Sheep (?). In a brief article Mantzoulinou-Richards (1986) has re-examined the cult of Demeter Malophoros, arguing that the goddess' epithet should be translated as "sheep-bringer" (not "apple-bringer"). If this view is valid, it has a knock-on effect on the economic activity we envisage behind the cult of Demeter Malophoros at Selinous. But is Mantzoulinou-Richards' case justified? The arguments adduced centre around two points: the environmental viability of growing apples in Old Megara,³⁹ and the importance of sheep to the cult of Demeter and to Greek society at large. The latter point is not open to debate, but the rôle of sheep specifically to Selinountine society needs to be investigated. Caution, therefore, is in order before accepting Mantzoulinou-Richards'

³⁹ It should be noted that she does not consider the physical environmental conditions of the cult where it is in evidence the most, that is, the Megarian colonial world.

sweeping argument with its attendant economic significance.

Dwarf-palm. Two Latin sources record the existence of the palm-tree at Selinous (Vergil, *Aeneid* iii.705; Silius Italicus xiv.200). For Sicily these references can only be to the well-known dwarf-palm, which appears on classical coins (Dunbabin 1948: 222-223) and mentioned in the ancient literature (Theophrastos *HP* ii.6.11; Pliny *NH* xiii.9.39; cf. Scramuzza 1937: 275).⁴⁰

III. FILLING OUT THE PICTURE

Even when combined, the archaeological and written evidence does not provide a complete picture of Selinous' economy. The greatest possibilities for improving the evidential basis lie in developing the archaeological record. In the meantime, by looking at more recent information, we can tentatively suggest other environmental and economic possibilities that Selinous may have exploited.

In the post-war period, the soils of much of Selinous' former territory were classified as well-suited to cereals, vines, and fruit and olive trees,⁴¹ and the land has been put to these uses (as seen in Milone's [1959] land-use study).

Milone (1959: 104-105) records that about 30% of the agricultural land in the Agrigentino and Trapanese was planted with cereals (some 164,495 hectares out of a possible 550,300). The yield retrieved amounted to 2,016,200 quintals, representing one-quarter of all Sicilian production. South-west Sicily is well known for its wines,

⁴⁰ Hulot and Fougères (1910: 30) cite Athenaios (ix.369e-f) as showing that cabbage was grown at Selinous. Although possible, they misread the ancient passage in question: Athenaios says that there are three varieties of cabbage, and of these the parsley-leaved (ἡ δὲ σελινόουσσα) is one. This is not necessarily a variety from Selinous itself.

⁴¹ Following Pollastri's (1948-49: i.52) classification, soil types 4-7, those favourable for cereals and vines, are widely distributed in the region.

particularly the Marsala variety (Milone 1959: 114-115; King 1973: 113-114). The Trapanese alone produced around 4,976,900 quintals, or 47% of all of Sicily's output, with just over 31% of land in the province given over to the vine (Milone 1959: 125). Olives are also important in the same area, with just over 7% of land in the Agrigentino and Trapanese planted with it. These two regions supplied 673,100 quintals, almost 27% of total Sicilian production (Milone 1959: 138-139). The town of Castelvetro, some 15 km. north of Selinous, is a regional olive oil production centre (Milone 1960: 395-396; King 1973: 105). Over one-quarter of Sicilian almonds came from the Agrigentino and Trapanese: 41,229 hectares, or 14.6%, of all agricultural was devoted to this crop, producing 242,100 quintals (approximately 28.8% of Sicily's output) (Milone 1959: 147-148). The Agrigentino and Trapanese produced very little of Sicily's citrus fruits (Milone 1959: 186, 189, 193). Vegetables and tree-crops were planted in the remaining agricultural land (Milone 1959: 151-168).

Fishing is a major industry in the waters off south-west Sicily as well, with one-half of Sicily's fishermen concentrated in this part of the island (*AHI* iii.148; King 1973: 121). Mazara del Vallo is the hub of this activity. Catches include sardines, anchovies, mackerel, and particularly tunny, as well as some molluscs and crustaceans (statistics unavailable). Salt is also extracted from the sea. Sicily's main salt-pans are found along the western coast, especially around Marsala (*AHI* iii.184); annual production can amount to more than 20 tonnes. Rock-salt is abundant in the Agrigentino (see ch. VI).

On the whole, the livelihood of south-western Sicily still today derives from the exploitation of the preceding natural resources, upon which Selinous as well may have relied.

Trade and Exchange

The preceding section has touched upon aspects of trade and exchange between Selinous and the outside world. This subject will be fully dealt with here. The aims are twofold: first, to establish the contacts between Selinous and the wider world in order to determine possible economic outlets (parts I and II below), and, second, to set this discussion against a background of supply and demand (section III).⁴²

I. FOREIGN CONTACTS REPRESENTED AT SELINOUS

Contacts with the outside world are revealed by both archaeological and written evidence; the latter can sometimes yield insights into the nature of the contacts in question. The sources contain irremediable distortions, for contacts need not always be represented materially and the written record is patchy. Therefore, any discussion of Selinous' external contacts is from the start biased, strongly favouring what survives. Furthermore, the pottery, the major category of archaeological evidence, presents other challenges: most of the imported pottery from Selinous has never been published, and this impedes detailed discussion and completely rules out quantification.⁴³

Korinth. Corinthian pottery forms the largest single class of imports at archaic Selinous. These wares were imported essentially between the mid-seventh and mid-sixth centuries, and they are found in the settlement, cemeteries, and sanctuaries (Dehl-von Kaenel, forthcoming). The most common shapes belong to two main categories, namely "Trinkgefäße" and "kleinere Aufbewahrungsgefäße" (so Dehl-von Kaenel, forthcoming). The latter includes aryballoi, alabastra, amphoriskoi, and pyxides, and the former cups

⁴² Parts I and II will present the relevant material, which is analysed in part III.

⁴³ Compare Dehl-von Kaenel (forthcoming) on the pottery: "Zwar ist bisher nur ein sehr kleiner Teil der reichen Funde archaischer Zeit aus Selinunt vorgelegt worden."

(kotylai and skyphoi), kraters, and oinochoai. Numerous examples of plates are also known.

Korinthian coins have also been found at Selinous: 39 pieces come from a single hoard (Arnold-Biucchi *et al.* 1988: 22-26) and an unspecified number from another as yet unpublished hoard (Cutroni Tusa 1988-89: 397-398 n. 77).

Two Korinthian individuals are known. The first is a certain Eukritos whose tombstone, inscribed in the Korinthian alphabet, dates to the second half of the seventh century (Arena 1989: 83 no. 79; *cf.* *SEG* xxvi.1108). The other Korinthian is known from a graffito on a Korinthian alabastron, datable to the end of the seventh century (Arena 1989: 83-84 no. 80; *cf.* *SEG* xix.614). We cannot tell whether these two individuals were traders, as de la Genière (1977: 257) suggests.

East Greece. East Greek pottery is the second largest group of imports. De la Genière (1977: 258) maintained that East Greek wares first reached Selinous in MC times, but their appearance occurred slightly earlier, in the late seventh century (Dehl-von Kaenel, forthcoming). East Greek pottery occurs in settlement, cemetery, and sanctuary contexts. Like Korinthian pottery, the shapes imported are essentially confined to "Trinkgefäße" and "kleinere Aufbewahrungsgefäße" (Dehl-von Kaenel, forthcoming). Ionian cups appear to be the popular shape in the first group, followed by kraters and dinoi. The other group is made up particularly of alabastra, as well as aryballoi. Some other shapes include lydia, plates, and bowls.

