THE FORTIFICATIONS OF ARKADIAN POLEIS IN THE CLASSICAL AND HELLENISTIC PERIODS

by

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Abstract

This study comprises a comprehensive and detailed account of the historical development of Greek military architecture and defensive planning specifically in Arkadia in the Classical and Hellenistic periods. It aims to resolve several problems, not least of all, to fill the large gap in our knowledge of both Arkadian fortifications and the archaeology record on the individual site level.

After establishing that the Arkadian settlements in question were indeed poleis, and reviewing all previous scholarship on the sites, the fortification circuit of each polis is explored through the local history, the geographical/topographical setting, the architectural components of the fortifications themselves, and finally, the overall defensive planning inherent in their construction. Based an understanding of all of these factors, including historical probability, a chronology of construction for each site is provided.

The synthesis made possible by the data gathered from the published literature and collected during the field reconnaissance of every site, has confirmed a number of interesting and noteworthy regionally specific patterns. Related to chronology, it is significant that there is no evidence for fortified poleis in Arkadia during the Archaic period, and when the poleis were eventually fortified in the Classical period, the fact that most appeared in the early fourth century BCE, strategically distributed in limited geographic areas, suggests that the larger defensive concerns of the Arkadian League were a factor. Regarding the construction and architecture of the city walls, not only where the fortifications of every polis comprised of a mudbrick superstructure, but in all periods, polygonal masonry and trapezoidal masonry were equally viable options for the stone foundations. In this regard, it is established that when used alone, the type of masonry is not a reliable stylistic indicator for establishing the relative date of a circuit. Moreover, it is interesting to note that the location of every single site chosen was provided with protection in the form of some sort of watercourse. Finally, concerning innovations in siege warfare and offensive artillery, the defensive responses of the Arkadian fortifications follow the same general developments observable in the circuits found throughout the Greek world.
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Dedication

To Mê-Linh, you are my Arkadia.
Chapter 1: Introduction

1.1 Background

The earliest Arkadian scholarship, perhaps echoing a view held by the ancient Greeks themselves, focused on the idea of Arkadia as a cultural and political backwater, inhabited by the proverbial ‘acorn eaters’.¹ This was certainly the view held in the early part of the 20th century and one, that despite much recent scholarship, unfortunately persists to some extent into the present day.² Fortunately, however, the last three decades have witnessed a fundamental evolution in the theoretical assumptions and general disciplinary predispositions that dominated earlier Arkadian scholarship. This evolution is characterized by a move away from traditional stereotypical interpretations of a poor and isolated Arkadia towards a view of a moderately prosperous region whose inhabitants followed generally the same patterns of social, political, and cultural development as seen elsewhere in ancient Greece.³ This marked shift is clearly evident in the work of Roy, a prominent scholar of Arkadian history. Roy admits that elements of his doctoral dissertation are flawed “and tended to an uncritical view of Arkadia as poor and backwards.”⁴ Thirty years later, however, he was of the opinion that “though such an area is often thought of as backward and economically poor, recent work suggests that the conventional view of mountain areas is too dismissive of their potential.”⁵ This paradigm shift is unmistakable in the published literature.

² E.g., “the Arcadians were notoriously backward,” Richter (1931:198); “it was the most backward district in the development of the πόλεις,” Parke (1933:14); and “Arcadia…was marginal in terms of its cultural development and its relative lack of city-states,” Hunt (1998:197, n.1).
³ Nielsen and Roy (1999:12-13).
⁴ Roy (1999:366, n.2).
Historical and archaeological research focusing specifically on Arkadian issues has received a great deal of scholarly attention in the last three decades. For example, one only has to consider the comprehensive and thorough inventory of Arkadian sanctuaries and religious traditions by Jost, or the attention given to individual temples such as Apollo’s at Bassai or Athena Alea’s at Tegea. Nor have the study of Arkadian poleis, inscriptions or numismatics been neglected. Archaeological interest in the region has led to scholarly investigations with a focus on topics as diverse and specific as road networks, individual buildings, ceramics, the economy, and archaeological survey. This short review provides an overview, but it must be noted that it does not exhaust the amount of quality research being conducted in Arkadia, much of which will be explored in greater detail in the chapters to follow. There is, however, one area of interest that has not received extensive scholarly attention – the study of Arkadian fortifications. While it is true that the fortifications of some Arkadian settlements have been thoroughly documented and studied (e.g., at Gortys, Stymphalos, Theisoa [Lavda]), such studies are usually undertaken as part of a specific site as a whole but with little concern for the fortifications in their own right, their relation to the natural topography, or for any inter-

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7 Cooper (1996).
8 Pakkanen (2005); Tarditi (2005).
9 Nielsen (1996a; 1996b; 1996c; 2002); Roy (1972a; 1996); Jost (1973); etc.
10 E.g., IG V.2 and SEG 11.
11 Head (1963:418, 444-56).
12 Pikoulas (1992-93; 1999a; 1999b), etc.
13 E.g. Cooper (1972).
14 E.g., Voyatzis (2005) and Cracolici (2005).
15 E.g., Roy (1999).
16 E.g., Forsén and Forsén (2003).
17 Martin (1947-48).
18 Williams and Gourley (2005).
19 Feije (1994).
regional comparison. In any case, even these examples are in the minority. What is in the majority, however, are those sites where information is either scant or lacking altogether. In the case of these neglected sites, we often have to rely on a combination of descriptions left to us by Pausanias, early modern European travel writers following in his footsteps, extremely out-dated or merely tentative plans, or on general descriptions in encyclopedic reference works. In some cases we must be thankful to have any of these at our disposal as they remain our only sources of information.

The overall objective of the following study, therefore, is a comprehensive and detailed account of the historical development of Greek military architecture and defensive planning specifically in Arkadia from the Classical period to the Roman arrival in Greece. While Winter’s *Greek Fortifications* (1971) remains the first truly definitive and comprehensive study of Greek defensive architecture, forty years have passed since its original publication. As a wide-ranging work, many of the sites covered by Winter are necessarily dealt with in a brief (but succinct) fashion, largely in terms of the technological components of military architecture rather than parts of an inclusive geographical or regional area. Moreover, the focus of his work is largely the better-preserved and better-known fortification circuits of Asia Minor or the ‘important’ *poleis* of the mainland, whereas only a handful of Arkadian sites are given any attention at all.20

While standing on the shoulders of a giant like Winter is a formidable undertaking and an unavoidable approach to such a study, the fact remains that there is much room for an updated regional study focusing on Arkadian fortifications.

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20 E.g., Mantinea, Phigaleia, Nestane, Orchomenos, and Stymphalos.
To the detriment of the discipline, the study of fortifications has been neglected in Classical archaeology. There are several oft-cited reasons for this. It is often said, for example, that fortifications are frustratingly difficult to date; the often meager remains have little interest from the art historical point of view; or that autopsy is a prerequisite for their study.\(^{21}\) Although the usual repeated reasons are understandable, they are not insurmountable or altogether justified. The lack of a precise date does not completely negate their value as a historic source. Similarly, their relative lack of value from the art historical point of view, which has had such a strong hold on the discipline for too long, is irrelevant. Finally, the fact that fieldwork on the ground is an essential component in the study of walls should not deter their study, but encourage it. After all, unlike many other artifacts, “the provenience of a wall is rarely an issue; they tend to stay where they were put and that immutability makes them unique among Greek artifacts.”\(^{22}\) While additional reasons are addressed in Chapter 3, there are two primary reasons why fortifications should receive more scholarly attention: not only do they form the most conspicuous remains surviving on the surface today, but the construction of city walls both reflected and protected a city’s autonomy, and as such are a fundamental characteristic of the polis itself.\(^{23}\)

It must be asked, why Arkadia? Ultimately, a regional survey of fortifications in Arkadia will go a long way to complement not only the existing archaeological data but also to supplement both the growing interests in landscape studies within our discipline and in ancient Arkadia itself. Moreover, a review of the existing literature regarding

\(^{21}\) Camp (2005:41); Winter (1971a:ix).

\(^{22}\) Camp (2005:41).

\(^{23}\) While it is true that a fortification circuit does not equal a polis in every case, “a fortification wall around the urban centre is one of the features commonly connected with the concept of the polis” (Hansen 1995:9). This point is addressed in greater detail below.
individual Arkadian poleis has demonstrated that while much proficient but wide-ranging historical scholarship – largely under the auspices of the Copenhagen Polis Centre (CPC) – has appeared relatively recently, there is much work to be done concerning the archaeology on the individual site level. Estimates vary based on the selection criteria used, but there are between 35 and 45 Arkadian sites (most of which could be considered poleis) known to have existed in the Archaic through the Hellenistic period. With the exception of a handful, however, very few of these sites have received any satisfactory scholarship, and even less have received it in the last 50-75 years. Furthermore, there is to my knowledge only one other study concerning fortifications in Greece that has been conducted within a regional scope. Yet an exclusively regional focus has the potential to shed light on a number of issues, not least of all the possibility of adding support to the identification of a local Arkadian fortification style. It is a well-established and common practice in archaeology to recognize regional styles, whether they be in ceramics, fine arts, letter-forms, or architecture (domestic, civic, and sacred), and to utilize these styles for chronological purposes or the identification of imported/exported influences; it follows that the same should hold true of fortifications as well.

As mentioned above, the ultimate aim of this study is a comprehensive regional survey of fortifications in Arkadia. The word survey here does not simply denote a cataloguing of extant defensive works, although that is an important part of the study. Instead, it is meant to include a meaningful synthesis in which a number of related

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24 These estimates are derived from ‘Appendix IX’ in Nielsen (2002).
26 Winter (2005), for example, has tentatively demonstrated a regional style for Arkadian Doric temple architecture.
27 Camp (2005:44).
elements will be addressed. As stated in the introduction of his book, Winter tells us that he does not expect his work to be revolutionary nor to be necessarily at odds with the prevailing scholarship. I would like to echo such sentiments here. Although the present study comprises an original piece of research in the field of Arkadian archaeology, the primary objective in this regard is to fill in the large gap in our knowledge of Arkadian fortifications.

At the root of any larger regional archaeological synthesis is the need for an awareness of how exactly the study area of ancient Arkadia is defined geographically, ethnically, and politically (Chapter 2). Equally important is the understanding of the basic terminology as well as the architectural and chronological observations established in the study of Greek fortifications in general (Chapter 3). Having established this necessary background, the larger objectives and aims of this work are explored, including a detailed description of the fortifications of the different Arkadian poleis categorized by their geographic location within the region (Chapters 4-8). The data presented in these research chapters is subsequently assessed in detail, presenting an examination of the discernable patterns shared and differences exhibited in the geographical distribution of sites, the local topography, and the architecture employed in the various fortification systems. The chronological patterns established in this synthesis are viewed in the light of both the recognized history of Arkadia as well as historical probability that can be reasonably and plausibly inferred (Chapter 9). Finally, a summary of the principal observable patterns as well as suggestions for further research are presented in the conclusion (Chapter 10).

28 The objectives of this study are presented in detail below in section 1.4.
1.2 Theoretical Assumptions: Arkadia, Walls, and the Polis

Underlying the present work are a number of general theoretical assumptions held by the author on the subjects of Arkadia, fortifications, and the polis. Regarding Arkadia – as addressed in the subsequent chapter – it is held that the ancient Arkadians constituted an ethnic group, that Arkadia was perceived as a clearly defined geographical region, and that Arkadian ethnic identity was manifested at both the regional level (ethnos) and local level (tribe/polis). At the local level, moreover, the tribe and/or polis also represented the main unit of political organization for the region as a whole.

Concerning city walls, it is difficult to find in the published literature anyone willing to equate a fortification circuit as proof of a settlement’s identity as a polis. Perhaps this is rightly so. Instead, city walls are often listed among other traits as “features commonly connected with the concept of the polis.” That is to say, a community’s polis-status cannot be inferred from walls alone, but by a number of characteristics, among which one may count the presence of a fortification circuit. Moreover, the fact that the second half of the fifth to the fourth century BCE witnessed the decline of the truly independent city-state is better understood as a decline in political independence and is not to be confused with civic autonomy. Thus, while a polis may have sacrificed its larger political identity and individuality with regards to foreign affairs by joining a regional federation or hegemonic league, civic autonomy was nonetheless a crucial aspiration – one that required fortifications. Accordingly, it is assumed that the city walls functioned to both reflect and protect a community’s civic autonomy, and as

such are a fundamental characteristic of the *polis* itself. Consequently, a fortification circuit was just as much (if not more) of an imperative for truly independent *poleis* as it was for dependant ones.

In addition to the practical function of defending a settlement’s civic autonomy, it is also held that fortification circuits encompass a variety of symbolic or psychological functions. As is explored in the case of Sparta and the creation of the Arkadian League, opposition to different foreign groups is an important factor for the maintenance of the identity of any ethnic group. Similarly, as Nielsen and Roy maintain, any “analysis of ethnicity should ideally include an exploration of boundary maintenance [between groups].”\(^{32}\) Thus, just as each *polis* had its own physical territory to which it belonged and was identified, each also had a fortification circuit which embodied a symbolic boundary for maintaining the ethnicity with which they identified. Another function inherent in a *polis’* fortifications was as a means of preserving central authority. A populace is more likely to comply with the directives of an acting government so long as there is at least the promise granted of protection from outsiders. Therefore, besides physically protecting a population, the defenses afforded by city walls may also be seen as a psychological force that acts to both control dissent and bind social allegiance.

Finally, regarding the physical construction and general layout of a city’s fortifications, it is held that that city walls are constructed in response to the geographical demands of the city, and natural features like rivers, lakes, hills, mountains, plains, and passes not only determine the layout of a trace, but in most cases are actively exploited by the form and placement of the circuit. A picture of the different fortifications

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\(^{32}\) Nielsen and Roy (1999:21).
characteristic of Arkadian poleis will only be truly comprehensive after considering the choice of site, its available natural resources, its natural defensive capabilities, and the historical circumstances behind its construction. These convictions form the theoretical foundation for the present study and for realizing the objectives contained therein.

1.3 Chronological Range of the Study

As mentioned above, the ultimate objective of the present study is a comprehensive inventory and investigation of the fortifications of Arkadian poleis. With this end in mind, it is important to remember that it is the chronology of the construction of the fortifications specifically and not the date of the foundation of the polis that is most significant. Thus, although the Archaic period witnessed the foundation of a number of settlements and poleis in Arkadia, the development of significant urban centres was a phenomenon of the Classical period – and it is here that we must search to observe the dawn of the fortified polis in Arkadia. Therefore, while fourth and third century BCE fortifications are certainly well-represented in Arkadia, and as such they will form the bulk of this study, it is the late fifth century (ca. 425 BCE) which represents the terminus post quem for the present purposes.

At the opposite end of the spectrum, it seems undeniable that the polis did not disappear forever on 2 August 338 BCE with the allied Greek defeat at Chaironeia; or if “[it] did in any way mark the end of the polis, this was not noticed in Arkadia.” True, the century before that fateful day witnessed the slow decline in the independent city-

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33 In his comprehensive study of Greek fortifications in Archaic period, Frederiksen (2011:176) records the city of Oresthasion as the only fortified Arkadian site from this period. Still, this identification is doubtful, based solely on the observation of a small fragment of wall by Pikoulas (1988:102ff). See Appendix II.
state; first, during the second half of the fifth century BCE as many *poleis* joined the great hegemonic leagues (e.g., Peloponnesian and Delian); and second, during the late fifth and fourth centuries BCE as they became members of the regionally-based federal states (e.g., in Boiotia, Phokis, Lokris, Euboia, Thessaly, Epeiros, Aitolia, Akarnania, Achaia, and Arkadia). What actually disappeared, therefore, with the rise of Macedon and the battle of Chaironeia was not the *polis*, but the hegemonic *polis* (such as Athens, Sparta, and Thebes). In the true meaning of the word, the *polis*, as a small political community of citizens living in an urban centre and responsible for its own political institutions, appears to have not only survived the end of the Classical period, but existed and prospered throughout the Hellenistic period.

Conversely, while acknowledging that Hansen is correct in his assertion that the Greek *polis* continued to flourish into the Hellenistic period (as suggested, for example, by the founding of several new *poleis* early in the period), Camp maintains that “essentially the *polis* ends in the middle years of the second century BCE, with the Roman conquests of Greece.” Camp admits that although hundreds of *poleis* continued to exist after 146 BCE, indeed some of them for centuries to come, after this period effectively no new city-states were founded in Greece. Underlying this conviction is his belief that fortification walls are the domain of *poleis*, and since the construction of walls ends in the mid-second century BCE, then the *polis* too must end in this same period.