Lakonia. Pottery is the only item from Lakonia. A few pots come from tombs (four kraters, a krateriskos, a lakaina, and three oinochoai) (Pelagatti 1992: 216-217). Further material has been found: sixth-century krater sherds from the acropolis (de la Genière 1975: 100) and from the sanctuary of Demeter Malophoros two of each of the

following: kraters, kantharoi, lakainai, and aryballoi, as well as eleven bowls (Dehl-von Kaenel, forthcoming).

Attika. Pottery provides the only link with Attika. Two fragments of SOS amphorae were discovered in excavations on the acropolis (de la Genière 1975: 100-101). Afterwards there seems to be a break in Attic imports till the arrival of figured pottery in the sixth century. The distribution of Attic black- and archaic red-figure pottery in Italy and Sicily has been the subject of a recent Oxford doctorate (Curry 1993). Much of the Attic material appears to derive from burial and sanctuary contexts (Curry 1993: 113-115); the repertoire of shapes represented is quite full, largely comprising lekythoi, oinochoai, and hydriae.

Other Greek states. Several other Greek states had contacts with Selinous, for which the evidence can be grouped together here.

Coin finds form the bulk of the information in this category. From Sicilian Greek mints of the archaic period are a few coins from Akragas, Syracuse, and Himera (Arnold-Biucchi *et al.* 1988: 6-7 for Himera; Cutroni Tusa 1988-89: 397-398 n. 77 for the other two). If we include the Mazara del Vallo hoard, dated to 435, the picture expands to include virtually all the Sicilian Greek cities which minted coins. Greek south Italy is represented by seven coins belonging to three cities (Metapontion, Poseidonia, and Sybaris: Arnold-Biucchi *et al.* 1988: 3-6). Mainland Greek coins number 82; one of these coins is Abderite, the rest are Aeginetan (Arnold-Biucchi *et al.* 1988: 13-22).

As for pottery, there are six items of so-called "Argive Monochrome" ware, of the Peloponnesian variety, from the sanctuary of Demeter Malophoros (Dehl-von Kaenel, forthcoming). It is uncertain whether this Argive Monochrome was imported or locally produced (*cf.* Kourou 1988: 319).

The remaining known evidence consists of a dedication by an Arkadian, probably a mercenary, made to the tyrant Gelon (*SEG* xiv.594), and Boiotian onomastic influences found in three inscriptions (Manni Piraino 1973: 93-94 no. 63, 107-108 no. 77, 115-116 no. 85).⁴⁴ In at least the former case we are probably dealing with the movement of individuals not involved in trading goods.

Non-Greek world. The fullest evidence under this heading comes from the Etruscan world. Of the pottery, bucchero nero is most prominent, with about 64 kantharoi from 25-30 tombs (Gras 1985: 491) and 57 examples from the sanctuary of Demeter Malophoros (Dehl-von Kaenel, forthcoming). A sixth-century amphora and a krateriskos were found in the Manicalunga cemetery (Gras 1985: 363, 491), as well as some sherds from the acropolis (de la Genière 1975: 100). Also of Etruscan manufacture are a bronze cauldron and a few (exact number unspecified) bronze basins (Gras 1985: 501-511). A fifth-century *defixio* from the Malophoros sanctuary (*SEG* iv.38) and two graffiti on bucchero nero (Gras 1985: 498) may supply testimony of people from the Etruscan sphere.

Material contacts between Selinous and the Phoenician/Punic and native worlds are rare at Selinous. Of Phoenician/Punic origin are three amphorae, of the first half of the sixth century, from the Gaggera cemetery re-used as cremation urns (Kustermann Graf 1991: 109). Vincenzo Tusa (1971a: 51-57) adds a few objects (in faience) and some minor influences (artistic and possibly religious). As de la Genière (1977: 256) has noted, Phoenician/Punic objects are few and scarce at Selinous.

Native representation fares even worse. The only native material known is that

⁴⁴ Other onomastic evidence will be shortly mentioned. With these onomastic data, I assume that they represent some form of external contact however far removed.

belonging to the village in existence in the era of Selinous' foundation, after which, whatever the natives' outcome, there are no material traces of native origin at Selinous. There is some interesting onomastic evidence. A bronze plaque, of the fifth century, contains Greek and native names alongside one another (*SEG* xvi.571; *cf.* Dubois 1989: 45-47 no. 36), and of an even more onomastically mixed character is a *defixio*, datable to 475-450, with Greek, native, Etruscan/Italic, Phoenician, and other unclassifiable personal names (*SEG* xvi.573; *cf.* Dubois 1989: 49-52 no. 38). The name "Sikana" appears in a *defixio* of the first half of the sixth century (*SEG* xxvi.1112; *cf.* Dubois 1989: 39-41 no. 29), though the existence of such a name at Selinous does not necessarily mean it belonged to a native (Dunbabin 1948: 193).

II. SELINOUNTINE CONTACTS REPRESENTED

IN EXTRA-TERRITORIAL AREAS

Few Selinountine products have generally been identified in extra-territorial contexts. The evidence consists of pottery, coins, and inscriptions.

Selinountine pottery has been recognised only recently, and details are limited. So far the only certain cases of identification have been at the native sites of Segesta, Poggioreale, Monte Maranfusa, and Monte Iato.⁴⁵ At Poggioreale Selinountine pottery apparently occurs in as early a context as the late seventh century (Falsone & Leonard 1980-81: 958), whereas at Monte Maranfusa it appears in the second half of the sixth century (Spatafora & Fresina 1993) (fig. X.1). The quantities involved seem to be small in the overall ceramic assemblages; at Monte Maranfusa, for instance, where we are

⁴⁵ Only the few sherds from Monte Maranfusa have been published (Spatafora & Fresina 1993: 11). The publication of Selinountine wares from Poggioreale promised by Falsone and Leonard (1980-81: 958 n. 23) has yet to appear. The Segesta and Monte Iato examples are also unpublished (see de la Genière 1988: 314 n. 19).

actually given some numbers, native pottery comprises about 70% of all pottery, with the remaining 30% made up by Greek imports (Spatafora & Fresina 1993: 10). Only a few Selinountine sherds belong to this category of Greek imports.

A sixth-century inscription in Selinountine script was recently found at the Elymian city of Entella (Nenci in Canzanella *et al.* 1990: 548 no. 2; *cf.* *SEG* xl.786). The inscription's publishers suggest that it may have something to do with exiles, but the text is much too fragmentary for certainty. At its very least, the inscription demonstrates contacts between Selinous and Entella.

At Rocca Amorella, in the mid-valley of the Platani (fig. X.1), a fragment of a basin or *louterion* with stamped floral chain motif is thought to be of Selinountine fabric (La Rosa 1988-89: 554). The sherd is dated to the end of the sixth/beginning of the fifth century.

Selinountine coins have been found in some Sicilian hoards.⁴⁶ Outside the island, they have also been found in a Tarentine and in two Spanish hoards.⁴⁷ Overstrikes on the coins of Selinous have been recognised at Metapontion, Kaulonia, Kroton, and Terina (Garraffo 1984: 167).