Whether city walls were no longer necessary or because the “polis was now only a

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37 Ibid.
38 Ibid.
fossilized remnant [and] no longer a creative phenomenon,"\textsuperscript{41} it is clear that there are no fortifications in Arkadia which should be dated after the Roman conquest of Greece. The destruction of Corinth in 146 BCE, therefore, provides an appropriate \textit{terminus ante quem} to the chronological range for the present study.

1.4 Objectives of the Present Study

The goals of the present study are attainable only through the comprehensive understanding of the fortifications of every Arkadian \textit{poleis} – an understanding which, of course, is reached through the examination of the city walls at the individual site level. The fortification data collected at individual sites as well as the larger patterns revealed through their comparison is applied to meet five primary objectives. Broadly speaking, these objectives include: an accurate chronology for the walls in question; an understanding of the relationship between the fortifications and the local topography; a detailed inventory of all the fortified \textit{poleis} of Arkadia; a regional synthesis based on this inventory; and the probable historical reasons behind the patterns observed through the regional synthesis. In the end, a picture of the different fortifications characteristic of Arkadia from an architectural, topographical, and historical point of view will only be truly comprehensive after meeting all of these stated objectives.

1.4.1 Towards an Accurate Chronology

One issue of especially significant importance regarding fortifications, and consequently the present work, is the question of chronology. Can specific fortifications be dated more precisely than the typical categories of ‘Classical’, ‘fourth century BCE’,

\textsuperscript{41} Ibid.
or ‘Hellenistic’? Of course, the stylistic categories of masonry established by Scranton,\textsuperscript{42} Winter,\textsuperscript{43} and Lawrence\textsuperscript{44} are applicable in this regard, as are pottery, coins, and inscriptions, but to narrow down the date further I consider chronology on the basis of what Ober calls “historical probability.”\textsuperscript{45} This involves an understanding of the local history of a site (and region) in order to postulate a chronology based on the psychology or historical factors that may have influenced or prompted the constructions or modifications of its walls. By considering all of these elements, some sort of chronological range, precise as the extant remains and published information permits, is assigned to each city’s fortifications.

1.4.2 Towards a Relationship Between Fortifications and Topography

A truly comprehensive study of defensive architecture must examine the architecture in minute detail, and this work is no different in this respect. I examine the architectural elements, specifically concentrating on construction techniques of the trace, types of masonry, building materials, as well as the location of quarries or probable stone sources (if known). These same categories of architectural details are applied with the same scrutiny to any extant towers, gates, and posterns. Besides observing the architectural details up close, a comprehensive study of fortifications must also take a step back from the wall as it were and examine the entire trace and its place within the natural landscape. In this regard many things must be taken into consideration. The present work, therefore, considers the size and form of the enceinte, and the provision,

\textsuperscript{42} Scranton (1941:16ff).
\textsuperscript{43} Winter (1971a:69ff).
\textsuperscript{44} Lawrence (1979:232).
\textsuperscript{45} Ober (1985:208).
placement, and measurements of towers, gates, and posterns in extensive detail before taking into account how and to what extent this combination of defensive provisions is actually a reflection of the surrounding natural topography. As it is held that city walls were constructed in response to the topographical demands of the city, the idea of how natural features of the landscape were exploited by the form and placement of the fortification circuit is also addressed.

1.4.3 Towards an Inventory of Arkadian Fortifications

As the ultimate aim of the present work is a detailed study of the development of Arkadian military architecture and defensive planning from the later Classical period to the Roman arrival in Greece, of course, every fortified polis in the region must be explored both individually as well as interregionally. An exhaustive inventory of fortified Arkadian poleis, therefore, will be a collection of the former, and provide the dataset and starting point for an understanding of the latter. As alluded to above, for a variety of reasons, the study of fortifications in Arkadia has not received extensive scholarly attention and with the exception of a handful of thoroughly documented and studied sites, we are largely in the dark, as it were, with regards to the rest. A regional synthesis including an inventory of the fortifications of Arkadian poleis, therefore, is long overdue.

1.4.4 Towards a Regional Fortification Synthesis

An inventory of extant defensive works is an important aspect of the study, but it is only one part. With a catalogue including the details of the different fortifications completed, and once the objectives outlined above have been satisfactorily accomplished, the evidence is applied to interregional comparisons and a general synthesis. Primarily, a
detailed analysis of the site inventory, involving a comparison of the different characteristics of each circuit in question, works towards establishing the existence of shared architectural traits or larger defensive patterns at the regional level. To this end, a number of variables at the individual site level – including geographical location, local topography, chronology of the walls, type of fortification, construction technique, and the nature of the tactical components (towers, gates, posterns) – are taken together and compared to establish observable patterns shared by the fortified Arkadian poleis. Having established the communal characteristics, it remains to provide plausible historical causes which are responsible for these patterns.

1.4.5 Towards an Historical Awareness

The inclusive synthesis of the Arkadian fortification inventory considers more historical factors. Whether it was the unpredictable relationships with Thebes, Macedon, and Rome, the traditional animosity towards their Lakonian neighbours, the participation in the Achaian League, or the foundation of a regional hegemonic confederacy, the history of Arkadia is complex, as it witnessed major historical events involving the principal powers of the time. The question of historical probability considers Arkadia’s historical complexity (relating to both internal and external conditions) and is used to explain why, where, and when the fortifications of the individual poleis appear within the region.

1.5 Limitations of the Study

Before exploring the methodology employed, it is necessary to provide a brief word about the limitations of the study and the themes, which although related, lie
beyond the scope of the present work. There are two associated areas of study that are immediately notable by their absence: Arkadian border forts and the fortification of the poleis of Triphylia. Although the study of known Arkadian border forts would certainly contribute to the overall understanding of both territorial boundaries as well as the larger Arkadian defensive network, it would not significantly contribute to the overall scope of this study, that is, the fortifications of Arkadian poleis themselves. Moreover, as explained below, because autopsy comprises a crucial methodological component, the time and resources required to visit every such known installation, in addition to the numerous poleis under investigation here, were simply beyond the means of the author at the present time.\textsuperscript{46}

It was this same combination of methodological considerations, scope, and resources which is responsible for the omission of Triphylian fortifications. More than just limited by autopsy and the time required to conduct appropriate and thorough investigations, however, it could be argued that the poleis of Triphylia, although technically Arkadian, are beyond the range of a study focusing on ‘original’ Arkadian settlements. As a sub-region (or tribe), Triphylia was not incorporated into Arkadia until the early fourth century BCE, at which time it had fully-formed poleis and associated fortification works. Any attempt to discern regional patterns in regards to the fortifications, therefore, would be unproductive. Finally, it should also be noted that Triphylia remained a part of Arkadia for only a short time, reverting to Elian hands during the second half of the third century BCE.\textsuperscript{47} Although in the future I hope to

\textsuperscript{46} On Arkadian border forts and towers see Pikoulas (1990-91), (1991), (1999c).

supplement the present work with a study of both Triphylian fortifications and Arkadian border forts, such research is beyond the range of the present purposes.

The state of preservation of the remains of the fortifications also imposes a number of limitations on the present study. Although enough of the walls often exist to deduce their original course with a high degree of accuracy, very rarely do the foundations of the circuits of Arkadian poleis exist in their entirety. Similarly, as the population of many poleis inhabited unfortified areas – relying on a nearby fortified acropolis as a refuge in case of emergencies only – determining the extent of these extramural settlements is difficult without intensive archaeological survey. For these reasons, attempting to reconstruct the population size, and by association the available manpower to build and/or patrol the different circuits would be a futile exercise and is, therefore, not attempted here. Furthermore, owing to the limited preservation (and lack of excavation) characteristic of many Arkadian city walls, precise architectural details and internal construction are often unavailable. Finally, as the superstructure does not survive from any of the circuits in question, reconstructions of the original heights of the different city walls would be completely conjectural, and are thus also not provided.

1.6 Sources and Evidence

Although it has been argued that owing to the increasing interest in Arkadian research, this area now represents a “well-illuminated region,” piecing together a comprehensive understanding of its general history remains a complicated task. For instance, while Callmer’s Studien zur Geschichte Arkadiens bis zur Gründung des

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48 What follows is a brief summary of the sources employed in the present study and is not meant to be exhaustive. In the following chapters, the sources and associated evidence are explored in detail on a site per site basis.

49 Nielsen and Roy (1999:13).
arkadischen Bundes (1943), can be said to be the first modern attempt at a history of Arkadia, it is only really concerned with the period of Spartan dominance, and as the title suggests, the work ends before the foundation of Megalopolis. Similarly, Roy’s *Studies in the History of Arcadia in the Classical and Hellenistic Periods* (diss. Cambridge, 1967), picks up the story in the fifth century BCE, largely omitting events of the Archaic period. Finally, even Nielsen’s *Arkadia and its Poleis in the Archaic and Classical Periods* (2002), (certainly the most up to date and arguably the most comprehensive) is selective in its coverage, essentially excluding events after 323 BCE. This short review is not intended to criticize the above works, but to illustrate the fact that an understanding of the history of Arkadia cannot be found in a single all-inclusive composition. It must be sought in a variety of specific studies, aimed at its constituent parts. Research of the region’s fortifications is no different in this respect and requires the collection and integration of evidence from a number of different sources. These sources, taken from the spheres of both history and archaeology, are as extensive and diverse as the evidence itself but can be broadly categorized here under the headings of ancient literature, historical scholarship, archaeological scholarship (including topographical studies and travel writing), scholarship pertaining to ancient Greek fortifications in general, and autopsy.\(^{50}\)

To meet the objectives outlined above, the ancient sources employed are primarily those by authors who have had occasion to mention specifics regarding the historical events surrounding the fortified Arkadian poleis in the chronological period under investigation; for example, authors such as Herodotus, Thucydides, Xenophon, Aeneas

\(^{50}\) As well as being a source of evidence for the sites in question, autopsy is inherently a methodological approach, and will be addressed as such in section 1.7.2 below.
Tacticus, Polybius, Strabo, Diodorus, Plutarch, and Pausanias. Immediately conspicuous by its absence from this list is the *Poliorketika* by Philo of Byzantium. Although an important primary source for the study of Greek fortifications, because this treatise was written around the middle of the third century BCE, it largely falls outside the chronological scope of this study. In any event, this list represents only a selection of the ancient sources employed and is not intended to be comprehensive.

Archaeological and historical investigations focusing specifically on Arkadian subject matter have received a great deal of scholarly attention in the last half-century. Although this literature varies in regards to its immediate relevance to Arkadian fortifications specifically, it has a significant bearing on the overall history of Arkadia, and thus, the contextual history of individual fortification circuits. In addition to the works of Roy, Nielsen, and Callmer cited above, general Arkadian historical scholarship concerning religion, the *polis*, and the economy are also utilized to gain insight on both the contextual history of each site and by association, their fortifications. While the ancient sources and modern historical analyses are crucial elements, it is the evidence derived from autopsy and the archaeological sources which comprises the majority of the data employed in this study. Broadly speaking, the archaeological evidence is drawn from surveys and excavation reports on individual Arkadian sites (and often their fortifications), the written accounts of early modern European travelers in Greece, topographic works, epigraphic, numismatic, ceramic, and, of course, general fortification scholarship.

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51 For an English translation and commentary on the *Poliorketika*, see Lawrence (1979:69-107).
52 An exploration of the most prominent studies pertaining to Greek fortifications is set out in detail in Chapter 3.
1.7 Methodology

1.7.1 Site Selection

Simply stated, for a site to be included in this study, it must have satisfied only two conditions: that the settlement was an Arkadian polis and that it possessed a fortification circuit to some extent.\textsuperscript{53} Discounting the poleis of Triphylia\textsuperscript{54} between the Archaic and Hellenistic period, there are 43 known Arkadian sites whose existence is testified to in either the ancient literary, archaeological, or epigraphic record.\textsuperscript{55} When those sites without fortifications or whose location is suspect are removed, the list is reduced to only 19 candidates appropriate for this study.

List of Fortified Arkadian Poleis Included in this Study\textsuperscript{56}

<table>
<thead>
<tr>
<th>Alea</th>
<th>Halous</th>
<th>Megalopolis</th>
<th>Pheneos</th>
<th>Thelphousa*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alipheira</td>
<td>Heraia*</td>
<td>Methydrion*</td>
<td>Phigaleia</td>
<td>Theisoa (Lavda)</td>
</tr>
<tr>
<td>Asea</td>
<td>Kaphyai*</td>
<td>Nestane</td>
<td>Psophis</td>
<td>Theisoa (Karkalou)</td>
</tr>
<tr>
<td>Bouphagion*</td>
<td>Kleitor</td>
<td>Orchomenos</td>
<td>Stymphalos</td>
<td>Torthyneion*</td>
</tr>
<tr>
<td>Brenthe*</td>
<td>Gortys</td>
<td>Oresthasion*</td>
<td>Tegea*</td>
<td>Trapezos*</td>
</tr>
<tr>
<td>Dipaia</td>
<td>Kynaitha*</td>
<td>Paos</td>
<td>Teuthis</td>
<td></td>
</tr>
<tr>
<td>Eutaia*</td>
<td>Mantineia</td>
<td>Pallantion*</td>
<td>Thaliades*</td>
<td></td>
</tr>
</tbody>
</table>

For the sake of convenience, these sites are grouped into five subcategories based largely on their geographic location but also, where applicable, known tribal affiliations. Chapter 4, therefore, explores the fortifications of eastern Arkadian poleis; Chapter 5, the

\textsuperscript{53} The evidence used to determine whether a settlement was a polis is outlined in detail in Chapter 2, section 2.3.
\textsuperscript{54} See the limitations of the study set out in section 1.5 above.
\textsuperscript{55} This number is derived from ‘Appendix IX’ in Nielsen (2002), in which the author, employing the same lines of evidence as dictated by the general Copenhagen Polis Centre methodology, has determined the probability of a settlement’s polis-status.
\textsuperscript{56} Although the 14 Arkadian sites marked with an asterisk were likely fortified, they are excluded from the main study because no remains of the walls exist, and/or their location or polis-status is uncertain. These sites are catalogued in Appendix 2, including the reason for their exclusion and the most relevant literature pertaining to each site.
northern Arkadian poleis; Chapter 6 deals with those of the west; Chapter 7 with those of the south; and Chapter 8 with the poleis of central Arkadia. Although on the surface such a division of the sites is admittedly arbitrary, it provides a suitable configuration appropriate for the interregional analyses that follow in Chapter 9.

1.7.2 Data Collection

The scope and nature of this study demands that data be collected on the level of the individual site. Accordingly, for each individual fortified polis, data were assembled from two equally important sources: the published historical and archaeological literature as outlined above, and personal reconnaissance, or autopsy. After a careful reading of the literature pertaining to both the polis in question and, if published, their fortifications, the next step was to visit the identified Arkadian sites listed above. This part of the data collection process specifically addressed issues that could not be resolved inside a library. It included walking the trace in order to gain an overall impression of its relationship with the natural topography; carefully recording and photographing details of the extant remains (including building materials, construction technique, and, where possible visible surface pottery), recording the different defensive elements (number and types of towers, gates, and posterns), and measuring with as much precision as possible the dimensions of these defensive elements. To facilitate the data collection process in the field, a number of different recording forms were employed: a general form for

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57 Including the ancient sources.
58 In this case autopsy is supplemented by satellite imagery, topographical maps, and any published plans.
59 These sites were visited (and some revisited) during the winter of 2009, the spring of 2010, and the spring of 2011.
60 All photographs used in the figures are the author’s unless otherwise stated.
61 Measurement of these elements was only conducted by the author on those sites for which a study permit was granted by the Greek Archaeological Service.
observations of the landscape, forms for the details and measurements of the masonry
(construction techniques), towers, gates, trace, and posterns respectively, and finally, a
photographic log.

The use of detailed topographical maps, published plans, and satellite imagery
available from the internet were invaluable supplements to the personal autopsy of each
site and represent an important part of the data collection process. The location of the
sites previously unknown to the author, was determined using the 1:150,000 scale Rama
Editions (ΧΝΠ 164) Αρκαδία [Arkadia Prefecture] map. For more detailed
topographical elements, including distances between sites, site elevations, and the
presence of tributaries and/or seasonal streams, the higher resolution 1:50,000 scale
Anavasi maps were consulted.62 The satellite images provided by both Google Maps and
the specifically Greek website of Κτηματολόγιο,63 were employed to trace parts of
circuits not visible on the ground, to provide measurements (between towers,
approximate lengths of stretches of walls, etc.), and often, to trace the path of (dry)
watercourses which were not clearly discernable by autopsy alone.