Lastly, three fragmentary tombstones, inscribed in Selinountine script, were found at Motya; they date to the sixth and fifth centuries (Jeffery 1990: 272). What these Selinountine individuals were doing there, or how their tombstones came to be inscribed in the native script is unknown.

This represents the extent of extra-territorial contexts that can be securely labelled

⁴⁶ Thompson *et al.* (1973: nos. 2071-2072, 2260). *Cf.* Cutroni Tusa (1975: 167-168).

⁴⁷ Tarentine hoard: Thompson *et al.* (1973: no. 1874); *cf.* Cutroni Tusa (1975: 169); Spanish hoards: Noe (1937: nos. 703 and 1062); *cf.* Dunbabin (1948: 326 n. 1).

Selinountine. Were one to base an opinion concerning the range and intensity of such contacts solely on the basis of this sparse material, then they would accordingly be judged minimal. However, that evidence cannot be taken at face value; it is certainly not representative, as we know on other grounds. Of all the native sites located around Selinous' territory, Segesta in particular manifests most clearly the adoption of Selinountine cultural features (visible in the alphabet, architecture, coinage, and terracottas: de la Genière 1978a: 42). The acculturation process would have been facilitated by the intermarriage agreement between Selinous and Segesta, which existed in at least the later fifth century, as recorded by Thucydides (vi.6.2).

Therefore, what are we to make of the Greek pottery and, to a lesser extent, other Greek objects found in western Sicily which, although not of Selinountine manufacture, could logically have come from Selinous? Can one distinguish how many of these Greek things found on non-Selinountine sites in extra-territorial regions were taken from Selinous to where they were found? The answer must lie in two directions: either the argument from probability or detailed studies on the material assemblages found at the receiving end. The probability case has been so strongly argued most notably by de la Genière (1978a) that Selinountine responsibility to some degree cannot rightly be denied. Nevertheless the probability argument runs the risk of creating the impression that *all* the Greek items found in the interior originated in Selinous. The detailed studies of material assemblages is what is needed, for such studies provide information that breaks down the generalisations.⁴⁸ Curry's (1993: 108) very valuable observation made about the Attic

⁴⁸ Compare Whitehouse and Wilkins (1989: 114) on native south Italy: "Very little specific work has been done on this topic [*sc.* nature of exchange]...." This can be extended to include the situation in Sicily. Therefore, it is not a question in the present work to engage in such needed studies, which form separate investigations altogether.

pottery from Segesta is one such reason to be cautious: "The material is thought to have reached Segesta by way of Selinous.... However, the difference in the Attic material from the two sites, both in shapes and numbers, is striking and indicates that further research is necessary. Segesta may have had more than one source for its imported pottery."

Similar such research is needed to investigate properly any relationship between a Greek city and its native hinterland, however reasonable it may be to suppose that the closest Greek city exerted the most influence on surrounding areas. In Selinous' case the level and nature of contacts with the interior is a subject which will require further study, and in the section that follows on economic transactions this shortcoming should be borne in mind.

III. ECONOMIC TRANSACTIONS

Selinous had a wide range of contacts with the outside world. It is extremely doubtful, however, that the known data represent the complete spectrum of the nature and extent of these contacts. The deficiencies in the data could to some degree be rectified if, for instance, more attention were paid to excavating Selinous' settlements, as well as to maritime archaeology. Even so, gaps will remain in the evidence due to the nature of archaeological and written sources. The archaeological picture, however, need not necessarily be as partial as it presently stands.

Some of the contacts just discussed cannot be described as trade and exchange transactions on two counts. First, in some cases there is written evidence which supplements the material remains, furnishing insights which indicate, or at least suggest, the different nature of the contacts (*e.g.*, intermarriage and mercenaries). Second, some evidence suffers from the small quantities and lack of details involved, thereby forcing judgement to be suspended for the time being. Other contacts, however, seem to indicate

economic activity.

Although the Phoenician element is surprisingly under-represented amongst the contacts discussed above, on other grounds we have reason to believe that this group's rôle was more important than the evidence suggests. Four clues fuel such suspicions.

First, Diodoros (xiii.81.4-5) records, in connection with the story of Akragas' destruction in 406, that the city acquired great wealth trading oil and wine with Libya (*cf.* Lancel 1995: 276). Although this testimony was made with reference to late fifth-century Akragas, it is reasonable to suppose that Selinous' prosperity, manifesting itself earlier, in the mid-sixth century, may have been derived from a similar sort of trading connection.⁴⁹

Second, it has long been thought, doubtless owing to Diodoros' (v.35.4-5) statements, that the silver used by Selinous came, via the Phoenicians, from Spain. Scientific analyses have now confirmed the Spanish origin of at least some Selinountine silver (see above), which may legitimately take us back to the Phoenicians.⁵⁰

Third, the pro-Punic stance of Selinous throughout history may have arisen from the need for self-preservation, be it socio-political or economic.

Fourth, the Selinountine *emporion* at Mazare, with its Semitic name (Asheri 1988b: 745), faced North Africa and naturally formed part of the Phoenician sphere (see fig. VI.6).⁵¹ Mazare, lying at the edge of Selinous' territory, must have occupied a crucial

⁴⁹ Thus, e.g., Dunbabin (1948: 221); de la Genière (1977: 256); Finley (1979: 34-35). The assumption is plausible because olive trees and vines would also have been suitable for Selinous' soils, and also because, like Selinous, Akragas has revealed very little trace of trade with the Phoenicians, and the only evidence which links the two is the Diodoran.

⁵⁰ Stazio (1992: 221, 224) suggests that Carthage could have supplied the silver for Akragas' coins.

⁵¹ Compare Fantar (1993-94: 211): "La Sicile et l'Afrique du Nord, notamment la Tunisie, ont toujours été partenaires."

place in this trade network, acting as a port of trade, where different cultures came together for the purpose of trading.⁵² We should imagine that Selinous regulated trade with foreign merchants through Mazare by means of some sort of bureaucratic structure, which also would have collected taxes from the various parties engaged in this trade. The Phoenicians were quite accustomed to this sort of organised trade, involving a minority of their traders amongst a local majority (Aubet 1993: ch. 4).

The latter four clues, taken together, make it very likely that Selinous and the Phoenicians would have been economically involved. Further plausible speculation can be advanced. Selinous, for instance, had the ability to produce a grain surplus (see above), which would have found a ready market at Carthage. For Carthage seems to have exploited very little of its Tunisian hinterland in archaic times (Lancel 1995: 77, 121, 257-302). If other Phoenician settlements turned their backs on the land in like manner--a debated issue (see ch. VI)--then Selinountine grain may have been in further demand elsewhere as well. Generally speaking, items exploited from land and sea could have found a market amongst the Phoenicians. In return, the Phoenicians could have offered silver and other metals.

The economic transactions Selinous may have had with native Sicilian communities are more difficult to assess; there are three major impediments (in order of decreasing seriousness). The most damaging of these is the dearth of knowledge concerning native society and economy. It must be remembered that the suggestions presented earlier (ch. VI) in connection with this subject are working hypotheses requiring

⁵² On the port of trade, see Polanyi (1963) (cf. also Curtin 1984: 12-14). It was common for a Greek city to situate an *emporion* at the margins of its territory (Bresson 1993: 201-214; Gras 1993: 107): elsewhere in Sicily, compare the *emporion* site in contrada Maestro on the Syracusan bank of the river Hyrminos (G. Di Stefano 1987b).

confirmation. The second hindrance applies to Selinous in reverse: little is also known of the Selinountine economy. The third problem regards the previously raised matter of attributing the Greek material evidence found on native sites to Selinountine involvement. Further study is needed to answer these crucial issues, which unresolved act as serious enough obstacles to cause judgment to be suspended until that time.

Economic transactions with mainland Greece can be posited. As regards the imported pottery, it is interesting to note that there is an overlap with Megara Hyblaia in the shapes imported (compare with results in ch. V). At both sites, Korinthian and East Greek wares in particular follow a common pattern, but the pattern seems to extend as well to Lakonian and Athenian. These similarities in pottery importation may be more than simply coincidental, and the better documented pottery trade at Megara Hyblaia may also have existed at Selinous. If true, then we can suspect that the open-shaped finewares could have come to Selinous as items of trade in themselves. The closed-shaped wares, like the aryballoi and alabastra, probably contained unguents. The few sherds of SOS amphorae could have held olive oil. The presence of Korinthian and Aeginetan coinage in relatively large numbers could perhaps indicate the origins and carriers of some of this mainland trade. In return for mainland Greek goods, Selinous could have offered products that derived from exploitation of land and sea resources.⁵³

In this section I have attempted to define the external trade in which Selinous was engaged. Even in cases where it is likely Selinous had such links, we are still far from speaking in a detailed manner. Further work is generally required on the subject of trade.

⁵³ A slave trade of some sort could also have existed, since it may be presumed that the Selinountine rich would have used servile labour to do their agricultural work, unless tenant farming and hired local labour were the case. The slaves may have been supplied by any of the external contacts Selinous maintained.

Concluding Remarks: the origins of Selinous' wealth

Written and archaeological evidence testifies to Selinous wealth (see more fully ch. IX). In the written record there are the sixty talents of gold in *IG* xiv.268 (lines 10-11) which, whatever the interpretation, nevertheless represent a substantial sum, and of a more general nature are the words in Thucydides (vi.20.4). However, it is above all Selinous' temple-building which speaks most eloquently on the subject of wealth. Such monumentality made its first appearance in the mid-sixth century, and it continued thereafter at a steady pace, even beyond the archaic period. The size of these building projects attests great expenditure, representing the most conspicuous manifestations of Selinountine wealth. Yet all of this evidence is the outcome of wealth; it explicitly says nothing of how that wealth came into being before it was converted into the outward signs that exist today.⁵⁴ Therefore, the process by which Selinous' wealth was generated is one that must be recaptured with other forms of evidence, namely archaeological and topographical (so defined by Østby 1987: 151). But before tackling the question of the origins of Selinous' wealth it is necessary to start by summing up the results of this chapter, reviewing briefly both what is known and unknown of the environment and economy of the site, to set the stage for the discussion that will follow.

Selinous' territory may have occupied an area of up to 1,500 km.², blessed with considerable agricultural potential, though quite poor in other (especially mineral) resources. Selinous became famous for a variety of wheat; it may also have raised livestock. Other production activities, on which we rely solely on archaeological evidence, are as yet imperfectly or completely unknown. Selinous, moreover, traded with

⁵⁴ Note Leveau (1985b: 24), who distinguishes between the creation and concentration of wealth.

the outside world to obtain needed materials. However, Selinountine environment and economy are not as well known as they could be; consequently, the gaps in the evidence need to be remembered, for arguments from silence cannot carry much weight when silence is the general rule of the sources. In the absence of a more complete set of data, recourse may be had to the discussion in Leveau (1985a), to get an idea of the theoretical possibilities which could have likewise been responsible for Selinous' wealth.

The point of departure of Leveau (1985a) is the questioning of the agrarian sector as the sole factor behind the creation of wealth. Besides agriculture, other possible ways to generate wealth are also well argued for, such as the profits from trading (Le Dinahet 1985) and the rôle of manufacturing (Morel 1985). The mention of just these latter two activities, selected from among several possibilities, is sufficient enough to demonstrate the shortcomings of the Selinountine evidence. Written and archaeological evidence is as a rule so limited that to omit the unevidenced possibilities is to run the serious risk of minimalism. Just because we cannot speak of a host of other matters obviously does not mean that they are to be altogether excluded. If it appears that this point has been laboured somewhat, it is largely because discussions of the wealth of Greek Sicily (*e.g.*, Dunbabin [1948]) have often tended to simple monocausality, that is, the prosperity was due to grain. However, when viewed in broader perspective, as illuminated by Leveau (1985a), and in light of the nature of Selinous' evidential basis, this seems too narrow a viewpoint to accept without demur.⁵⁵

We must be cognisant of the fact that a fuller picture once existed. For instance, did there exist Selinountine middlemen with ships, who, as citizens of a *polis* on the very

⁵⁵ For similar doubts, see Gullini (in Rizza 1978a: 73) and Østby (1987: 151). See also V. Tusa (1971a: 49).

edge of the ancient Greek world, profitably exploited, say, trade between the Phoenicians and other Greeks?⁵⁶ What, moreover, is known of other economic activities from which wealth could have been derived? In these and other possible cases we need to delve deeper. The preceding statements are not at all intended to dismiss the part grain may have played in creating Selinous' wealth; obviously this commodity was a strength of Greek Sicily as a whole.⁵⁷ However, as the wealth of Selinous is an archaeological and topographical problem, we must welcome studies, like Marazzi and Tusa's (1987) proposed survey archaeology project, which aim to understand the multifaceted conditions lying behind this success. For only then will we be in a position to appreciate fully the more complex origins of the wealth of Selinous.

⁵⁶ The subject of Selinountine ships has been debated by Torelli and Gullini (in Rizza 1978a: 70, 73), who arrive at opposing conclusions (see generally Dunbabin 1948: 228). Note Dunbabin's (1948: 254) passing comment that Greek Italy was well placed to act as the centre of entrepôt trade between mainland Greece and other regions of the western Mediterranean. Martin (1977: 57) and Østby (1987: 151-152) actually hypothesise that Selinous may have been one such node of maritime traffic.

⁵⁷ On the Sicilian grain trade in the fifth and fourth centuries, see recently Nenci (1993c) and Fantasia (1993). Note also that Diodoros (xvi.83.1-2) ascribes the erection of monuments in Timoleontic Sicily to wealth earned through agricultural surpluses.

CONCLUSIONS

This concluding chapter has two sections. The first reviews the main conclusions for the two *poleis* under examination and attempts to explain their divergent evolution. The second places the latter conclusions in a wider context by addressing more generally how this study has contributed to understanding the *polis*.

I.

Settlers from the Megarid in mainland Greece established Megara Hyblaia sometime in the third quarter of the eighth century. This overseas settlement formed part of the first wave in Sicily of Greek settlement, which initially restricted itself to the island's east coast. The Megarians were the last to arrive and had to take their place alongside Khalkidian and Korinthian settlements. The development of, particularly, neighbouring Syracuse and Leontinoi helped to shape Megara Hyblaia's own development; from early on there existed great inter-polity competition. It is likely that the Megarians could have only survived with the help offered by the Sikel leader Hyblon, for the archaeology suggests that the Megarians were few in number. One of the Megarians' intentions in founding Megara Hyblaia may have been to produce grain surpluses for export, as perhaps suggested by the early silos.