1.7.3 Interpretation of Data

Once collected, it remained, of course, to interpret the data. As the product of
autopsy and detailed review of the published literature, much of the data consists of
relatively irrefutable observations. Still, not every observation or deduction was

62 Almost all of Arkadia is available at this resolution in the combined Anavasi maps of Mt. Menalo,
Upland Corinthia, and Mt. Chelmos. Moreover, ancient structures are accurately noted on these maps by
consulting archaeologists such as Y. Pikoulas and Y. Lolos.
63 Google Maps is available at: http://maps.google.ca/; Κτηματολόγιο is available at:
http://gis.ktimanet.gr/wms/ktbasemap/default.aspx. These two applications were especially useful because
they provide satellite images taken at different parts of the year. Those on the Κτηματολόγιο website, for
example, were taken at the height of summer, while the greenery presented in those images from Google
Maps, suggests they were taken in the winter or spring.
completely black and white and some of the data were more open to interpretation. Consequently, methodological clarification is required to explain how the more subjective elements of the dataset, specifically masonry style and chronology, were established for a given fortification circuit.

Although masonry style was often the easier of these two elements to determine, it was rarely a straightforward task. The subjectivity and limitations of establishing unambiguous categories of masonry style are explored in Chapter 3, and examples demonstrating how the traditional classification system breaks down in Arkadia are found in every research chapter of the present work.\(^6^4\) Suffice it to say, that when the style of masonry encountered did not wholly fit the established categories – e.g., completely ‘polygonal’, ‘coursed polygonal’, ‘isodomic trapezoidal’, etc. – it was recorded which style was predominate and which appeared intrusive or secondary. In any event, it appears that the fortifications of the Arkadian poleis are for the most part one of two types, either predominately (coursed) polygonal or predominately (coursed) trapezoidal.

As establishing a reliable chronology for the city walls in question is one of the main objectives of this study, it is important to outline the methodology employed in the process. The chronology for each of the city walls was deduced by carefully weighing all the available evidence, which can be broadly grouped into three main categories: external evidence (ceramics, coins, inscriptions, ancient texts), internal evidence (established defensive architectural affinities, style of masonry,\(^6^5\) as well as comparanda from other Arkadian sites), and historical probability. As few of the sites in question have been

\(^{64}\) That is, the traditional classification system as developed by Scranton (1941).
\(^{65}\) The limitations of using masonry style as a chronological indicator is explored in Chapter 3, section 3.3.7.
systematically excavated, the amount of external evidence available was often limited, and consequently, much of the dating involved relevant comparanda and historical probability. In this regard, avoiding circular reasoning was paramount. It is easy to fall into the trap of relying on a single piece of evidence – for example, noting that the presence of posterns suggests a late date and thus, the date is late because it has posterns. On the other hand, it is acceptable to say the circuit is late as a result of the cumulative body of evidence – e.g., because it has posterns, late coins, late pottery, and since a late date fits with the known history of the area. Ultimately, it is important to remember that the very nature of the evidence itself guarantees that the established chronologies for the circuits are the most uncertain aspect in the present study. Nonetheless, even if we are able to only speak in generalities, by employing multiple categories of evidence we are able to get that much closer to the truth.
Chapter 2: Arkadia as a Clearly Defined Study Area

Besides being a clearly defined geographical area in antiquity, Arkadia also comprised an ethnic identity, both at the regional (ethnos) and local (tribe/polis) level; the latter also corresponds to the primary political unit of the region. Thus, as the ultimate objective of the present study is a comprehensive inventory and investigation of the fortifications of Arkadian poleis, it is important to outline how these study units are defined. This chapter establishes Arkadia and its poleis as a clearly defined area of focus for the present study, by outlining the evidence for an Arkadian identity at the regional level and how a polis identity may be determined for individual settlements.

2.1 Arkadia as a Geographical Concept

As the only landlocked region in the Peloponnese, Arkadia is distinguished geographically from other regions largely by its almost exclusively mountainous character (including the valleys and plains lying among them) and its associated system of drainage [Fig. 2.1].66 The main beneficiaries of this system, the Alpheios River in the south and both the Erymanthos and the Ladon Rivers in the north and west, are able to collect the winter rains and spring thaws. In eastern Arkadia and parts of the north, there are no major rivers or tributaries to direct the flow of surface drainage outward, and instead the system relies on the drainage of excess water into sinkholes (katavothroi) in the limestone.67 Although most of Arkadia is mountainous, there is very fertile land to be

66 Contemporary maps show the prefecture of Arkadia to include a stretch of coast on its eastern side, approximately between the towns of Kiveri in the north and Fokiano in the south. This is a modern geographical division. The eastern extent of Arkadia in antiquity did not extend to the Argolic Gulf, but to the mountains defining the eastern limits of the plains of Tegea and Mantinea (Nestane).
67 E.g., as at Stymphalos and Pheneos.
found in the well watered valleys, basins, terraced hillsides, and especially in the great plains of eastern Arkadia, dominated in antiquity by the *poleis* of Tegea and Mantineia.

![Map of the Peloponnese](image)

**Fig. 2.1. Map of the Peloponnese**

The physical geography of the region, however, can only go so far in defining Arkadia, since it is clear that the ancient borders of the region, rarely static, were defined by historical and social organization, as well as by geography. Nielsen maintains that between the late Archaic and Classical periods, Arkadia not so much formed its own borders, but had its borders negatively formed – i.e., the region of Arkadia was defined when the surrounding regions became settled and developed with fixed borders.  

Moreover, Nielsen is surely correct in supposing that this trend arose from the fact that Arkadia itself was not a regional political concept before the foundation of the Arkadian

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Federation.69 If this is accepted, it remains to determine exactly when the territorial boundaries were formed and Arkadia became a clearly defined geographical concept. We know that Herodotus,70 Thucydides,71 and Xenophon72 perceived Arkadia as a distinct region within the Peloponnese by the fifth century BCE. Keeping in mind that the geographical borders of Arkadia were known to fluctuate to some extent over time, enough evidence exists to reasonably establish the geographical extent of Arkadia before the Classical period.

Although limited by the paucity and consistency of sources for the period, by employing a combination of literary/historical, epigraphic, and archaeological evidence, a number of settlements can be seen to have existed and been considered Arkadian already in the late Archaic period.73 Based on the Catalogue of Ships, it would appear that Archaic Arkadia included Pheneos, Orchomenos Tegea, Mantinea, Stymphalos, and the communities of Parrhasia, Stratie, Enispe, and Rhipe.74 Moreover, based on the assumption that all eponymous Arkadian-named towns should be Arkadian, Nielsen maintains that owing to Hesiod’s mention of Pallas as a son of the Arkadian king Lykaon, then Pallantion too should be considered as part of Arkadia in the late Archaic period.75 Hekataios supplements this list with the settlements of Mainalos, Kleitor, Trapezous, and Psophis;76 while from Herodotus we get Nonakris, Phigaleia, and Paos being described as

70 E.g., Hdt.7.202.
71 E.g., Thuc. 5.29.1.
72 Eg., Xen. Hell. 7.4.36.
73 What follows is a brief overview. All relevant historical and archaeological evidence is explored on an individual site basis in Chapters 4-8.
74 Hom. Il. 2.605-08. Parrhasia is an area west northwest of Lykosoura and Trapezous. Stratie, Enispe, and Rhipe are otherwise unknown.
76 Hekataios [FgrHist 1] fr.6.
Arkadian. Finally, based on inference (i.e., on the geographical location between attested Archaic period sites), as well as epigraphic verification, Nielsen argues that Heraia and Lousoi were also probably Arkadian in the late Archaic period.78

Based on the early sources, therefore, the late Archaic borders of Arkadia appear to have extended from Psophis in the northwest to Phigaleia in southwest (including Heraia), eastward to include Parrhasia, Trapezous, Pallantion and Tegea, north towards Mantinea, Orchomenos, Stymphalos, Pheneos and Nonakris, and northwestward to Kleitor, Paos, and Psophis. Nielsen reasonably considers Thelpousa, Thaliades, Kaphyai, and Methydrion also to be Arkadian as they are areas situated within these borders.79 Constrained by the nature and scarcity of evidence, this “picture of Arkadia in the late Archaic period probably represents its minimum extent.”80 Nonetheless, this brief review of the territorial limits of the region demonstrates that most of the settlements that constitute Classical Arkadia can already be considered Arkadia by the late Archaic period.81

Fortunately, the geographical extent of Arkadia is better documented in the Classical period. While it would be an argument from silence to assume that the communities attested for the first time in the Classical period (e.g., Kynaitha, Alea, and Alipheira) may not have belonged to the Arkadians earlier in the Archaic period,
evidence suggests that the region of Arkadia was certainly enlarged during this period [Fig. 2.2].

82 Also, as Nielsen contends, there is “no reason to believe that Arkadia ‘lost’ any of its Archaic communities in the Classical period; in fact, Arkadia seems to have slowly grown throughout the Classical period.”

83 Employing the same logic to

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82 Nielsen (2002:105). The growth of the region is best attested to by the addition of Triphylia. This region, however, for reasons outlined in Chapter 1, is omitted from the present study.
determine that Pallantion was Arkadian in the Archaic period, the fact that Kynaitha and Alipheira are mentioned as sons of Lykaon by Apollodoros (likely citing a fifth century BCE source), it could be argued that these settlements belonged to Arkadia at least in the Classical period, if not earlier.84 A further example of this growth is the acquisition of the Elian settlement of Lasion, which, according to Xenophon, was laid claim to by the Arkadians in 390 BCE;85 thus, in Lasion we may have an example of a city ‘becoming’ Arkadian during the first quarter of the fourth century BCE.86

In the Classical period and into the Hellenistic period, there is a further number of communities in the region which are explicitly attested to as Arkadian; these include Alea, Amilos, Asea, Euaimon, Kaphyai, Gortys, Kynaitha, and Lykaia.87 The fact that the expansion of the region during this time was limited and occurred soon after the foundation of Megalopolis is a reflection of the larger political history of the Peloponnese. Conversely to the Archaic period, where it appears that the borders of Arkadia were formed only as the more powerful and stable surrounding states (i.e., Sparta, Argos, and Elis)88 were settled with defined borders, the acquisitions of Arkadia in the middle of the fourth century BCE were based on its own strength and were facilitated by the weaknesses of the major powers surrounding it.89 The years following Leuktra not only witnessed Spartan supremacy being largely eliminated in the Peloponnese, but also the creation of Megalopolis and the foundation of the Arkadian

84 Apollod. 3.8.1.
85 Xen. Hell. 3.2.30.
88 Elis was not really ‘settled’ until the synoikism of 471 BCE. For a detailed account of Elian and Arkadian relations, see Roy (2000).
Confederacy. Arkadia, arguably for the first time in its history, gained a distinctly formalized regional political identity. Important for the present purposes is to keep in mind that while it is true that the oscillations of the borders of Arkadia experienced were largely conditioned by the shifting political power of the region in relation to the major Peloponnesian states, it should not obscure the fact that by the late Archaic period the region comprised what we traditionally take to be Arkadia.

Looking in from the outside, it is a relatively simple task to define ancient Arkadia geographically as a mountainous region in the centre of the Peloponnese that had more or less reached its accepted extent by the end of the Archaic period. Any definition of Arkadia, however, would be deficient without also taking into account not only how it looked to those on the inside, but also how they saw themselves. It is necessary, therefore, to briefly review the recent scholarship as it pertains to Arkadia’s internal social organization through its different ethnic identities.

2.2 Arkadia as an Ethnic Concept

Roy maintains that the region of Arkadia was more of a ‘human’ concept than a strictly geographical or political one; indeed, “it was the land of the Arkadians,” and as such, it was as much a social entity as anything else, and therefore rarely static. For instance, people from other states not in Arkadia, as defined above geographically, could

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90 It is generally held that the Arkadian federation lasted until dissolved by Alexander the Great in 324 BCE, but Roy (1968:238-79) believes it lasted into the third century BCE, only breaking down when Arkadian communities like Megalopolis joined the Achaian League.
91 For arguments of whether there existed an earlier fifth century BCE Arkadian confederation, see Nielsen (1996c) and Roy (1972a).
93 Roy (1968:20).
come to see themselves as Arkadian based on a believed (mythical) shared descent.\textsuperscript{95} To understand the social organization and what exactly it meant to be ‘Arkadian’, we have to understand how identity was constructed, both from within Arkadia and imposed from without, and how the levels of identity interacted within Arkadia itself.\textsuperscript{96} There were essentially two different levels of identity negotiating at all times: at the level of \textit{ethnos} and at the level of the individual \textit{polis} or tribe. Situation (external or internal stimuli) would, of course, dictate which of these identities was stressed at any given time and to what degree.

In his \textit{The Ethnic Origins of Nations} (1986), Smith maintains that ethnicity “would appear to be more suited to cultural rather than biological or kinship differences; it is the similarity of cultural attributes in a group that attracts the term \textit{ethnos}.”\textsuperscript{97} These cultural attributes, by which an ethnic group can be identified, are grouped into six main categories.\textsuperscript{98} If Arkadia does indeed comprise an ethnic group, then these distinguishing cultural characteristics should be visible in the historical and archaeological record.

The first identifiable feature of an ethnic group is the existence of a collective name.\textsuperscript{99} From the late Archaic to Classical period, literary and epigraphic evidence suggests that the regional ethnic \textit{Arkas} was used to indicate the ethnicity of the people described by it.\textsuperscript{100} Furthermore, as the uses of the ethnic are found both in Arkadia and from contexts external to the region, “we can conclude that a common name, \textit{Arkades}, was used to name the Arkadians in general as a people and that this name was in use both

\textsuperscript{95} E.g., the city of Lasion and region of Triphylia.
\textsuperscript{96} Nielsen and Roy (1999:8-10).
\textsuperscript{97} Smith (1986:21).
\textsuperscript{98} Ibid., (1986:22-31).
\textsuperscript{100} Nielsen (1999:27).
inside and outside the region.”101 Second, ethnic groups will often share a common myth of descent or ancestry.102 Such myths work to explain similarity between the members of an ethnic group, to cement the coherence of the group, and to explain the origins, growth, and destiny of a group.103 That the region shared a common myth of ancestry is certain and one need look no further than the genealogical accounts of Hesiod, Asios of Samos, and others handed down to us by Pausanias.104 The third distinguishing characteristic is a group’s perception of shared history, which functions to both unite successive generations and to define the group in terms of experienced temporal sequences.105 While the Arkadians did share a historical fate, both in myth and in history, Nielsen argues that in a *polis* culture, where traditionally each city-state was most often concerned with its own peculiar fate, any factual “shared history was presumably of secondary importance in creating ethnicities.”106

The fourth feature characteristic of an ethnic group is a distinctive shared culture, which “both help to bind members together and separate them from outsiders.”107 Common shared and distinctive Arkadian traits in this category include, language, religion, customs, laws, architecture, dress, food, music, and the arts. The fifth identifiable feature of an ethnic group is its association with a specific territory, which

102 Smith (1986:24-25).
104 E.g., Pausanias (8.4.3) tells us that Elatos, the third son of King Arkas, founded the eponymous city of Elateia in Phokis. This myth formed the basis of the perceived ancestral relationship between the cities of Elateia and Stymphalos (named after a son of Elatos); the latter receiving refugees when the Elateians were driven from their city by the Romans in the early second century BCE. This event is attested in an inscription found at Stymphalos (see Williams and Schaus 2001:76-77). For comprehensive mythical Arkadian genealogy see Pausanias 8.1-6. For its value as a source and relationship to ethnicity see Hall (2002:25ff).
107 Smith (1986:26).
they perceive as their own.\textsuperscript{108} Smith further outlines three characteristics that such a territory should possess: commemorative association, external recognition (i.e., by non-members), and sacred centres.\textsuperscript{109} While it has already been determined that Arkadia is associated with a specific territory, the fact that examples of the ethnic are found both in the region and from contexts external to it, demonstrates both a commemorative association with the region and that their ethnicity was a distinct feature in the eyes of non-Arkadians.\textsuperscript{110} Finally, Nielsen tells us that of the 22 instances where the uses of the ethnic are found within Arkadia, all derive from the sanctuary at Mt. Lykaion, strongly suggesting “that the Arkadians felt a connection with the cult of Zeus Lykaios and their own ethnic identity and unity.”\textsuperscript{111}

The sixth and final characteristic is a sense of active solidarity, which “in times of stress and danger, can override class, factional or regional divisions within the community.”\textsuperscript{112} While this awareness may lay dormant owing to external circumstances, it is always potentially present.\textsuperscript{113} Although there was not likely a true Arkadian Confederacy before the foundation of Megalopolis, an Arkadian sense of solidarity was manifested earlier in the form of ‘leagues’ or looser organizations.\textsuperscript{114} For example, it is probable that an alliance (symmachia) existed at some time in the period 479-465 BCE; this alliance was predictably anti-Spartan in character, and perhaps headed by Tegea and

\textsuperscript{108} Ibid., (1986:28-29).
\textsuperscript{109} Ibid., (1986:29).
\textsuperscript{110} Nielsen (1999:27).
\textsuperscript{111} Ibid., (1999:28).
\textsuperscript{112} Smith (1986:30).
\textsuperscript{113} Nielsen (1999:19).
\textsuperscript{114} Larsen (1968:xiv-xv) equates confederacies with federal states “in which there is a local citizenship in the smaller communities as well as a joint or federal citizenship and in which the citizens are under the jurisdiction both of federal and local authorities.”
excluding Mantinea.115 Similarly, it is possible that there was an Arkadian religious association (amphictyony) in the fifth century BCE which was united in a religious association centred around the cult of Zeus Lykaios.116 The establishment of the Arkadian Confederacy in ca. 370 BCE and the foundation of Megalopolis in ca. 368 BCE, however, are the most obvious examples of the Arkadian ethnos embodying a sense of active solidarity; in this case, largely in opposition to Sparta. Indeed, for many Arkadians, opposition to Sparta was an essential feature of Arkadian identity.117

While Smith’s criteria for identifying an ethnic group are especially valuable for differentiating between Greeks and non-Greeks, here we see that they can also be applied to distinguish regional ethnicities within Greece itself. Nonetheless, a degree of caution is warranted for the simple reason that the Arkadians were Greeks, and accordingly, it is unlikely that their culture differed significantly from those of other ancient Greeks.118 Although they did not differ to any large extent, there were differences: they shared a common name, a belief in their common mythical origin and history, had a distinctive shared culture, were associated with a specific territory, and exhibited a sense of active solidarity. In short, the Arkadians constituted an ethnic group. At the social, cultural, and political level, however, it is important to note that the Arkadian ethnos, while defining the region and the general social organization, was of secondary significance for internal

115 Hdt. 9.35.2.
organization. Instead of identity at the regional level, we must search for identity at the level of the individual *polis* or tribe, the primary political units of ancient Arkadia.