The ambitions of Megara Hyblaia's Greek neighbours become increasingly more evident around the mid-seventh century, by which time we can see Syracuse and Leontinoi making territorial gains, with their attendant expansion in resources and power. The opportunity for Megara Hyblaia to attain a similar standing was severely curbed, hemmed in, as it was, between two more powerful neighbours. This situation could account, at least partly, for the apparent synoecism that occurred between natives and Megarians at this time. The latter two groups were on good terms since Megara Hyblaia's foundation. Around the mid-seventh century this relationship may have evolved to co-habitation: the

archaeology shows that native settlements in the countryside were abandoned, with corresponding demographic growth and native burial practices attested at Megara Hyblaia. Prior to this postulated "in-gathering" Megara Hyblaia may have consisted of a few hundred souls, made up of people of different fortunes, as house size perhaps demonstrates. The influx of natives into the citizen body would have certainly contributed to the development of Megara Hyblaian society: the community increased in size and in complexity. Political power was organised around oligarchical government, and continued to be so until the end of the city's archaic existence. The iconography of local polychrome pottery gives some idea of how the élite wanted themselves and their aspirations to be depicted.

Megara Hyblaia's livelihood was centred on a territory some 400 km.² in size, which provided a solid economic base. Conditions were very favourable for agricultural production, with ample opportunities to produce surpluses; other resources could have been exploited as well to extend the range of exchangeable items. Conversion of surplus production into wealth perhaps occurred primarily on mainland Greek markets, for Megara Hyblaia, given its geographic position, formed part of a trading network that looked in this direction. Megara Hyblaia never minted, or apparently used, coinage in the archaic period, by contrast to its widespread use by other Greek states at this time; all economic affairs would have been transacted by means of barter. But to judge from Megara Hyblaia's monument-building, the community thrived and attained a respectable level of prosperity. The settlement was small by Sicilian standards, home to perhaps just over 2,000 inhabitants by the end of the archaic period.

The move to found Selinous, in the mid-seventh century, originated in Megara Hyblaia. Settlers from the homeland are also said to have joined in the enterprise.

Selinous' foundation was part of a wave of sub-colonisation initiated by the young Sicilian Greek *poleis*. In this bustle of settlement activity, numerous players competed for the few good sites that remained. The Megarians secured a site in the southwestern corner of Sicily, and so came into close contact with the island's Phoenician settlements. As with the other sub-colonies founded at this time, the Megarians seem to have aimed at acquiring territory and in general procuring a larger share in Sicily and its opportunities. At this time, Megara Hyblaia was building numerous monuments, just as population was growing; the latter may have induced social stress, causing some individuals to seek greener pastures in south-west Sicily. A native settlement existed on the site on which Selinous was established, and the encounter between Greeks and natives may have been violent.

The political development of Selinountine society in the seventh century is likely to have followed, at first at least, an oligarchic form of government current in the settlers' homeland. In terms of settlement development we find a grid plan, and the same sort of simple religious edifices as in the mother-city. In the earlier sixth century the first signs of south-west Sicily's impact on Selinous' development begin to reveal themselves. Selinous' territorial ambitions met with resistance from the natives (archaeological explorations have revealed some of the effects of this process), and the latter allied themselves with the Phoenicians to counter this advance. This joining of forces proved a formidable power to reckon with on the political front, and appears to have led to the installation of pro-Punic tyrants at Selinous in the second half of the sixth century. By that time Selinous was also facing pressure from the newly founded Akragas. With the disappearance of tyranny Selinous probably reverted back to oligarchic government, but the city still maintained its Punic allegiance, siding with the Carthaginians at Himera,

probably out of fear of Akragas' growing power.

Selinous had much economic potential, based on a territory that may have been about 1,500 km.² in size. Natural conditions were very amenable to agriculture; Selinountine grain was known in the Greek world. The land could have also been used for other activities like raising livestock and exploiting timber and Selinountine earth. This resource base could easily have supported the estimated population of the *polis* centre of 6,000-10,000 people in archaic times, and endowed Selinous with great possibilities to generate wealth. Surpluses were exchanged particularly with mainland Greece and the Phoenicians. In the mid-sixth century Selinous' wealth becomes visible via ambitious building programmes, which coincided with the appearance of tyranny and the height of territorial expansion. Coinage began to be minted just after the appearance of the monumental temples, and one of the uses of coinage may have been to make payments connected with this activity. Examination of the amount and cost of the stone used in Selinous' monumental temples reveals the scale and spirit of the times missing in literary sources.

Megara Hyblaia and Selinous inevitably shared much common ground in their development. Both *poleis* were of Megarian origin, which meant that their cultural heritage had roots that can be paralleled in the Megarian homeland and other Megarian colonies. Hanell (1934) showed similarities in, among other things, cults, calendars, and constitutions (*cf.* Dunbabin 1948: 303-304). There are even parallels in political ideology due to the Megarian connection (see ch. IV). Another reason for parallel developments at Megara Hyblaia and Selinous is that both were Sicilian *poleis*. We can detect the Sicilian factor at work in the economy of the two cities: geography dictated that grain surpluses would be their mainstay (whereas mainland Megara probably had to import

grain in classical times: Legon 1981: 22-25). Parallel developments due to regionalism may also be traced in other matters, such as the building of city walls and the Ionian influences detectable in art and architecture, both of which phenomena spread throughout Sicily in and around the mid-sixth century.¹ But there were differences between Megara Hyblaia and Selinous as well which need to be explored.

There has been, until recently, little scholarly interest in the study of divergent evolution. Flannery remarks on this with his characteristic wit:

Only in a few cases...did ethnologists attempt to trace the specific evolutionary history of societies diverging from a common ancestor. After all, some of the societies were preliterate, and some of the processes stretched over hundreds even thousands of years. Here was a challenge for the archaeologist. Yet instead of accepting the challenge, we archaeologists of that period mostly stood around, pencil in hand, writing down the characteristics of tribes and chiefdoms as the ethnologists dictated them. Perhaps their current terminological impasse will enable us to get back to the other aspects of evolution, which have lain fallow for so long. (Flannery 1983: 4)

Trigger (1993: 6) adds that "An evolutionism that seeks to account only for similarities destines itself to be incomplete." This statement derives from Trigger's (1993: 4-5, 25) belief that civilisations should be studied from the perspective of "the unique and the general" for proper understanding, and that this comparative perspective can introduce new ways to look at the subject. Plutarch rightly attempted to define both the similarities and differences in his *synkriseis*, and like the parallel characters examined by Plutarch Megara Hyblaia and Selinous had lives that did not always move in tandem. But what caused these Megarian *poleis* to be different?

¹ Within this regionalism *polis* identity existed. It can be traced most obviously in architecture (Rizza 1977), but also in such media as Megara Hyblaia's polychrome pottery (compare the latter with Coldstream 1983).