As demonstrated above, the Arkadians constituted an ethnic group with a distinct regional identity. In addition to the *ethnos* encompassing what it meant to ‘be Arkadian’, however, at the intra-regional level there were also a number of smaller units in which identity manifested itself locally. Specifically, this *ethnos* was subdivided into the groups, ‘tribes’ and *poleis*; thus, “whether *polis* or tribe, every community had its own local identity as well the larger Arkadian identity shared by the region.” Finally, although the regional identity was not formally politicized until the foundation of the Arkadian Confederation in ca. 370 BCE, the sub-regional identities appear to have always corresponded to political units.

The Arkadian tribal states (or sub-ethnic federations) “united several communities in an ethnic relationship, without promoting any one settlement to a leading position.” All in all, there were five sub-regional ‘tribes’ in Arkadia existing at various times between the late Archaic and Classical period: the Azanians, the Eutresians, the Kynourians, the Mainalians, and the Parrhasians. The Azania tribe was located in northern Arkadia, but disappeared before the Classical period. Parrhasia, Mainalia, Eutresia, and Kynouria, all located in south and southwestern Arkadia, survived in

123 Roy (1968:135).
124 Excluded from this list are the Triphalian and Tripolis tribes, the former for reasons mentioned earlier, and the latter for a lack of substantial evidence. For an outline of what very little is known of the Tripolians, see Jost (1985:216-219). For a complete list of attested Arkadian communities and their tribal affiliation, see Nielsen (1996a:146-48).
various degrees down to the synoikism of Megalopolis and even beyond.\textsuperscript{125} While these tribes comprised several communities, each of which would have handled most of its own affairs, the state was based on the tribe as a whole.\textsuperscript{126} Largely focusing on the relatively well-documented Mainalian tribe (from which conclusions can be made regarding the others), Nielsen convincingly argues that many of its constituent communities were indeed \textit{poleis}.\textsuperscript{127} For example, by examining the major features characteristic of ordinary \textit{poleis},\textsuperscript{128} he demonstrates that in the Classical period, the tribal settlements of Oresthasion, Asea, Eutaia, Helisson, Pallantion, and possibly Mainalos and Dipaia were not only “called \textit{poleis} in a rather loose sense, but that they were \textit{poleis} in the sense of political communities.”\textsuperscript{129} Furthermore, although ten Mainalian communities were absorbed by Megalopolis, the fact that the Mainalians were also members of the Arkadian Confederacy on a tribal basis, confirms that as a tribal state, it existed before and after the synoikism.\textsuperscript{130}

Interestingly, of the major \textit{poleis} of Arkadia (Tegea, Mantinea, Heraia, Orchomenos, and Stymphalos), not one of them is described by the ancient sources as being affiliated with a larger tribal group. Accordingly, it has been suggested that tribes were perhaps founded by smaller communities, not only based on a perceived shared ancestry and geographic proximity, but also in an attempt to shield themselves from the threats constituted by these larger \textit{poleis}.\textsuperscript{131}

\textsuperscript{125} Nielsen (1996a:117).
\textsuperscript{126} Nielsen (2002:14).
\textsuperscript{127} Nielsen (1996a:134ff).
\textsuperscript{128} I.e., characteristics established by the Copenhagen Polis Centre methodology. See Hansen (1994).
\textsuperscript{129} Nielsen (1996a:138).
\textsuperscript{130} Ibid., (1996a:134).
\textsuperscript{131} Ibid., (1996a:142).
Related to the question of why these tribal states arose is the question of when they developed; specifically, whether the tribal state or the member-polis developed first. While acknowledging both the quality and quantity of the limited information and putting together several lines of evidence, Roy argues that it is most likely that tribal identities developed before the fifth century BCE and thus predated the widespread development of poleis.\textsuperscript{132} At the root of his argument is his conviction that “it is difficult to believe that any tribe emerging in Arkadia at so early a date was a coalition of poleis, and much easier to believe that constituent communities of the tribes – or some of them – developed as poleis after the tribe had emerged.”\textsuperscript{133} His conclusion, however, does not presuppose that all Arkadian tribal associations developed in the same way from an organization of non-poleis. Thus, while suggesting that this is the rationale “in the majority of cases,”\textsuperscript{134} he admits that there were still communities having a fully developed polis identity before the Classical period.

Although the literature cited above provides an idea of when and perhaps also why the tribal identities may have developed, we are unfortunately in the dark as to how such tribes arose or how they functioned before the fifth century BCE.\textsuperscript{135} In the Classical period, however, it is clear that both tribes and poleis appear to have fulfilled the same purposes and exercised the same functions as an independent state.\textsuperscript{136} Both Nielsen and Roy point to the Arkadian federal decree as the most obvious confirmation of this fact.\textsuperscript{137}

Among those magistrates representing specific poleis such as Megalopolis, Mantinea,

\textsuperscript{133} Roy (1996:110).
\textsuperscript{134} Ibid.
\textsuperscript{135} Ibid.; Nielsen (1996a:117).
\textsuperscript{136} Roy (1996:108).
\textsuperscript{137} Nielsen (1996a:140); Roy (1996:108).
and Tegea, the decree also lists representatives of the Mainalian and the Kynourian tribes. Furthermore, it appears that the striking of coinage\textsuperscript{138} and the mobilization of troops\textsuperscript{139} could also be carried out on either the tribe or member-	extit{polis} level. Whether as a member of a larger tribe or a 	extit{polis} with no tribal affiliation, every Arkadian community possessed its own local identity as well as the larger Arkadian identity shared by the region. As the regional identity was never really successfully politicized,\textsuperscript{140} it was primarily these identities which formed the basic political unit for the social organization of the region. In the late Archaic and Classical periods, therefore, we see Arkadia organized into a number of major 	extit{poleis} such as Orchomenos, Stymphalos, Heraia, Tegea, Mantinea, and Megalopolis, as well as the five tribes, themselves each comprised of a number of 	extit{poleis} and smaller settlements. By the late fourth century BCE, however, these tribal communities (and their associated identities) all but disappeared from Arkadia, leaving the 	extit{polis} alone as the primary unit of social organization in the region.\textsuperscript{141} The synoikism of Megalopolis and the disappearance of these tribes demonstrate that Arkadia was “under continuous development as far as 	extit{polis} structure is concerned, a development that lasted into the Hellenistic period.”\textsuperscript{142}

\textsuperscript{138} As a tribe, the Parrhasians struck coins in later fifth century BCE, roughly contemporary with those minted by the Mainalian 	extit{polis} of Pallantion (Roy 1996:111).

\textsuperscript{139} It is known that the Mainalian tribe sent troops to fight with the Spartans in 418 BCE, and the failure to mention the Kynourian tribe (of which it was a member) in a dedication of spoils at Delphi made by Gortys in the first half of the fifth century BCE suggests that troops could be mobilized independently from the rest of tribe (Ibid., 1996:111).

\textsuperscript{140} The Arkadian Confederacy of the fourth century BCE was only successful in as much as it was instrumental in breaking up Spartan hegemony in the Peloponnese; with Sparta neutralized, “the external stimulus for the politicizing of Arkadian ethnicity was gone and it was never hereafter a vital political factor” (Nielsen 1999:60).

\textsuperscript{141} Nielsen (1996a:142).

\textsuperscript{142} Ibid.
2.3 Arkadia as a Political Concept

Crucial for justifying a regional study of Arkadia, is the established fact that the ancient Greeks perceived Arkadia as a geographic concept with a clearly defined territory. Similarly, it has been demonstrated that the people of Arkadia comprised an ethnic group in which identity was manifested on both a regional (ethnos) or local (tribe/polis) level. Moreover, it is this local level of identity which corresponded to the internal social and political organization. Although briefly touched on above, it is this point that will be explored in greater detail here, specifically the polis and how this characteristically ancient Greek institution developed in Arkadia. As the present work considers the fortifications of Arkadian poleis, it is important to establish the criteria behind how a polis is defined, and by association, to identify which Arkadian states were in fact poleis.

In their attempt to answer the seemingly simple question of what defines a polis, research from the Copenhagen Polis Centre (CPC) has shown the answer to be anything but straightforward. In fact, recent research has shown that many of the characteristics previously used to define a polis are in fact unreliable.\(^{143}\) With the ultimate aim of producing a comprehensive inventory of all Archaic and Classical poleis, the CPC has turned away from the many (and often conflicted) definitions of what a polis is or should be, and instead has focused on the ancient evidence for individual city-states by collecting detailed information about all the communities actually called polis in sources.\(^{144}\) The historical and archaeological evidence employed by the CPC, thought to be supportive of a community’s identity as a polis, largely includes the use of the city-


\(^{144}\) Hansen (1994:9).
ethnic,145 epigraphic data (public enactment of laws/decrees146 and theorodoki147), some types of political architecture, the striking of coinage, and also the ancient literary sources.148 A catalogue of Archaic and Classical poleis, identified by the criteria above, is not the only objective established by the CPC, but merely provides the foundation for addressing a number of issues (including the revision of a number of accepted beliefs), which, having a direct bearing on the present work, are briefly summarized here.

First is the commonly held belief that as an institution, the polis was formed before the colonization movement of the mid-eighth century BCE. In fact, the evidence suggests that it is more likely that the features central to the polis (urbanization, splitting of population into citizens and foreigners, introductions of political institutions) may have developed in the colonies before they became prominent in Greece itself.149 Second is the idea that by definition poleis had to have autonomy. Evidence gathered through the CPC does not support the idea that autonomia was an essential aspect of the concept of the polis. As long as it still had its political institutions, the loss of autonomy (e.g., joining a confederation or hegemonic league) did not affect a community’s identity as a polis.150 Third is the misconception that when the term polis designates a town, it must be

145 Although the city-ethnic could often be used as a geographical adjective, it was most often used in a political sense (Hansen 1995:7). On use of city-ethnics see Nielsen (1996a).
146 The public enactments of laws (nomoi) and decrees (psephismata) were usually the jurisdiction of poleis and larger federations; and such decrees, of course, “presuppose the existence of boule and a boule is characteristic of the polis or larger political unit such as a federation” (Hansen 1995:7). For laws and decrees as evidence see Rhodes (1995).
147 The epigraphic attestation of theorodoki (those who received the people sent to announce panhellenic festivals, the theoroi) are also suggestive of a polis, since most of the communities visited by the theoroi were indeed poleis (Hansen 1995:7). See Perlman (1995).
148 Although not characteristics of poleis in their own right, some main types of political architecture (a bouleuterion, a fortification circuit, a prytaneion, etc.), and the striking of coinage, when taken together, may suggest a community’s designation as a polis (Hansen 1995:7). On architecture and the polis see Miller (1995) and Hansen and Fischer-Hansen (1994); on the minting of coins see Guettel Cole (1995).
distinguished from *polis* in the sense of political community. There are examples of *poleis* in the Archaic period whose political centre was not focused around an urban centre. By the Classical period, however, every attested *polis* seems to have been centred around an urban core (walled or unwalled), and “whenever the term *polis* is used in the sense of conurbation it denotes a town which was also the political centre of the *polis* in the sense of the political community.”¹⁵¹ Fourth is the notion that the division of territories into clearly defined regions can be traced back to the Archaic period, if not earlier. This hypothesis is certainly true in the case of Arkadia as demonstrated above.¹⁵² And sixth, a rejection of the belief that the *polis* ended with the Greek defeat at Chaironeia. Although admitting that the truly independent *polis* began its decline a century before Chaironeia, the *polis* as a functioning political institution did not end on that day in 338 BCE, but flourished in the Classical period and survived to the end of the Hellenistic period.¹⁵³

In the proceeding chapters, this work will follow the methodology and explore the assumptions laid out by the CPC as it pertains to specifically Arkadian *poleis*.¹⁵⁴ Essential in this regard, however, is not only what evidence is to be employed in establishing the characteristics corresponding to Arkadian *poleis*, but how and when the *polis* as a social, political, and cultural institution developed in Arkadia. As demonstrated above, evidence suggests that Arkadia existed as a geographic concept with a distinct regional ethnic identity by the late Archaic period. It does not necessarily follow,

¹⁵¹ Ibid.
¹⁵² See section 2.1 above.
¹⁵⁴ The general methodological rules established by the Copenhagen Polis Centre are set out in detail by Hansen (1994).
however, that at that time, all of the communities comprising the Arkadian *ethnos* or existing in its clearly defined territory were *poleis*, or indeed, even significant conurbations. Still, although Roy convincingly argues that in most cases the tribal states developed before the widespread development of *poleis*, he admits that there were still communities that had a fully developed *polis* identity before the Classical period.  

Yet how do we identify which settlements specifically were *poleis* before the Classical period, and how do we reconcile this information with the fact that true urban centres do not appear to develop in Arkadia until the fifth century BCE?

In his *Arkadia and its Poleis in the Archaic and Classical Periods* (2002), the only definitive study devoted to Arkadian *poleis*, Nielsen aims to “[identify] those Arkadian communities that ranked as *poleis* in the eyes of the Greeks at different points in time from the Archaic period to the end of the Classical period.” At the core of this work is the evidence and criteria utilized to establish a settlement’s *polis*-identity, and more importantly here, when *poleis* developed in Arkadia. Although Nielsen believes that some Arkadian settlements were viewed by the ancient Greeks as *poleis* in the late Archaic period, he is careful to draw attention to the fact that there is no general agreement as to when *poleis* developed in Arkadia. In defense of his view, however, Nielsen finds support in the historical and archaeological record.

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157 Ibid., (2002:159ff). A detailed review of the evidence establishing the probability of a settlement’s identification as a *polis* is explored on a site per site basis in Chapters 4-8.
158 Ibid., (2002:159). E.g., Callmer (1943:67-70) maintains that Tegea was synoikized into a *polis* already in the seventh century BCE; Borgeaud (1988:10) vaguely maintains that the important centres in Arkadia appeared relatively early; Jeffery (1976:170-72) believes that the significant settlements of Orchomenos, Tegea, Phigaleia, and Mantinea existed as *poleis* as early as the mid to late eighth century BCE (i.e., at the time of the First Messenian War); Gehrke (1986:154) argues that *poleis* developed in Arkadia in the sixth century BCE; while Snodgrass (1980:154) denies *polis* status to all the settlements of Archaic Arkadia.
Based largely on the work of Morgan¹⁵⁹ and Jost,¹⁶⁰ Nielsen points to the large number of Archaic temples in Arkadia as verification of the existence of both organized local communities concerned with desire to express local identity, and local territories (i.e., temples as boundary markers) by the late Archaic period.¹⁶¹ Furthermore, by the end of the Archaic period, at least some communities had begun the minting of coinage.¹⁶² Coinage, like the act of temple-building, “indicates that the community responsible had developed a high degree of complexity and capacity for communal decision making.”¹⁶³ As suggestive as the archaeological evidence mentioned above may be, it must be noted that nowhere in the Archaic sources is any Arkadian settlement referred to as a *polis*.¹⁶⁴ We are not completely in the dark, however, and there are other sources at our disposal from which inferences can be drawn. Pausanias, for example, preserves a late Archaic inscription erected at Olympia by the Kleitorians recording the dedication of the spoils of many defeated *poleis*.¹⁶⁵ If we assume that these *poleis* were neighbouring Arkadian *poleis*, then it follows that the people of Kleitor found it conventional to use the term *poleis*, and because it was set up at a great panhellenic sanctuary, that the use of the term had the same meaning to all Greeks.¹⁶⁶ This example demonstrates just one of the ways by which it may be shown that by the late Archaic period Arkadia did have *poleis*, even if we cannot identify them in this specific case. Based on deductions similar to this,

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¹⁵⁹ Morgan (1999).
¹⁶⁰ Jost (1985).
¹⁶² E.g., Heraia in ca. 510 BCE (Ibid., 2002:185).
¹⁶⁴ For the problematic cases of Lousoi and Ptolis (Old Mantineia), see Nielsen (2002:199) and Morgan (1999:390-93, 417-20).
¹⁶⁵ Paus. 5.23.7.
however, as well as a careful examination of the historic and archaeological record (including epigraphic and numismatic evidence), Nielsen has identified no fewer than sixteen Arkadian communities “that may have been poleis before the end of the Archaic period.”\textsuperscript{167}

If these communities can be considered \textit{poleis} as defined by the criteria of the CPC, then, as Nielsen maintains, their appearance at the end of the sixth century BCE is explained by local Arkadian communities joining “the panhellenic network of \textit{polis}-interaction, something which was bound to have an influence on self-perception and the way of organizing themselves.”\textsuperscript{168} Such a network involving the interaction of Greek \textit{polis}-culture may explain why certain characteristics (e.g., increased temple building, minting of coins, etc.), appear around the same time in different parts of late Archaic Greece.\textsuperscript{169} Moreover, while this may go to some lengths in explaining the development of Arkadian \textit{poleis} as political communities, we still know very little about the physical organization of Arkadian communities before 600 BCE.\textsuperscript{170} In other words, although there is little evidence of significant urbanization before the late Archaic period that can be established archaeologically, what evidence does exist suggests that the beginnings of urbanism came relatively late to Arkadia.\textsuperscript{171} For the present, therefore, the fact that it is very likely that certain Arkadian \textit{poleis} existed by the late sixth century BCE is in no way

\begin{footnotesize}
\textsuperscript{167} These include Heraia, Kaphyai, Gortys, Kleitor, Lousoi, Mantineia, Nonakris, Orchomenos, Paos, Pheneos, Phigaleia, Psophis, Stymphalos, Tegea, Thaliades, and Thelphousa (Ibid., 2002:212ff).
\textsuperscript{168} Ibid., (2002:220).
\textsuperscript{169} Ibid., (2002:223).
\textsuperscript{170} Ibid., (2002:225).
\textsuperscript{171} Nielsen and Roy (1999:12).
\end{footnotesize}
irreconcilable with the fact that the development of ‘true urban centres’ in Arkadia was a product of the Classical period.\textsuperscript{172}

\textsuperscript{172} Nielsen (2002:171); Roy (1996).
Chapter 3: Greek Fortifications: Scholarship, Technology, and Terminology

The focus of this study is the fortifications of Arkadian poleis. While the previous chapter established Arkadia as a clearly defined and appropriate study area as well as the criteria for plausibly verifying a settlement’s identity as a polis, it remains to explore in detail the second part of the equation, that is, Greek fortifications. Thus, before investigating the defenses of specific Arkadian poleis it is necessary to appreciate the various architectural components, their relationship to each other and the landscape, as well as the larger historical, political, and social factors which not only influenced their appearance, but their very existence. In order to better understand these concerns several diverse yet related elements are addressed below. Beginning with an examination of the changing disciplinary tendencies as revealed by a review of the literature about Greek fortifications in general, this chapter also considers the overall and intrinsic defensive objectives behind the construction of a city wall, including its relationship to the surrounding topography. Furthermore, the form and general function of a Greek circuit is explored through a brief inventory of its constituent elements (towers, gates, etc.). Not only does this provide an explanation of the architectural terms and categories which are employed extensively in subsequent chapters, but also establishes the variety of construction techniques and masonry which are instrumental to the stylistic dating of the Arkadian circuits under discussion.

As significant as these factors are to an overall understanding of Greek fortifications, it is important to remember that a city’s defenses are more than the sum of its parts; and the placement of a circuit, its relationship to the natural topography, and the interaction of its various architectural components can only take us so far down the road
to understanding a fortification’s form and function. This picture is bound to remain incomplete without due consideration of the nature of ancient Greek warfare and its evolution in the Classical and Hellenistic periods. As is so often the case, spurred on by the shifting political and historical happenings of the time, this evolution witnessed several new technological innovations developed in its wake. And here, the shift in emphasis from the time-honoured pitched hoplite battles to the introduction of artillery and its use in siege warfare had a direct impact on the fortifications. Specifically, while developed initially as an offensive weapon in the fourth century BCE, it was not long before the defensive capabilities of artillery were realized and fortifications were built or updated accordingly. Since the science of fortifications is inseparable from the study of siege craft, “and an understanding of one is essential to the understanding of the other,” the development of this relationship and its repercussions for Arkadian fortifications specifically are also addressed.

3.1 Previous Scholarship on Greek Fortifications

Scholarly interest in the fortifications of mainland Greece can be traced in the literature as far back as the early 19th century – a time when the sites and antiquities of a newly independent Greece were viewed with a renewed appreciation by western European travelers. While the fortifications of the sites they encountered were admittedly not their primary concern (nor were they Pausanias’, in whose footsteps many of them followed), as they were often the most conspicuous remains on the surface, the walls could not be ignored. Thus even if their classifications of architectural details were

\[173\] Winter (1971a:x).
imperfect, writers like Dodwell, Leake, and Gell\textsuperscript{174} have left us important observations about the walls of several sites from which we may learn something about the remains at the time. More scientific in their approach was the French \textit{Expédition de Morée}.\textsuperscript{175} Again, however, although the publications from this scientific/military expedition contain accurate and detailed measurements of the ruins they encountered (largely focused on Olympia and Bassai), their interest was largely in the architecture and ancient engineering and not in the historical development of Greek fortification circuits.\textsuperscript{176} Finally, around the middle of the century there appeared a prodigious output of geographical and historical studies of Greece led largely by German and British, but also French travelers and scholars such as Ross, Curtius, Rangabé, Clark, Bursian, Wyse, and Welcker.\textsuperscript{177} Their works, like those cited above were not primarily concerned with fortifications specifically; yet when city walls are mentioned, they generally conform to the early disciplinary tendency regarding the study of Greek fortifications which stressed observation rather than architectural development or historical contextualization.

It was not until the late 19\textsuperscript{th} and early 20\textsuperscript{th} century that Greek fortifications received more than passing scholarly interest as a derivative of larger topographic projects and began to mature into an independent field of study. Thus, we see arguably the first survey of fortifications focused on the more theoretical aspects concerning form and function with \textit{Principes de la fortification antique} by d’Aiglun, published in 1881. That is not to say, however, that topographical works did not continue to contribute

\textsuperscript{174} Dodwell (1819, 1834); Leake (1830); Gell (1831).
\textsuperscript{175} On Arkadia, see Boblaye (1836:137-168).
\textsuperscript{176} Winter (1971a:xiii).
\textsuperscript{177} Ross (1841); Curtius (1851); Rangabé (1857); Clark (1858); Bursian (1862); Wyse (1865); Welcker (1865).
significantly in this regard. In fact, one of the most useful works for the present purposes is Frazer’s unparalleled commentary *Pausanias’ Description of Greece* published in 1898 in six weighty volumes. Not only did the author cover an incredibly large area, usually providing accurate architectural descriptions and the nature of the terrain traversed by the walls, but he carefully traced as much of a circuit wall as possible, and this perhaps “made him more aware than others [before him] of strategic considerations.”\(^{178}\) If this was not enough of a contribution, it is important to note that in many cases Frazer’s descriptions of the walls of certain sites remain today the only detailed published account. An equally valuable early topographic source for the study of Greek fortifications (especially Arkadian ones) is Hiller von Gaertringen and Lattermann’s *Arkadische Forschungen* (1911). More than simply providing useful plates and measurements of certain Arkadian circuits based on their own observations, the authors, indicative of the evolving disciplinary tendency, often attempt to understand the strategic importance of the walls by placing them in their proper historical context.\(^{179}\)

While scholarship in the first half of the 20th century continued to emphasize architectural details, the accurate description of masonry styles, and their stylistic relationships, the study of Greek fortifications was still plagued by the problem of differing terminology.\(^{180}\) It was not until 1941 with the appearance of Scranton’s *Greek Walls*, that the problem of terminology was “finally reduced to a reasonably ordered

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\(^{178}\) Winter (1971a:xiii-xiv).  
\(^{179}\) There are a number of other more modern works which are also the products of firsthand observation and although they contribute little to the study of fortifications, are equally valuable for the present study. For example, Jost (1985), Howell (1970), Papahatzis (1994), and Pritchett (1969, 1989) all have occasion to mention and describe to some degree the fortifications of various Arkadian poleis.  
\(^{180}\) Frazer and Dodwell, for example, employed their own different classification systems.
system.”¹⁸¹ This work is primarily a chronological study with the specific aim of
developing a sequence of masonry styles and little attention is given to larger defensive
considerations. Nonetheless, its scope and detail confirm the fact that this work represents
more than just an “introductory phase”¹⁸² of the discipline as Scranton humbly maintains,
but instead a landmark publication in the study of Greek fortifications – a study that
would reach its maturity three decades later.

From Dodwell to Scranton, the first hundred years of the study of Greek
fortifications evolved from passing scholarly interest based on observation with minimal
description (often indistinguishable from larger topographic studies) to an independent
discipline regulated by proper archaeological standards. Yet, all of these earlier works
tended to concentrate on purely architectural details of the walls in their present
fragmentary state, and there seemed to be little interest in the larger picture. It was not
until 1971 and the publication of Winter’s *Greek Fortifications* that this apparent lack of
interest was finally confronted. In his attempt to put all of the pieces together to form a
better understanding of the basic principles of design for a given circuit and ultimately
the larger contextual picture, Winter combines the earlier disciplinary tendencies of
topographical observation, detailed measurements, and masonry styles with
complementary considerations given to choice of site, natural resources and water supply,
and historical circumstance. Furthermore, a crucial component of the work deals with the
more theoretical and strategic aspects of Greek walls, including the form, function, and
placement of their constituent parts (towers, gates, trace, etc). While such considerations

¹⁸¹ Winter (1971a:xv). The traditional styles of masonry have since been refined by others and are
addressed in detail below.
¹⁸² Scranton (1941:5).
may today seem an obvious part of any study concerning defensive architecture, at the time it represented an innovative approach and one that remains influential.

Although Winter’s *Greek Fortifications* remains the seminal work on the subject, the discipline has not been idle in the forty years since its publication.\(^{183}\) Of note is Lawrence’s *Greek Aims in Fortification* published in 1979. Like Winter before him, Lawrence explores the development of the different components of city walls across the Greek world, the construction techniques involved in building them, the historical circumstances behind their necessity, and their evolution in response to technological innovation. Furthermore, other now (or soon to be) standard handbooks in the discipline are Adam’s *L’Architecture militaire greque* published in 1982, McNicoll’s *Hellenistic Fortifications: From the Aegean to the Euphrates* published posthumously in 1997, and most recently, Fredericksen’s *Greek City Walls of the Archaic Period*, published in 2011. What all of these works hold in common is their general panhellenic focus. From the Greek mainland to Asia Minor and from Italy to the Near East, until relatively recently, one characteristic of the discipline was an attempt to trace, categorize, and classify Greek military architecture in all its guises throughout the Mediterranean. But perhaps, in Typaldou-Fakiris’ *Villes fortifiées de Phocide. Et la 3e guerre sacrée (356-346 J.C.*) published in 2004, we are witnessing the continued evolution of the discipline.

Besides this present work, Typaldou-Fakiris’ study of the fortifications of Phokis remains the only other study concerning fortifications in Greece conducted within a regional scope. Such an approach has the potential to shed light on a number of issues. As mentioned, it is a common practice in archaeology to identify regional affinities, for

\(^{183}\) For a detailed summary of the work during the early part of this period, see Winter (1982).
example, in ceramics, fine arts, letter-forms, or architecture, and to employ such styles for chronological purposes or the identification of imported/exported influences. It seems that the same should hold true of fortification building as well.\textsuperscript{184} Thus, instead of searching for panhellenic patterns, perhaps the disciplinary focus should be narrowed to the individual site in a given region. Indeed, Scranton maintained 70 years ago that “the most valuable contributions have been made in the form of monographs on individual sites,”\textsuperscript{185} and similarly, Winter believes that “the advantages of studying a single site…was demonstrated by Martin’s work on the walls of Gortys in Arkadia.”\textsuperscript{186} Although the focus of the present research is the region of Arkadia, it is ultimately the study of the individual sites that comprised this area.

### 3.2 Strategic Development of Arkadian Fortifications

#### 3.2.1 Choice of Site

Choosing the location of a site was first and foremost governed by defensive considerations (both strategic and tactical) and thus it is not surprising that such thoughts had a strong influence on the science of town-planning in all periods of Greek urbanization.\textsuperscript{187} Here the strategic concepts ultimately include site selection and ideas governing the positioning and location of the walls.\textsuperscript{188} McNicoll maintains that many factors influenced the thinking of military architects in this regard: “the terrain, [the] state of siege warfare, potential attackers, availability of defenders, and (of course) finance.”\textsuperscript{189}

\textsuperscript{184} Camp (2005:44).
\textsuperscript{185} Scranton (1941:9).
\textsuperscript{186} Winter (1971:3-4).
\textsuperscript{187} McNicoll (1997:4).
The availability of natural resources for the wall’s construction (e.g., suitable stone and clay deposits), as well as access to a water supply should be added to this list. That these considerations were known to the ancient Greeks is clear from a passage in Aristotle, who tells us that “for the purpose of military activities it should be easy of egress for its inhabitants, but difficult to approach or blockade for any enemies. It should also have, if possible, a natural supply of waters and streams.” But the ideal city of Aristotle also had to take health, politics, and commercial convenience into account. In short, therefore, the balance lay in choosing a site that had to be above all easily defendable, although not necessarily hard to access.

Unlike the Romans, who, with the aid of fired brick and concrete were able to fortify their settlements wherever suited them, Greek military architects tended to take advantage of natural defenses afforded by the surrounding topography when laying out their city walls. Thus, a common feature of many older settlements was an acropolis. But as implied by Aristotle, it was important that such a hill be defendable without being too high or inaccessible. And naturally, it was crucial for an acropolis to be close enough to protect the arable land in its territory. Thus, we commonly see early sites located at the edge of a plain, often on the tip of a spur which extended from the flank of a mountain and linked to its main mass by a narrow saddle. Indeed so prolific are these types of fortified sites that they prompted Gardiner and Jevons to mildly exaggerate, that “whenever the traveller in Greece sees before him a detached hill advancing from the main range into one of the plains...he is at once almost sure that he is looking at the site

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191 Winter (1971a:4) maintains that this conflict between defensive security and commercial convenience “was inevitable in any society whose basic unit was the city-state.”
192 Ibid., (1971a:6).
of an early city.” The goal, therefore, was to choose an accessible acropolis, in which walls would complement and strengthen the existing topography and ensure that the houses of the settlement located on the slopes of the hill were within a convenient distance of both the citadel above and the fields below.