We begin with geographical factors. The sites on which the Megarians established Megara Hyblaia and Selinous are broadly similar in their make-up, leaving much to be desired regarding defensive qualities and shelter for boats. One feature available to Selinous, but not to Megara Hyblaia, was the existence of long watercourses, two of them perennial (like the Belice), which facilitated penetration of the hinterland. This factor may partly explain the differences in territory size between the two cities: the maximum extent of Megara Hyblaia's territory was 400 km.², whereas Selinous' territory may have been up to four times larger. These differences put the two *poleis* at opposite ends of the Sicilian range of territory size, and certainly contributed greatly to their overall development. Furthermore, Selinous may have had a higher proportion of cultivable land at its disposal, owing to the flatter nature of its land, though Megara Hyblaia may have received slightly more rainfall. Such elements, even if they could be established with all certainty, may have neutralised each other on an island generally blessed with considerable agricultural potential. What probably mattered more in Sicily was the quantity of territory each *polis* could exploit.

The size and acquisition of Megara Hyblaia and Selinous' territories has much to do with socio-political circumstances and relations, for geography must be considered in connection with the human actors on the landscape (compare Dunbabin 1948: 19). Megara Hyblaia had limited possibilities for territorial expansion because of the ambitions of Syracuse and Leontinoi. Two circumstances aggravated the matter. The Megarians were the last group of Greek settlers to arrive in eastern Sicily in the eighth century, and there they found a world already home to Khalkidians and Corinthians, who at the same time happened to be enemies of mainland Megara. Stiff competition for a place in Sicily ensued, in which the Megarians just survived. Megara Hyblaia was forced to accept a

secondary rôle in Sicilian politics.

Selinous also had powerful neighbours, but here the result could not be identical owing to different conditions. Selinous' nearest Greek neighbour at the time of its foundation was Gela, some 135 km. away; Akragas was not founded until around 580. The territory around later Akragas may not even have been part of the Geloan periphery in the mid-seventh century, and this gave Selinous a certain amount of room to manoeuvre. The natives were the main human element already existing on the land, and Selinous' relations with this group were violent, at least in the early sixth century, and perhaps even from the time of Selinous' foundation. The latter makes complete sense if we view Selinous' foundation as mainly due to the acquisition of natural resources which was blocked on the home front. The Megarians came out to western Sicily, willing to fight to get what they wanted, having learned their lesson well in eastern Sicily. The fact that the Phoenicians were also Selinous' neighbours played a significant rôle in shaping the course of events to come.² To curb the Selinountine advance, the natives allied themselves with the Phoenicians. This realignment will have been too much for a young *polis* such as Selinous to handle, and by the mid-sixth century Selinous had become pro-Punic, and was to remain so down into the classical period. This move brought with it relative political stability, which created the conditions to allow Selinous to prosper: a pro-Punic outlook, together with the immense possibilities introduced by trade with the Phoenician world, created perfect conditions for becoming wealthy, opportunities not available to Megara Hyblaia.

Another cause of divergent evolution is the generational gap between Megara

² Dunbabin (1948: 305) also thought so: "This is perhaps due to the stimulus of closer relations with another civilized people, the Phoenicians."

Hyblaia and Selinous; a century stood between their foundations. This may not seem a long time, but we need to put this century in the wider context of the archaic period, where, given the pace of development in the Mediterranean world as a whole, a century was a long time. Architecture is an example of this. If we compare the building that occurred at Megara Hyblaia in the second half of the seventh century with the building that occurred at Selinous in the second half of the sixth century, the differences are enormous. Granted there are other factors at work in this comparison, such as the greater level of wealth available to Selinous and the socio-political circumstances (tyranny) which encouraged greater expenditure and display in building, but the point is still valid, since Greeks of the seventh century were simply not capable of building practices and traditions that were products of later times.

The generational gap, however, went beyond mere technological progress, and extended to the demands and opportunities of a later era. Megara Hyblaia did not fortify its *polis* centre until more than two hundred years after its foundation; at Selinous fortifications were built only one hundred years later. The manner in which war was being conducted was changing, and survival came to depend more and more on protecting the collectivity (a point recently made by Ducrey 1995). In more general terms, possibilities and opportunities may have presented themselves, or have been realised, only later. Some natives may have been more receptive to the Greeks when the latter had been observed for a while. Selinous had the advantage of learning and being able to build on the realities of Sicily, having had the hindsight of Megara Hyblaia's experience. Mainland Megara and Megara Hyblaia became *poleis* in the eighth century. Although there are obvious differences between the two, they were contemporaries. As a result, the two Megaras resembled each other in *polis* development more than either resembled Selinous. Selinous'

birth, on the other hand, took place in a changed world.

Comparison between Megara Hyblaia and Selinous would be better served if the archaeological record were augmented and diversified; the widest range of evidence needs to be retrieved. Additional sets of data would allow a more detailed comparison.

II.

How has this study contributed to the study of the *polis*? In particular, how does the present picture compare with previous notions of Sicily, and has the present study been able in any way to chart out a course for future studies?

There have been different visions of Sicily's place in the study of ancient Greek civilisation. My intention is not to enumerate the achievements of the western Greeks in art, architecture, literature, philosophy, science, and so on. These matters are rather well known,³ and in any case they reflect obliquely what is of concern here, namely modern attitudes to Sicily. For Dunbabin (1948), as we have seen, archaic Greek Italy simply duplicated and heavily depended on mainland Greece, which set the socio-economic and cultural agenda. Dunbabin's message is clear: the Greek "colonies" in Italy are secondary and derivative to the study of the *polis*, and it is by focusing on the centre, that is mainland Greece, that one goes directly to the source of innovation. On the other hand, there is Freeman's (1891-94: i.342) vision, quoted in the preface (p. ii). He believed that the development of the Greek (and even Phoenician) cities of Sicily had a contribution to make to "the general history of mankind" and by extension to formulating a global vision of the Greek contribution to humanity.

Unfortunately, Dunbabin's vision has largely prevailed. Today when English-

³ See, for example, Woodhead (1962: 118-160), Sjöqvist (1968; 1973: ch. 6), and E. Greco (1992: ch. 4).

language scholars want to know something about archaic Greek Italy, they still have to turn to Dunbabin. This makes sense, of course, since the bibliography is massive and often the debates very specialised and complicated for outsiders to comprehend. Dunbabin's book, therefore, remains the standard text: according to Starr (1987: 7-8), "The western Greeks...have not had the attention they deserve; since Dunbabin's solid survey a great deal of archaeological exploration has occurred, though in truth the western colonies cannot be said to have had major roles either politically or culturally despite their wealth." This statement both underlines the still fundamental nature of Dunbabin's book, as well as demonstrating the tone his work has potentially set for future studies by English-language scholars. Dunbabin's reconstruction has introduced distortions and constraints which need to be set straight.⁴

Dunbabin's whole argument was based on the belief of cultural unity:

I have drawn much on the parallel to the relations between colonies and mother country provided in Australia and New Zealand. Here political independence is combined with almost complete cultural dependence, on which the colonials pride themselves. Difference in manner of life is due to difference of material circumstances, and is not enough to destroy the essential unity. This unity is the pride of most colonials; so probably in antiquity.