During the early Iron Age, acropoleis that fulfilled these requirements were chosen for settlement and although they generally relied on the natural strength of the site, if fortification walls were added at all, they only worked to enclose sections of the hill. Furthermore, when these old cities began to flourish in the Archaic period, it appears that very few of them extended their circuits very far beyond the original nucleated acropolis. Yet, even when the circuits were constructed outside the limits of the original acropolis, the growth of the circuit probably did not keep pace with the city’s subsequent growth. The reason for this is directly related to the nature of warfare in the Archaic period; that is, until the great developments in siege craft witnessed in the subsequent centuries, the larger Archaic cities simply never had a need to drastically overhaul their defenses. At that time, siege operations had been of limited importance, for as mentioned, the outer city had often been partly or entirely unwalled, and siege engines could not easily be brought against a steep, naturally defended acropolis. Instead, as Winter maintains, the rise of siege craft and development of increasingly complex military architecture that occurred from the fifth century BCE onward is linked to the increasing frequency of city-circuits being built on open and easily accessible

193 Gardner and Jevons (1895:10).
194 Lawrence (1979:208).
195 Winter (1971a:54).
196 Ibid., (1971a:56).
197 The relationship between fortifications and evolving siege warfare is addressed in detail below.
terrain. If this is true, then it must be asked what would cause settlers to come down from the relative safety of their hilltop citadels to the plains below. The answer is water.

From the beginnings of Greek urbanization, defensibility appears to have been the main motivation for choice of a site as well as planning the defenses of its acropolis. Inseparable from this incentive, however, was the need for a consistent water supply. If a citadel and the lower city possessed an adequate water supply, then, of course, the needs from both a social and military standpoint were met. If, however, a citadel previously depended on cisterns, then as the town expanded, the fortifications would have had to be extended beyond the acropolis to ensure access to the water within the confines of the lower city. In fact, Winter maintains that a lack of water in these early fortified citadels may have actually encouraged the expansion of the settlement into the plain, and this extension in turn would have forced the growth of the defensive circuit in order to protect both the buildings and a ready water source in the plain. As city walls were extended to include the quarters of the city beyond the confines of the acropolis, it followed that siege engines could be more readily brought against them. Consequently, the increasing menace posed by siege engines led in turn to the building of higher and stronger walls and ultimately to a greater interest in the provision of natural defenses in all parts of the circuit when selecting the site for a new city.

Prompted by the beginnings of systematic siege craft, the security of a city came to depend increasingly on its fortifications in the Classical period. Such security required that the walls be both strong and take every possible advantage of the surrounding natural

\[199\] Ibid.,
\[200\] Ibid., (1971a:49).
\[201\] Ibid.
\[202\] Ibid., (1971a:57).
topography, including water supply. If, however, inhabitants were forced to choose between a site’s natural strength or a reliable water supply, founders of a new city would often select the former. As cities grew larger, therefore, procuring water for every day use frequently became a problem; combined with the increasing elaboration of military architecture, this imposed a severe economic burden on some sites during the Classical and Hellenistic periods. Indeed, as mentioned above, sites suitable for an acropolis are extremely common almost everywhere in the Greek mainland (especially in Arkadia), yet “there are not nearly so many locations that combine the defensive qualities of the early acropolis with a good local water supply and enough space for the building of a complete city.” Consequently, many cities were forced to restrict the length of their circuits. In Arkadia, where many circuits date to this period, we see that compact and easily defensible sites are common. Accordingly, the expansion of settlements from the acropolis into the surrounding lowlands also saw the defensive importance of its original citadel decrease in proportion to the strengthening of the man-made defenses of the outer city.

Identifying the criteria behind a site’s ‘ideal’ location is easily done on paper, yet it is important to remember that many of the major mainland poleis had some form of

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203 Although some opted for the latter. For example, Winter notices that a great deal of the Arkadian settlements mentioned by Pausanias did possess a good water supply. This is an especially significant observation. As demonstrated in the previous chapter, urbanization in Arkadia was a relatively late phenomenon. As most Arkadian poleis were founded at a time after the main military aspects of town planning had already been developed on the mainland, the presence of abundant mountain springs and streams, characteristic of many Arkadian sites, “may well have determined, or at the least influenced, the final choice of site” (1971a:52).

204 Ibid., (1971a:58).


207 Ibid., (1971a:58). This sometimes resulted in the absence of an acropolis altogether. In Arkadia, for example, while many cities still possessed an acropolis, it generally bore little resemblance to the steep and hard to attack citadels of earlier times. Instead, it functioned more as a strategic post from which one could observe the whole trace and direct defensive operations.
settlement that went back centuries and difficulties encountered in the Classical and Hellenistic periods had to be dealt with. In other words, whether compelled by an increased need for water to meet the requirements of an expanding settlement, or whether developments in offensive siege warfare revealed inadequacies in the natural terrain, it was rarely practical to abandon and re-establish a city elsewhere.  

Defensive military engineering, therefore, was forced to keep pace with its offensive counterpart in order to compensate for both a site’s topographical inadequacies as well as the evolving theatre of Greek warfare. Thus, the experience accumulated in the Iron Age and Archaic period was beneficial when town planners began to lay out new cities in the late Classical and Hellenistic periods to meet the new circumstances of their times. In this regard, military engineers of the Classical and Hellenistic periods had at their disposal “a wealth of experience of the features which did not constitute an ideal site, [and] were far better qualified to pronounce in favour of one location over another than they would have been without the hard-won knowledge of earlier centuries to guide them.”  

To this extent, the development of military strategy in the Hellenistic period can be said to have grown directly out of the earlier achievements of the fifth and first half of the fourth century BCE. The nature of those achievements in turn was, in large measure, determined by the historical background of the early Iron Age and Archaic periods.

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208 Winter (1971a:4). See also, Demand (1990). Not surprisingly, it is in these older more established centres that we see the most rapid advances in the sciences of fortifications to compensate for any topographical shortcomings.


210 Ibid.
3.2.2 Arkadian Settlement Patterns

Whether in the Bronze Age, the early Iron Age, or the Archaic period, the most important *poleis* of the Greek mainland of the Classical period had some form of earlier settlement. Still, new cities appear in more remote areas in the fifth and fourth centuries BCE, in regions which were primarily agricultural and pastoral, Arkadia being one of them. Similar to other regions of Greece, Arkadia possessed several different types of these fortified settlements, three of which seemed to have been particularly popular; here I categorize them as the ‘acropolis type’, the ‘horizontal type’, and a combination of the first two, the ‘uneven type’.

The ‘acropolis type’ is found in the smaller settlements and is characterized by a more or less isolated peak or rock face rising sharply from the surrounding landscape (often above a deep river gorge), with some gently sloping land within reach of the summit. Sites of this type which readily come to mind include Teuthis (modern Dhimitsana), Nestane, and Halous. While many of these smaller fortified mountain sites appear to conform closely to the typical acropolis of earlier *poleis* described in the preceding section, Winter cautions that it was not uncommon for even small villages to have a small fortified citadel. At any rate, whether *polis* or village, such sites rarely provided sufficient space for a settlement of any size.

The second, or ‘horizontal type’ of fortified settlement is a category reserved exclusively to *poleis* in the larger agricultural regions of Arkadia. Unlike the ‘acropolis type’ of settlement, here the situation is reversed and we see inhabitants entrusting their

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211 Winter (1971a:40).
212 Modified from Winter’s (1971a:32ff) categories of ‘acropolis’ and uneven types.
safety completely to the security provided by a man-made circuit.\textsuperscript{215} The \textit{poleis} of Mantinea and (presumably) Tegea in the great eastern plains of Arkadia are the most obvious examples of this type. As suggested by the label, the main characteristics of these types of circuits include a trace laid out over generally even terrain without a recognized acropolis. Winter maintains that this type of fortified settlement supports the conclusion drawn from other Arkadian sites that from the mid-Archaic period to the fourth century BCE, the importance of an acropolis to the overall defensive structure of the defenses of a Greek city steadily decreased, and was frequently dispensed with altogether.\textsuperscript{216}

The third and final category of Arkadian fortified sites is the ‘uneven type’. This type is characterized by those larger settlements for which some high ground, either level or unevenly terraced, was incorporated into the overall trace. Although some of the circuit may be located on relatively flat terrain, these fortifications take advantage, wherever possible, of natural defenses and consequently are usually rather rugged and forbidding in their appearance.\textsuperscript{217} This type is found, for example, at Phigaleia, Psophis, Kleitor, Stymphalos, and Alea, where, instead of focusing on a small strong acropolis or trusting completely to the walls themselves, the circuits sought to incorporate a much larger defensible area – one that found balance in the active interaction between the defensible topography and the strengths of the walls themselves. That is not to say, however, that in this category of sites the inclusion of an acropolis was abandoned altogether, as many of these later Arkadian cities did possess a separate acropolis which was maintained until quite later times. Nonetheless, while in earlier times the acropolis

\textsuperscript{215} Ibid., (1971a:32-33).
\textsuperscript{216} Ibid., (1971a:33).
\textsuperscript{217} Ibid., (1971a:32).
alone had been chosen for its defensive qualities, in the Classical and Hellenistic period, such defensive considerations were sought around the whole perimeter of the city.\(^{218}\)

It must be noted that although such categories may exhibit some chronological patterns, they are not primarily chronological classifications. That is, there is no sense of sequential evolution from one type to another. Thus, even into the fourth century BCE and through the Hellenistic period, we see *poleis* relying heavily on natural defenses. Similarly, the acropolis almost always remained a prominent feature in the city plan, even if it came to lose much of its original social and political significance.\(^{219}\) Even so, these settlement types form convenient categories, with little overlap, into which the extant fortifications of Arkadian *poleis* explored in the subsequent chapters may be placed.

The sheer number of surviving fortifications in Arkadia demonstrates not only a relative lack of continuous occupation through post-Classical, medieval, and modern times,\(^{220}\) but also testifies to the extensive spread of urbanization during the Classical period. By the time many city walls appeared in Arkadia, therefore, regular siege techniques had already been developed and the inclusion of a large population within the walls often had to be considered from the very beginning.\(^{221}\) Accordingly, in order to keep pace with developments in offensive siege warfare, the larger defensive strategies involved in site selection, water procurement, and type of fortification trace had to also

\(^{218}\) Ibid., (1971a:31).
\(^{219}\) Ibid., (1971a:34).
\(^{220}\) For example, Teuthis, Tegea, and Kynaitha are the only Arkadian *poleis* now buried beneath modern settlements: Teuthis by Dhimitsana, ancient Tegea by modern Tegea, and Kynaitha by Kalavryta.
\(^{221}\) Winter (1971a:34).
incorporate important tactical strategies. Ultimately, such strategies were manifested in
the form and placement of the individual features of a fortification circuit.222

3.3 Materials and Construction Techniques

3.3.1 Building Materials

The only regular materials for building a fortification circuit were stone and mudbrick.223 Besides the availability of water, therefore, the ideal location for a site would also have possessed a suitable stone supply and clay deposits in its vicinity. As explored above, Greek military architects rarely missed an opportunity to exploit the landscape in the constructions of their fortifications. Whether it be in the placement of the walls to take maximum advantage of the natural defenses afforded by the topography, or in the exploitation of the natural resources necessary for its assembly. In the case of the latter, it was discovered early that clay, more specifically sun-dried mudbrick, was an effective and expedient building material. Unskilled workers could make a mudbrick circuit rapidly and with little equipment, unquestionably saving a great deal of money and labour.224 Perhaps more importantly for military engineers, mudbrick is virtually fireproof and practically indestructible to the weather when its surface is properly protected.225 Moreover, the Greeks believed that a mudbrick wall could withstand the assault of rams and artillery better than their stone counterparts.226 Yet the advantages of mudbrick have to be carefully weighed against their limitations. For example, the manufacture of

223 The main materials could also be supplemented by timber, but its use was normally restricted to providing accessories to the brick and stone (Lawrence 1979:208).
224 For a detailed summary of the process whereby mudbricks are made see Lawrence (1979:210-211).
226 Pausanias (8.8.8) tells us that, “against the blows of engines brick brings greater security than fortifications built of stone. For stones break and are dislodged from their fittings; brick, however, does not suffer so much from engines, but it crumbles under the action of water just as wax is melted by the sun.”
mudbrick required a copious amount of both water and suitable clay – a type with a consistency that would not crumble or turn to mud. Moreover, although it may withstand the shock of artillery better than a stone wall, a mudbrick superstructure is easily breached if an enemy succeeded in reaching the base of a wall. Finally, as a building material, mudbrick is very susceptible to water and there are at least three historically attested examples of a besieging force attempting to use water to cause a breach in a mudbrick fortification circuit.229

The limitations of mudbrick and, of course, the availability of material, certainly played a part in the preference for a stone (or a partly stone) superstructure. Indeed, as Lawrence suggests, since few sites possessed both raw materials in sufficient quantities, it is unlikely that an architect could freely choose between mudbrick or stone, but instead the choice would be made for him based on the available resources. Unlike temples or prominent civic structures, moreover, when stone was employed in the construction of fortifications, it was more likely to be built from a source that was closest and most accessible. This is especially true on a rocky acropolis, where stone could be quarried at the spot it was required and put together in less time than would be spent in making and setting an equivalent number of mudbricks. Although few sites could produce the quantities of mudbrick required, rock suitable for building is available at an immensely

228 Lawrence (1979:213).
229 Coincidently, two are Arkadian examples. In 385 BCE the walls of Mantinea were breached when Agesipolis of Sparta dammed the river that ran through the town causing the water to rise and melt a section of the mudbrick fortifications. Similarly, in 392 or 370 BCE Iphikrates attempted and ultimately failed to take Stymphalos by blocking the katavothros of the adjacent lake with sponges in the hopes of causing the lake level to rise and undermine the mudbrick walls (Stab. 8.8.4).
larger proportion of sites.\textsuperscript{232} The availability of stone and its perceived strength may account for the general tendency of replacing mudbrick with stone witnessed in the Greek world from the fifth century BCE onward.\textsuperscript{233} Yet, as the types and quality of stone found in the various parts of Greece could vary considerably (they could vary too within the same region), the preference for stone walls is also a reflection of the later emphasis “on aesthetic, as opposed to purely structural, considerations.”\textsuperscript{234} Finally, it should be noted that although fortifications with a stone or partly stone superstructure became more common in the later Classical and Hellenistic period, they never fully replaced the mudbrick ones – this is especially true in Arkadia.

Based on how and in what arrangement these raw materials were employed in construction, fortifications can be divided into three main groups: mudbrick walls on a stone socle, walls in which the curtains and ground stories of towers were of stone and the battlements and upper portions were of mudbrick or wood, and walls built entirely of stone. As it is not desirable for large number of subdivisions in classifying all the stages between walls made of bricks and those in stone, Winter maintains that if one division is to be made, it should be made at the top of the curtain at the level of the sentry-walk (\textit{parodos}), since everything below this level comprises the main structural mass of the wall.\textsuperscript{235} As there are no examples of Arkadian fortifications built entirely out of stone, therefore, and employing Winter’s suggestion, the following analysis is concerned exclusively with the first two categories.

\begin{footnotesize}
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  \item \textsuperscript{232} Lawrence (1979:213).
  \item \textsuperscript{233} Winter (1971a:77).
  \item \textsuperscript{234} Ibid., (1971a:73, 78-79).
  \item \textsuperscript{235} Winter (1971a:70).
\end{itemize}
\end{footnotesize}
3.3.2 Mudbrick Walls on a Stone Socle

As attested to by both the literary and archaeological evidence, mudbrick fortifications were fairly common on the mainland and are preserved or assumed to have existed at sites dating from the Geometric through Hellenistic periods. As the heading suggests, these types of circuits are characterized by a superstructure predominately consisting of coursed mudbrick erected atop a stone foundation. Because mudbrick very rarely survives, a general rule for identifying circuits of this type is the presence of a stone socle that is noticeably level along the top.236 Unfortunately, for a variety of reasons this may be difficult to recognize among the surviving portions of some circuits. For example, in those cases where the socle itself may have been removed or has partially disappeared, it may be impossible to determine if the upper sections of the wall were originally brick or completely stone. This is not, however, an insurmountable problem. Generally, it is safe to assume a mudbrick superstructure in those cases where the preserved stone foundation is less than 1.50 – 2.00 m in height, and as mentioned, both the faces and the fill have a reasonably flat surface.237 Finally, it is important to consider that a stone socle on which the wall rests may vary in height, not only between different circuits, but in different parts of the same trace. Winter explains that the reason for such variation often lies in the nature of the terrain traversed by the wall – e.g., at the bottom of hills where water (rain/snow) was likely to gather, higher foundations would be required than on flatter areas.238

236 Ibid. This rule applies to the irregular mass of the central fill as well as to the interior and exterior facing blocks.
237 Ibid., (1971a:71). Lawrence (1979:212) implies that a stone foundation can be identified in cases where it rises to a height “beyond a man’s reach.”
238 Winter (1971a:69).
Mudbricks were formed by taking a suitable clay and reinforcing it with straw, animal hair, or even potsherds. The material was then poured into wooden frames, open at the top and bottom, dumped out, and allowed to dry. Although this ensured some variation in height, their lengths and widths remained fairly regular. From the fifth century BCE onward, for example, mudbricks were usually square in section, ranging between 40 and 50 cm$^2$ with a height between 8 and 10 cm.\textsuperscript{239} Like modern baked bricks, dry mudbricks were laid in courses but set with wet clay (identical to that from which they were made) instead of mortar.\textsuperscript{240} The dangers of water to the integrity of the superstructure was a constant concern and one that required precautions to be taken from the ground up, at every level of its assembly. The first courses were set atop the stone socle and prevented contact with standing water; the exterior faces of the wall were covered in a water-proof lime plaster;\textsuperscript{241} and the top was protected by tiles, or if it had a parodos, by a layer of packed earth or thin stone slabs.\textsuperscript{242}

3.3.3 Stone Walls with Battlements and Tower Chambers of Brick and Wood

The second type of fortification is mudbrick and/or timber battlements and tower chambers erected atop stone curtains. Winter maintains that examples in this category are often overlooked since remains of wood and brick are likely not to have left any trace.\textsuperscript{243} That they existed, however, is attested by examples of some stone fortifications that appear well-preserved up to the level of the parodos, but do not have a single stone in

\textsuperscript{239} Lawrence (1979:211); Fields (2006:11).
\textsuperscript{240} Lawrence (1979:211).
\textsuperscript{241} This white-wash not only prevented damage from precipitation, but would act to absorb moisture from within the wall (Ibid).
\textsuperscript{242} Ibid.
\textsuperscript{243} Winter (1971a:73).
place above this point (either on the curtain or towers). The ancient literature also attests to the existence of this category of circuit, albeit usually in the context of urgent defensive situations. Herodotus says that “stones, bricks, timber, and baskets full of sand were used in the building” of the wall built hastily across the Isthmos in 480 BCE; and Thucydides writing of when the Plataians increased the height of their walls when besieged by a Spartan ramp in 429 BCE, writes “seeing the mound rising [they] constructed a wooden frame, which they set upon the top of their own wall opposite the mound; in this they inserted bricks taken from the neighbouring houses.”