⁴ Compare Wolf's (1982: 5) at times slightly exaggerated, though still insightful, remarks on the dangers of looking at history too narrowly: "...what would we learn of ancient Greece...if we interpreted it only as a prehistoric Miss Liberty, holding aloft the torch of moral purpose in the barbarian night? We would gain little sense of the class conflicts racking the Greek cities, or of the relation between freemen and their slaves. We would have no reason to ask why there were more Greeks fighting in the ranks of the Persian kings than in the ranks of the Hellenic Alliance against the Persians. It would be of no interest to us to know that more Greeks lived in southern Italy and Sicily, then called Magna Graecia, than in Greece proper. Nor would we have any reason to ask why there were soon more Greek mercenaries in foreign armies than in military bodies of their home cities. Greek settlers outside of Greece, Greek mercenaries in foreign armies, and slaves from Thrace, Phrygia, or Paphlagonia in Greek households all imply Hellenic relations with Greeks and non-Greeks outside of Greece. Yet our guiding scheme would not invite us to ask questions about these relationships" (my emphasis).

Two objections can be made.

The first regards Dunbabin's belief in the cultural unity of the British Empire. Dunbabin tried to smooth over the differences that existed in the British Empire; that was the very nature of imperialism, which played up the unity between centre and periphery. But one need only compare Britain with such far-off places as Australia and New Zealand in the South Pacific and Canada in North America to realise how a family with common roots can diverge when placed in environments whose geographic, socio-political, and economic circumstances differed from one another.⁵ However hard one wished, there could never be homogeneity; the odds were simply against it.

The idea of cultural unity is also undermined by recent changes in social anthropological thinking. In the 1970s, as Trigger (1989: ch. 9) has shown, there was growing discontent amongst archaeologists that the neo-evolutionism of previous decades, with its emphasis on cultural regularities, did not satisfactorily account for the diversity in prehistoric cultures. As part of this shift scholars began "...to abandon the view that societies or cultures are closed, or tightly bounded, units that can be studied independently of one another and to pay more attention to the role played by external stimuli in bringing about cultural change" (Trigger 1989: 330). In other words, "...human populations construct their cultures in interaction with one another, and not in isolation" (Wolf 1982: ix). Therefore, the fact that Sicily was home to several cultures means that the development of Greek society there can never have been exactly the same as it was in mainland Greece, where different conditions pertained. We could illustrate the differences between these two regions of the Greek world by pointing out the uniqueness of those

⁵ Compare the recent three-part series on BBC Radio 4 entitled "Diverging Dominions" about present-day Australia, New Zealand, and Canada (8, 15, and 22 May 1996).

poleis whose citizen bodies were made up of Greek and native elements, as well as the frequent recourse Greek Sicily had to tyranny (owing to the threat of foreign cultures, particularly the Punic) when that form of rule had long since disappeared in Greece. Tyranny in the west was no provincial aberration (*cf.* Woodhead 1962: 120).

The idealised notion of the unity of culture has to be abandoned. In his study of Magna Graecia, Greco advocated this position; after showing how far and wide the Greek world extended, he remarked as follows:

In ciascuna di queste regioni si sono avuti esiti differenti, non solamente per effetto della varietà delle tradizioni locali ma per la diversità della cultura greca stessa: la 'gremità' intesa come blocco monolitico esiste solo nell'immaginario moderno di estrazione romantica. Il vero problema sta nel riuscire a cogliere i legami, le radici comuni e nel contempo le specificità 'locali' di ogni singola parte del mondo greco. (E. Greco 1992: 131-132).

Greco (1992: 133) goes on to say that we cannot even speak of the western Greeks as a homogeneous cultural entity. More and more studies have recently been stressing the diversity of Greece at various times in antiquity.⁶ As this study has hoped to have shown, Sicily was also a diverse world. Arafat and Morgan (1994: 126), in assessing whether or not Massalia was unique, called for comparative work on the social and economic history of the Greek colonial world, but I would go further and combine the so-called "colonies" with their "mother countries" into a scheme of research that examined the ancient Greek world as a whole.⁷ What I am advocating is that we no longer view, in a biased way,

⁶ For the Dark Age: Whitley (1991a: 181-194, 198; 1991b); for the archaic and classical periods: Gehrke (1986); Osborne (1987); for the hellenistic and Roman periods: Alcock (1993; 1994).

⁷ The need for such work is indicated by one of Arafat and Morgan's (1994: 128) own statements: "...colonial territories, where they can be defined, appear small by mainland standards...." The opposite is true of Sicilian colonies: mainland territories were smaller, often somewhere in the range of 25-100 km.² in size, especially as regards the less powerful states (Ruschenbusch 1985: 258; Burford

Sicily and other regions on the "periphery" of mainland Greece as secondary to the study of the *polis*.⁸ Like Aristotle with his *politeiai* (Rhodes 1981: 58-63), we must collect as many details of the Greek *polis* from all the areas where this phenomenon is attested.⁹ And only by doing so can we legitimately say that the Greek *polis* is being properly studied. Murray (1992b: 21) has remarked that, in view of the paucity of studies on Greek ecological and agrarian history, general theories and works of synthesis are premature. The same holds true for the *polis*.

One final point needs to be made before closing. The history of the Sicilian *polis* cannot be tackled in the same way as it usually is for mainland Greece. The reason is simple: generally speaking, mainland Greece is better documented than Sicily (this factor explains in part the modern scholarly neglect of the western Greeks). Herodotos has little to say on Sicilian affairs, and in the west there was no equivalent to Pausanias; consequently Sicilian monuments are mute. Mainland Greek studies, having more literary material at their disposal, are organised differently and emphasise matters in a way that rarely can be replicated for Sicily.¹⁰ In many of these studies, moreover, it is common to find that the greater the amount of literary evidence available the less archaeology is

1993: 18-19). Compare this with Megara Hyblaia, one of the smallest Greek states in Sicily, which had a territory of around 400 km.² But even Korinth, with its territory of about 900 km.² in size (Salmon 1984: 19), is smaller than Selinous with 1,500 km.² For other criticisms of Arafat and Morgan's paper, see the sharp exchange of views in Sherratt, Arafat and Morgan (1995).

⁸ It must be recalled that the western Greek "periphery" provided social and cultural forms that contributed much to the later Roman "centre": Greek Italy acted as a mediator (Woodhead 1962: 161-162).

⁹ As Coldstream (1984: 9) and Papadopoulos (1993: 196) have also urged (see note 38 in the introduction).

¹⁰ For instance, Legon (1981) and Griffin (1982) rely almost entirely on literary sources; Shipley (1987) is heavily organised around episodes in the literary sources.

used.¹¹ By contrast, Sicilian studies have perforce to be done differently; there cannot be any disciplinary boundaries in dealing with the evidential basis.