Although these sources describe timber and brick being employed as emergency measures in the fifth century BCE, by at least the fourth century BCE, these were used as important structural components of permanent fortifications as well. Aeneas Tacticus, writing in the first half of the fourth century BCE, mentions mosynes, which are interpreted as referring to some sort of wooden tower placed either outside the circuit or as an observation post placed inside the circuit. Although the latter interpretation is the more plausible explanation, they would still not be very practical from a defensive standpoint. Winter, therefore, believes Aeneas was describing wooden towers in the wall itself, or more specifically, their upper chambers. Not only must such elements have been common enough in the fourth century BCE for Aeneas to mention them, but since

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244 Ibid., (1971a:76).
245 Hdt. 8.71.
246 Thuc. 2.75.4.
247 “ἐπειτ’ ἂν τινες ὠςι τῆς πόλεως ἡμέραις ἔστιν ἡ τεῖχεος τι, χρή τούτως υπάρχειν πρὸς τὸ μὴ ἐμπίμπρασθαι ὑπὸ τῶν πολεμίων πύλους καὶ βύθος πρὸς τὴν ἐπαλέξιν” (33.3).
248 Winter (1971a:75).
battering rams were common by that time, the wooden portions must have been reserved for the upper stories, while the lower parts remained in stone or mudbrick.\textsuperscript{249}

Apart from tower chambers, wood was also probably employed atop the curtains chiefly for the battlements and the crenellations (together with mudbrick).\textsuperscript{250} Wood and mudbrick employed in this way would have been quite feasible in the fifth and early fourth centuries BCE.\textsuperscript{251} As with those circuits with mudbrick superstructures, there is a general rule for identifying circuits of this type among extant remains. In this case, however, the evidence on the site itself is necessarily of a purely negative character.\textsuperscript{252} In other words, this type can be identified in those cases where the extant remains include stone curtains standing almost to their full height (lacking any remnants of a parapet), with stone towers standing only a single storey high. Faced with these remains, we may assume that “the \textit{mosynes} and other wooden portions mentioned by Aeneas Tacticus perhaps occurred on walls of this type.”\textsuperscript{253}

3.3.4 Internal Structure of Curtain Walls

Whether a curtain was built predominately of mudbrick or worked stone blocks, such components rarely comprised an entire solid wall.\textsuperscript{254} Instead, as a general rule masonry would be employed only on the outer and inner surfaces of a wall, leaving a hollow centre behind the facings which was then filled by inferior material [Fig. 3.1]. The cheapest and most expedient filling material was gravel, earth, discarded tiles or

\textsuperscript{249} Ibid., (1971a:76).
\textsuperscript{250} Ibid. See Fig. 7.20 for an image of the reconstructed crenellation atop the wall of Gortys.
\textsuperscript{251} Ibid., (1971a:77).
\textsuperscript{252} Ibid., (1971a:73).
\textsuperscript{253} Ibid., (1971a:77).
\textsuperscript{254} Unless in those rare occasions where a wall was extremely thin and were less than two blocks in thick (Lawrence 1979:214).
mudbricks, and pieces of rock – in other words, whatever materials lay at hand.\textsuperscript{255}

Packing with readily available material such as these, preferably in combination, was especially necessary in curtain walls where the width to be filled averaged about 2 m.\textsuperscript{256}

When these materials were used together, the earth worked to keep the larger components from shifting and exerting excessive outward pressure.

![Diagram of wall construction]

\textit{Fig. 3.1. Schematic drawing showing internal construction of walls}

The most common approach, however, for combating such pressure and increasing the overall strength and stability of the curtain, was the construction of perpendicular bonding courses placed at regular intervals throughout the thickness of the wall. Although Lawrence argues that “more often than not, the mere weight of the facings was thought sufficient to ensure their stability,”\textsuperscript{257} the placement of these partitions dividing the interior into a number of chambers added considerably more stability and more importantly, permitted the construction of circuit walls on steep gradients.

Normally, these cross walls were only one block thick in each course and the resultant

\textsuperscript{255} Ibid.
\textsuperscript{256} Ibid.; Winter (1971a:132).
\textsuperscript{257} Lawrence (1979:214).
chambers were filled solid. Moreover, they could be relatively crudely constructed and were rarely bonded to the facings of the curtain. The reason for this, Lawrence maintains, is a fear of lateral thrusting.\footnote{258} That is, if the pressure exerted by the fill was too great (especially on steep gradients) it might cause the cross wall of its compartment to shift also. In this unfortunate situation, if the cross wall was bonded to the main facings, then any lateral movement could undermine the structure of the facings, and ultimately, the entire section of the curtain.

3.3.5 Assumptions Concerning the Masonry of Greek Walls

It was first suggested almost two hundred years ago by Dodwell during his travels in Greece that a wall may be dated based on the style of masonry or the details of construction.\footnote{259} Subsequent refinements by Noack, Wrede, and Scranton,\footnote{260} have added significantly to the study, and much of their work still forms the foundation on which rests the dating of many Greek fortifications.\footnote{261} Unfortunately, however, although the idea of an evolutionary sequence of masonry is very appealing (e.g., cyclopean to polygonal to ashlar), such a universal succession of styles does not always stand up to close examination.\footnote{262} The works of these scholars, therefore, while useful, must always be “referred to only with extreme caution, since they are oversimplifications of a field which may eventually prove to be almost without order.”\footnote{263}

\footnote{258} Ibid., (1979:215).
\footnote{259} For Dodwell’s contribution see Views and Descriptions of Cyclopean or Pelasgic Remains in Greece in Italy (1834).
\footnote{260} Noack (1927); Wrede (1933); and Scranton (1941).
\footnote{261} Winter (1971a:80); Camp (2000:41-42); McNicholl (1997:3); Lawrence (1979:235).
\footnote{262} Snodgrass (1982:128); McNicholl (1997:3).
\footnote{263} McNicholl (1997:3).
That being said, and acknowledging that it is beyond the scope of the present study to attempt to refine or identify a valid panhellenic sequence of masonry, it is held here that in a particular region at a certain time a sequence may be arranged or a predominant style identified.\textsuperscript{264} Thus, although the scholarship cited above is valuable for its contribution toward a general system of classification and a regularity of terminology, caution is always warranted because some Greek walls refuse to be categorized so neatly.\textsuperscript{265}

3.3.6 Classification and Treatment of Masonry

70 years ago, Scranton observed that “until those interested in the subject come to a common ground on the matter of terminology, further progress is impossible.”\textsuperscript{266} Accordingly, the following outline of the different categories of fortification masonry is based largely on the work of Scranton and modifications thereof made by Winter and McNicholl.\textsuperscript{267} The masonry of any wall belongs to one of three main groups: unhewn, roughly hewn, or carefully hewn and jointed.\textsuperscript{268} Whereas the first two categories are almost indistinguishable from one another (both often classified as rubble masonry), the third category, which inevitably consists of faces of finely joined masonry usually enclosing a fill of packing material, may be further subdivided into uncoursed and coursed masonry. The former division can include curvilinear blocks (Scranton’s

\textsuperscript{264} Although this is the important assumption employed by McNicholl (1997) in his study of Hellenistic fortifications outside the Greek mainland, I believe it is an equally valid tenet for a study with a specifically regional Arkadian focus.

\textsuperscript{265} Camp (2000:42); Lawrence (1979:235).

\textsuperscript{266} Scranton (1941:20).

\textsuperscript{267} Winter (1971a:80ff); McNicholl (1997:3).

\textsuperscript{268} Winter (1971a:80).
Lesbian’),\textsuperscript{269} polygonal blocks, and trapezoidal or rectangular blocks (Scranton’s ‘Irregular Trapezoidal’ and ‘Irregular Ashlar’),\textsuperscript{270} while the latter incorporates polygonal, trapezoidal, rectangular, or ashlar blocks [Fig. 3.2].\textsuperscript{271}

Examples of coursed masonry in which the blocks are laid in continuous courses, all of which appear to be of the same height, are referred to as isodomic. Conversely, pseudo-isodomic refers to walls in which the blocks are laid in continuous courses which

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Fig_3.2.png}
\caption{The different masonry types (after Nossov 2009:14)}
\end{figure}

\textsuperscript{269} Scranton (1941:17-18).
\textsuperscript{270} Ibid., (1941:17-19).
\textsuperscript{271} Winter (1971a:80).
vary perceptibly in height among themselves.\textsuperscript{272} It should also be noted that in the construction of a wall, blocks may be laid as stretchers, headers may be introduced at intervals, or courses of headers and stretchers may alternate with each other.\textsuperscript{273} Finally, in all the styles of the carefully hewn and jointed blocks, further distinctions can also be made based on treatment of the faces and joints.\textsuperscript{274}

Curvilinear (or Lesbian) masonry, characterized by blocks with all sides curved to greater or less degree, is easily identified. As there are almost no known examples outside the Aeolic and Ionian sphere of influence, however, this category need not concern us here.\textsuperscript{275} Polygonal masonry refers exclusively to blocks which have varying numbers of straight, non-parallel sides, usually more than four, which meet at clear cut angles.\textsuperscript{276} Generally, uncoursed polygonal became widespread on the Greek mainland in the fifth century BCE, and a variant of the style (i.e., coursed polygonal) appeared in the Peloponnese during the second half of the fourth century BCE.\textsuperscript{277} Trapezoidal walls, as defined by Scranton, are comprised of blocks in which two opposite sides are parallel (usually the horizontal sides) and the other two opposite sides are cut on the slant and are not parallel.\textsuperscript{278} Although coursed and uncoursed trapezoidal masonry appear to occur in all parts of the Greek world, there are no clear indications of where exactly the style may

\textsuperscript{272} Scranton (1941:73-74).
\textsuperscript{273} Winter (1971a:80). It must have been recognized that headers interspersed in the face increased the cohesion of the wall and enabled it to better resist shocks (Lawrence 1979:237).
\textsuperscript{274} Winter (1971a:81).
\textsuperscript{275} Scranton (1941:25); Winter (1971a:81).
\textsuperscript{276} Scranton (1941:45).
\textsuperscript{277} Winter (1971a:81). Scranton (1941:54) adds that in some good examples of normal polygonal style, there are occasional places where the semblance of coursing appears, and in coursed polygonal work there are occasional places which seem highly complex; in some examples, a transitional form seems to have resulted.
\textsuperscript{278} Scranton (1941:71).
have originated. On the other hand, it seems certain that this “compromise between polygonal and ashlar,” developed in the years following the Persian Wars and thrived in fortification building for at least a century. The last general category of walls is ashlar and is recognized by blocks that are rectangular and usually uniform in size. Although there are but a few examples of uncoursed ashlar, coursed ashlar, beginning in the late fifth century BCE, flourished throughout the fourth century BCE and became the dominant style of the Hellenistic period.

Finally, in all categories of carefully hewn and jointed masonry briefly described above, based on how the faces and joints of the blocks are treated, further distinctions can be made. Scranton identifies no less than seven different possible treatments of a block-face, as well as three different ways of preparing joints. Briefly, the most common of these include ‘quarry-faced’ (blocks whose faces have received no substantial working beyond that resulting from their removal from the quarry), ‘hammer-faced’ (blocks which have been consciously roughened), ‘broached-face’ (face has been modified by cutting long grooves with the pointed chisel; usually grooves slant downward across the face of the block, generally arranged in two or three tiers), and ‘pointed-face’ (face has been brought to a flat surface but not smooth. Concerning the treatment of joints, there is the ‘drafted joint’ (in which a narrow band is dressed in the surface of the stone along the joint), or the ‘beveled joint’ (in which the edge has been chamfered at an angle

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279 Ibid., (1941:77-78).
282 Scranton (1941:99); Winter (1971a:81).
283 Scranton (1941:21-22); Winter (1971a:91).
approximately 45° to the face). These surface treatments were aesthetic rather than functional refinements: they aimed to give fortifications an appearance of massive and rugged strength.

### 3.3.7 Stylistic Chronology of Masonry and its Limitations

The general underlying assumption concerning the dating of Greek walls is the belief that fortifications and styles of masonry are not likely to be local in their developments, but instead, that some sort of international style in fortifications and masonry must have spread through the Greek world. Furthermore, that the developments of this international style, including the regular and discernible transition from one style to another, are visible in the archaeological record and can be dated relatively. Unfortunately, however, the classification of masonry styles based on the shape of the blocks and the treatment of the surface is not that easily attained. In fact, although there seems to be some stylistic associations, the fact remains that “a precise and reliable [universal] chronology of styles eludes us.” The reasons for this are addressed below. But here, it is worth briefly noting the chronological trends that have been generally established concerning the stylistic development of polygonal, trapezoidal, and ashlar masonry.

Scranton maintains that polygonal walls became quite widespread on the mainland during the fifth century BCE (specifically 480-400 BCE). Furthermore,

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284 Scranton (1941:22-23).
285 Conversely, the inner faces of the block were most often left in a rough state in order to help bind the interior earth and rubble fill.
286 Scranton (1941:10-11).
288 Scranton (1941:55).
although by the end of the fifth century BCE the style had generally declined in popularity, in the Peloponnese, coursed polygonal masonry remained in vogue from the second half of the fourth and beginning of the third century BCE. Similarly, Winter argues that during the fifth and early fourth century BCE, polygonal was chiefly employed in the Peloponnese (or areas under Peloponnesian spheres of influence). Still, aesthetics remained important in city wall construction and appearance and accordingly, architects did not immediately abandon the “pleasing ruggedness and irregularity of the polygonal style.” Although it appears that poleis on the mainland lost much of their enthusiasm for polygonal masonry as soon as they began to build large circuits, a number of Hellenistic examples of polygonal fortifications do exist. Nonetheless, it can be generally stated that from the last third of the fifth century BCE, polygonal steadily lost ground in favour to trapezoidal and ashlar masonry.