In any case, archaeology and history are complementary subjects; the amount of overlap between these sources is governed not only by their quantity and quality, but also, as we have just seen, by scholars' attitudes in combining them.¹²

Texts generally inform us of the elite and powerful members of a culture, focusing on the political and social aspects of their behavior. Archaeology, on the other hand, tends to be informative of the common and disenfranchised members of a culture, more informative at least, than is history. Archaeological evidence is long-term, day-to-day processes of the past, with a focus on the functional and cultural aspects of behavior. (Kosso 1995: 187-188)

As argued in the introduction, the study of archaic Sicily is primarily an archaeological endeavour, and it is not at all a question of trying to establish the relationship between the primary sources.¹³ Yet the point about the nature of archaeological and textual evidence remains valid; our sources can theoretically divulge only particular sorts of information. The lack of texts for Sicily allows little to be said of "political and social aspects of behavior" (Kosso, above); the more abundant archaeological sources put the focus on "long-term, day-to-day processes" which archaeologists, adopting the framework of

¹¹ This can be seen in, for example, Tomlinson (1972) and Salmon (1984): archaeological data are mainly used to discuss the history of pre-archaic periods; this practice peters out, even though archaeological sources are available, as the literary sources become more abundant. Reyes (1994) bridges the gap somewhat, but his archaeology is essentially art history. However, "...the use of archaeological data in ancient history is not a zero-sum game" (Morris 1994b: 45). Field survey projects, of the sort of published by Cherry *et al.* (1991), Jameson *et al.* (1994), and Carter (1990; 1993), provide another dimension to historical reconstructions.

¹² For full discussion of the "analytical frames" which have linked archaeology and texts, see Small (1995: 3-9).

¹³ Although that has not stopped scholars working on Sicily from attempting to write histories based solely on what little textual evidence there is.

Braudel's (1972) tripartite study of history, have recently been in the habit of labelling the *moyenne* and *longue durées* (Bintliff 1991; Knapp 1992).¹⁴ In Sicily, therefore, the dependence on archaeology completely changes the questions asked.¹⁵ Sicily needs an academic *rapprochement* which combines the full range of evidence. Future historical studies on Sicily can no longer proceed by choosing the historical or archaeological camp; forces must be joined, since such a procedure fits best the nature of the evidential basis. It is only in this way that archaic Sicily can have a history.

¹⁴ The *moyenne durée* focuses on social and economic history, economic, agrarian, and demographic cycles, as well as on the history of eras, regions, and societies; the *longue durée* looks at, for example, geohistory and the history of civilisations and people (compare Bintliff 1991: 6, fig. 1.2).

¹⁵ There is perhaps a lesson to be learned by scholars working on mainland Greece, who often rely excessively on literary sources, to the detriment of archaeological data. As just stressed, these two forms of evidence are complementary, and should be used together to yield as many insights as possible.

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Pl. 1. Pantalica: rock face with tombs.



Pl. 2. Pantalica: the *anaktoron*.



Pl. 3. Pantalica: tower near *anaktoron*.



Pl. 4. Dessueri: hill with rock-cut tombs.



Pl. 5. Megara Hyblaia: overview of site's topography.



Pl. 6. Megara Hyblaia: stretch of coastline north of site (with industry in background).



Pl. 7. Megara Hyblaia: street B of archaic plan.



Pl. 8. Megara Hyblaia: foundations of eighth-century house.



Pl. 9. Megara Hyblaia: remains of temple g (five ashlar blocks in foreground).



Pl. 10. Megara Hyblaia: *prytaneion* seen from east.



Pl. 11. Megara Hyblaia: stretch of city wall with semi-circular tower.



Pl. 12. Terrace-like nature of Megara Hyblaia's territory (coastal industry visible in distance).



Pl. 13. Glimpse of landscape around Villasmundo.



Pl. 14. Archaic metalworking furnace at Megara Hyblaia.



Pl. 15. Landscape around Sant'Angelo Muxaro: view from tomb.



Pl. 16. Unfinished Doric temple at Segesta.



Pl. 17. Monte Iato seen from the plain.



Pl. 18. Motya's *tophet*.



Pl. 19. View of the Cotone river-valley at Selinous.



Pl. 20. Reconstructed plan of archaic/classical Selinous (prepared by DAI Rom).



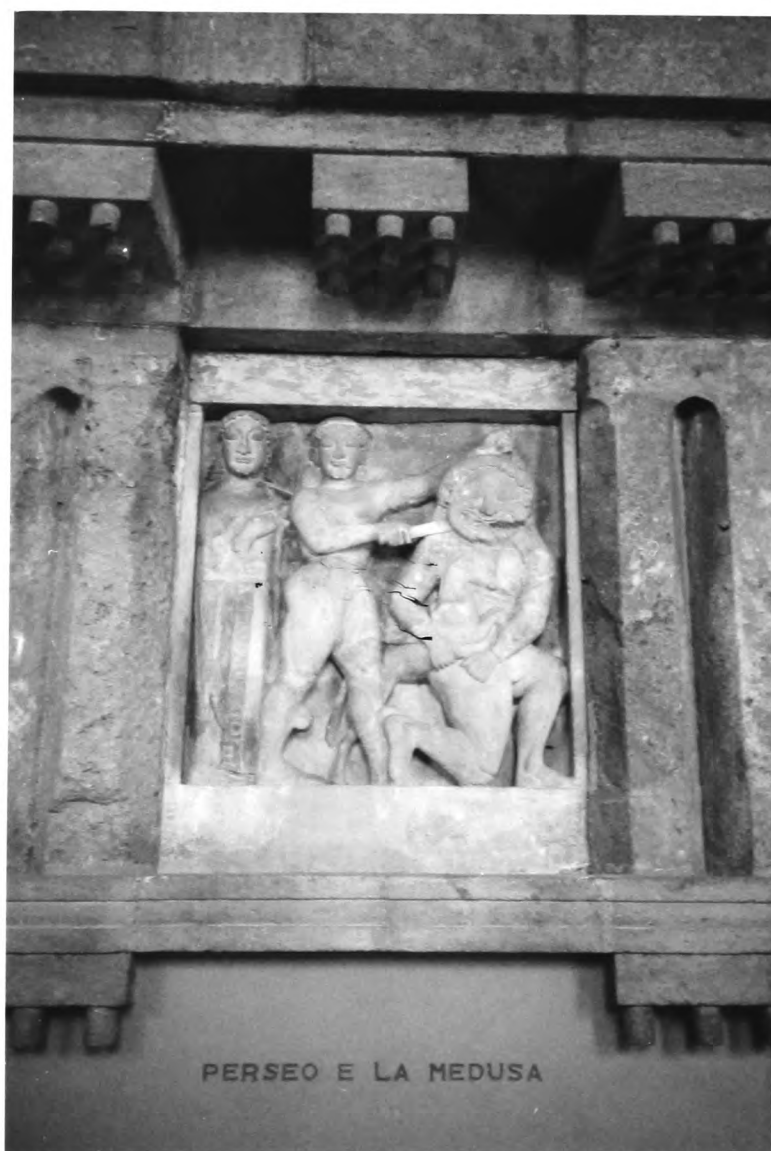
Pl. 21. Heraion on Gaggera hillside, Selinous.



Pl. 22. Semi-circular tower at Selinous' east gate.



Pl. 23. North flank of temple C, Selinous.



Pl. 24. Temple C metope in Palermo: Perseus killing Medusa.



Pl. 25. Temple C metope in Palermo: Herakles and the Kerkopes.



Pl. 26. Interior of temple E3, Selinous.



Pl. 27. Column drum in the Cave di Cusa.



Pl. 28. View of the north side of the Caltabellotta mountain (photo: GBS).



Pl. 29. View from Monte Adranone looking south, with Lago Arancio in background.



Pl. 30. View of plain north of Selinous, with Castelvetro (15 km. away) in distance.