Scranton proposes a few chronological generalizations on the periods in which some of the trapezoidal styles were favoured. He maintains that the use of uncoursed trapezoidal work covers a period from the early fifth century to the early third century BCE – that is, the same chronological limits as polygonal masonry. The reason, according to Winter, was that uncoursed trapezoidal retained something of the effect and the strength of polygonal work, but was easier to assemble. As the science of siege-warfare developed on the mainland, the irregular nature of uncoursed trapezoidal became

289 Ibid. Lawrence (1979:235) maintains that Polygonal masonry was also the most characteristic style of the sixth century.
290 Winter (1971a:90).
292 Lawrence (1979:235); Winter (1971b:413).
293 Scranton (1941:98); Winter (1971a:86, 90).
294 Scranton (1941:98).
a liability and it was discovered that the old effect could still be retained in part by using
coursed trapezoidal.\(^{296}\) Uncoursed trapezoidal work, therefore, inevitably gave way in
preference to coursed (or isodomic) trapezoidal during the late fifth century and early
fourth century BCE.\(^{297}\) With the beginning of the Hellenistic period, we see the rise of
pseudo-isodomic trapezoidal masonry; unfortunately, as there are few preserved
trapezoidal walls from this time, it is hard to trace its later developments.\(^{298}\)

Finally, after some experimental construction in uncoursed ashlar, regularly
coursed ashlar masonry appears at the end of the fifth century BCE.\(^{299}\) This style, in both
its isodomic and pseudo-isodomic forms, became increasing popular throughout the
fourth century BCE.\(^{300}\) It appears that trapezoidal masonry, although arguably faster and
cheaper to construct than polygonal, could still not compete with ashlar in this regard and
consequently, ashlar became the dominant style of masonry from the mid-fourth century
BCE to the Hellenistic period.\(^{301}\) Internally, ashlar walls with header-and-stretcher
systems continued to develop during this time, becoming more and more elaborate
throughout the third and second centuries BCE.\(^{302}\) Externally, while polygonal walls were
kept rough (keeping with rugged appearance of style as a whole), from the early fourth
century BCE onward, ashlar walls were often elaborately finished, approximating the
aesthetic effects found in temples and other public buildings.\(^{303}\)

\(^{296}\) Ibid.
\(^{297}\) Ibid.
\(^{298}\) Scranton (1941:98).
\(^{299}\) Ibid., (1941:136).
\(^{300}\) Ibid.; Winter (1971a:88).
\(^{301}\) Winter (1971a:91).
\(^{302}\) Scranton (1941:136); Winter (1971a:81).
\(^{303}\) Winter (1971a:91).
The limitations of attempting to employ such a stylistic chronology in the dating of fortifications are obvious. Primarily is the issue of stylistic overlap. Based on the general developments outlined above, for example, it is immediately clear that polygonal, trapezoidal, or ashlar were all viable options for a circuit constructed in fourth century BCE Arkadia! Such imprecision is ultimately the result of the scope of the earlier studies in which these observations were based. In other words, when looking for universal or even panhellenic patterns, much of the masonry employed will cover periods too long to be of any practical chronological significance. Furthermore, in justifying his stylistic study of city walls, Scranton insists that an international chronology of styles of masonry evolved which will hold for the entire Greek world, except in “cities too poor or too removed from the outer world to be interested in vying with others.” It is here that Scranton misses the point: namely, that the majority of Greek settlements (and their fortifications) falls into this category and should not be excluded from an attempt to establish a universal stylistic chronology.

Rigid categories of different masonry styles do not really acknowledge the possibility that in any given circuit, different styles of masonry may simply indicate different workshops or groups of masons rather than different building periods. This would not be uncommon as a considerable number of contractors must have been employed on the construction of a city wall. Moreover, the classifications of masonry styles are rarely flexible enough to take into account what Winter refers to as “special

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304 Scranton (1941:10-11).
305 For example, the Copenhagen Polis Centre has to date identified no fewer than 800 mainland poleis existing in the Archaic and Classical period (Hansen 1994:9); yet only a few (Athens, Sparta, Thebes, Sikyon, Mantinea, Tegea, etc.) should be considered major players in the history and politics of their time and place.
solutions to special problems.” Thus, sometimes the masonry style is altered in areas dictated by the terrain (e.g., keying courses together to reinforce the facing blocks in the wall against outward pressure exerted by the fill, or where a wall ‘stepped’ down a hillside). Such alterations, defying the standard categorical definition, may represent “technical adjustments in the fitting of blocks rather than different styles of masonry.”

While such imprecision is a constant drawback, as noted by Lawrence, the fallibility of this method is demonstrable on many other points.

At the root of the problem, however, is the basic assumption that the choice of a given masonry style is first and foremost dictated by external influences. In fact, it is clear that styles of masonry were governed not only by external emulation, but by local custom and could vary from place to place within a region in any given period. Such variation is ultimately the result of conscious choices made by architects at the individual site level. Indeed, the selection of a particular style of masonry could be based on any number of reasons: aesthetic ideals, the nature of the terrain, costs, stability, type of stone available, and/or to keep pace with developments in siege warfare at a particular time or place. For these reasons, any rough date established for a circuit based on the stylistic sequence of its masonry is but one chronological consideration. In the end, the problem of dating fortifications can only be satisfactorily resolved when the stylistic evidence is

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307 Ibid.
308 Ibid., (1971a:84).
309 Lawrence (1979:245).
310 As noted by Camp (2000:44), “there are instances where I think we should actually think in terms of regional or local styles of wall-building, which were then exported elsewhere.”
311 McNicholl (1997:3); Lawrence (1979:234-35).
combined with a thorough “consideration of the military concepts underlying the whole of the system in question [as these] factors do vary from period to period.”

3.4 Tactical Concepts: Fortifications and their Constituent Parts

In the initial stages of fortification construction, military engineers and architects had to bear in mind a number of different strategic considerations regarding choice of site, procurement of water, access to natural resources, building materials to be used, and how to best take advantage of the natural defenses afforded by the surrounding topography. But they also had to consider a number of different tactical concepts. Here tactical concepts denote the individual features or constituent parts employed in a fortification system, by which a defender is able to gain some particular advantage over an attacker. Thus the form, function, and placement of the curtains, towers, gates, posterns, and outworks were consciously made decisions based on their role as working parts of the larger defensive system. But because such decisions were largely dictated by the topography of a site, current technology, and historical conditions, there is no standard formula for the collective arrangement of a circuits’ constituent parts. What follows, therefore, is a brief examination of the main characteristics and historical development of these individual tactical features of fortifications.

3.4.1 Curtains and Battlements

While not unknown earlier, arguably the most important and widespread

314 Detailed structural, chronological, and overall tactical considerations of these elements are addressed as they are encountered in the Arkadian examples to follow.
315 Although the trace of a wall is essentially a strategic problem, the shape and constitution of its curtain was a tactical concern.
technical development of the fifth century BCE was the change from rubble to fitted masonry (including mudbrick), whether for the whole curtain or only its stone foundations.\footnote{Winter (1971a:132).} Although this technological advance had aesthetic repercussions, it was essentially a logical and practical improvement developed in response to the ever-increasing desire for higher and thicker walls. As mentioned above, walls which averaged around 2 m or more in thickness required some packing fill between the faces, which rubble facing cannot easily support. The use of fitted masonry, therefore, drastically increased the overall strength and stability of the curtains.\footnote{Ibid.; Lawrence (1979:344).}

Although the curtains of fortifications generally became taller and thicker with time as city walls increased in size and often expanded to include the lower city, it is a fact which is not very useful for determining an accurate chronology.\footnote{Winter (1971a:134). Of course, the overall increase in mass of a curtain over time was also a direct result of the attempt to keep pace with contemporary advances in siege warfare. These advances and the defensive architectural improvements they inspired are addressed in detail below.\footnote{Ibid.}} Nonetheless, as with the style of masonry employed, there are some general approximations that can be made regarding height and thickness. Based on his research of defensive architecture throughout the Greek world, Winter maintains that in the absence of other evidence, walls which are 6 m or more in height are likely not earlier than the late fifth century BCE; whereas examples which stand over 10 m in height should be regarded as Hellenistic.\footnote{Ibid.} Although admittedly less satisfactory than using height,\footnote{If for no other reason than the fact that curtains in a given circuit were rarely uniform in thickness but varied according the topography on which they rested and the ground in which they were meant to command (Lawrence 1979:344).} chronological approximations can also be made regarding thickness. In this regard, it appears that the
thickest walls are those of the mid-fourth century BCE onward, especially as thickness was often increased by the addition of a second outer face of masonry.321

General developments can also be traced in the internal structure of curtains. For example, regarding the nature of the packing material, in fifth century BCE walls this fill was most often comprised of a mixture of earth, clay, and/or unworked masses of stone.322 Moreover, fill composed predominately of rubble became increasingly frequent throughout the fourth century BCE, even when, during the Hellenistic period, headers and stretchers were used regularly to bind the mass of the curtain together.323 Indeed, during this period, employing headers at regular intervals that ran far back into the fill (to form a compartment, or emplekton) became much more common.324 In most cases prior to the fourth century BCE, however, binding of the curtain was achieved by leaving the inner faces of the blocks unworked in the rough state in which they were quarried.325 Although the technical generalities outlined above are of rather limited chronological value individually, taken together they “carry a considerable cumulative weight.”326

The utility of curtains in a given circuit, of course, was not limited to their primary purpose of surrounding and shielding a settlement. Indeed, more than merely passive elements of the larger defensive whole, curtains were, from the beginning, employed actively as effective platforms for launching offensive maneuvers.

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324 Especially in those cases where the outer faces of a curtain were fitted with trapezoidal or ashlar masonry (Ibid., 1971a:135); Tomlinson (1961:139).
Accordingly, a wall-walk or *parodos* located on top could be used not only for observation but as an advantageous height from which to counterattack a besieging force [Fig. 3.3]. While the earliest walls probably only had tight packing of earth and stones at the top of the fill, the *parodos* of a mudbrick or stone wall must have consisted of wooden planks, stone slabs, or a thin layer of chips set in mortar (all of which would have protected the bricks from exposure). The introduction of stone-throwing artillery, moreover, required changes to be made along the top of curtains as crenellations alone could not provide enough protection against increasing large missiles. Thus, in exposed sectors, crenellated battlements were replaced by battlements comprised of a continuous screen wall, usually 2 m or more in height, with windows protected by wooden shutters at regular intervals. Although this type of screen wall was not common before the middle of the fourth century BCE, when this new feature was adopted, it became almost a

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328 Ibid., (1971a:140). The term *epalxis* is applied by Hellenistic writers to this new type of screen wall.
329 Crenellations were still used in the first half of the fourth century BCE, for example, in the walls of Messene.
universal feature – not only because it provided greater security for defending troops, but its roof offered protection from the elements for both the artillery and the mudbrick superstructure of the curtain below.330

3.4.2 Towers

Arguably the greatest and most versatile tactical constituents of a fortification’s circuit were its towers. Although in the Near East the use of towers can be traced back at least to the fourth or third millennium BCE, probably the earliest method of enfilading employed in Greek mainland fortifications was a simple form of indented trace.331 Architects must have soon realized, however, that a solid bastion standing free of the curtain on both flanks would not only double the volume of flanking fire on each stretch of curtain (without losing direct frontal power), but provide an area where defenders could mass to protect the more vulnerable points of the circuit.332 Besides these obvious tactical advantages were other more practical returns, namely economy and refuge. For instance, the change from solid platforms to hollow two-storey towers saved time, labour, and materials;333 and the construction of a tower with a covered chamber could be used to store arms and equipment, provide shelter for sentries, and operate as safe observation posts.334

331 McNicholl (1997:8); Winter (1971a:152); Garlan (1974:245). The use of the indented trace, however, was not limited to the earliest examples, and complex forms of this technique continue into the Hellenistic period. For characteristics and developments of the indented trace and its stylistic limitations as a chronological marker, see Winter (1971b).
332 Lawrence (1979:376); Winter (1971a:152). An open platform protected by a parapet on the roof of a tower would have also increased the fire-power while largely eliminating risk of casualties (Winter 1971a:153).
333 Ibid. Before the invention of rams and artillery, the second storey need not have been very substantial.
The earliest occurrence of such towers seem to be in the late Archaic circuits of Asia Minor, where, “like several other innovations in the field of late Archaic Greek military architecture, [it] was probably a reaction to the collapse of many Ionian cities before the techniques of Near Eastern siege craft employed by the Lydians and Persians.” Although by the first half of the fifth century BCE the two-storied types of tower were standard on the mainland, they were not set at regular intervals throughout a circuit’s entirety. Instead, the earliest examples appear in parts of the circuit where the enfilading advantages of towers were needed most, such as at gates, angles, or where a wall traversed a stretch of level ground or stood on a gentle slope – that is, generally in areas easily accessible to attackers. As a rule, towers continued to be employed sparingly and generally unsystematically until around the time of the Peloponnesian War, when the manifold possibilities of the tower begin to be appreciated and consequently became regular features of most circuits. Furthermore, it cannot be a coincidence that they are employed regularly at this time which also coincided with the appearance of the first effective siege techniques. Undeniably, their development is best understood as a direct response to counter any offensive advantages attackers might have gained with the introduction of the ram and the tentative use of mines. Indeed, “it was the initial groping efforts of the late fifth century BCE, undertaken in the face of the new conditions of the period, that led to the dominant position of the tower in Hellenistic defensive systems.”

As alluded to above, in many respects, the towers of mainland Greek fortifications show a fairly steady and logical development from the Archaic to the Hellenistic period, except, however, in the one place where we would expect it: their ground plans. In this regard, there appears to be no “reasonable and logical pattern of development” regarding tower shape [Fig. 3.4]. The first true towers were rectangular in shape.341

![Diagram of tower shapes](image)

**Fig. 3.4.** Visible fields of artillery fire by tower shape (from Marsden 1969)

Whether they were the cheapest or easiest to build, as maintained by Lawrence and McNicholl,342 or whether they developed to conform to the plan of earlier solid bastions as held by Winter,343 towers of this shape remained the most common.344 Rectangular towers with long projecting flanks were the most effective shape for protecting the adjacent curtains. For keeping an enemy at a distance from the walls, however, a circular or semicircular tower was most effective as the defenders could all open fire at once without the ‘blind spots’ presented by the corners in a rectangular tower.345 Accordingly, such curvilinear towers were more commonly situated at gateways and sharp angles

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341 The advantages of the different shapes of towers and their relationship to advances in artillery are addressed in detail in the subsequent section. What follows here is a brief outline of the various shapes which are encountered in Arkadian circuits.
342 Lawrence (1979:378); McNicholl (1997:8).
344 While failing to mention how he arrived at such a number, Lawrence (1979:378) observes that “rectangular towers constitute at least 90 per cent of the total known at all periods.”
345 Winter (1971a:192). Curvilinear towers were also advantageous because they did not offer a broad flat surface to enemy artillery.
rather than elsewhere in the circuit. Still, as often as not, round and rectangular towers were used together without any special system.\textsuperscript{346}

Another type of tower shape can be broadly classified as polygonal (including pentagonal, hexagonal, etc.). Like curvilinear towers, a main advantage of polygonal towers (with blunt angles) was, that having five or more sides, they offered less surface area to enemy fire. Perhaps the main advantage, however, was that a polygonal plan combined the oblique surfaces of a round tower with the economy and material of the square and rectangular types.\textsuperscript{347} Moreover, although some of the 180º coverage of a semicircular tower was sacrificed (and a polygonal could also probably house fewer weapons), some advantages of the round tower could be recovered by increasing the number of sides on the polygon.\textsuperscript{348} Since the best way of protecting the curtains was provided by rectangular towers with long flanks and the most effective way of keeping an enemy from the walls was by employing curvilinear or polygonal towers, it is not surprising to see the development of a ‘composite’ tower. Essentially comprised of a boldly projecting rectangle terminating in a semicircle or half a polygon, such a tower may have offered the greatest advantage for the least expenditure of money and material, “keeping with the very practical character of Hellenistic military architecture.”\textsuperscript{349}

Before the appearance of examples with ground storey chambers, the internal composition of towers were similar in character to those of the curtains (i.e., comprised

\textsuperscript{346} Winter (1971a:194) suggests that round and rectangular towers may have been placed side by side for purely aesthetic reasons – i.e., “enlivening the whole work by varying the appearance of the towers.”
\textsuperscript{347} Ibid., (1971a:195).
\textsuperscript{348} Ibid.
\textsuperscript{349} Ibid., (1971a:196).
of packing fill of stone rubble and earth).\textsuperscript{350} The walls of these early towers, moreover, were usually only one course thick, and when made of stone, the inner faces of the blocks, like the curtains, were left rough and untreated to help bind the facing to the internal fill.\textsuperscript{351} Below the superstructure (mudbrick or stone), there was usually a leveling course of jointed masonry (both in coursed and uncoursed examples), which often projected above ground level a few centimeters from the face of the wall, forming a low socle [Fig. 3.5].\textsuperscript{352} Furthermore, these foundations were, when possible, taken down and set on bedrock or hardpan.\textsuperscript{353} Structurally speaking, therefore, these towers differed from the early bastions only in having an enclosed chamber at the level of the top of the curtains and in the transfer of the open platform to the roof of this chamber; the walls of this chamber (stone or brick) were constructed in the same manner as the facing of the ground storey.\textsuperscript{354}

The appearance of towers with ground storey chambers brought with it associated structural problems. While towers with a hollow-ground storey were no more difficult to construct than the solid variety,\textsuperscript{355} the omission of the central fill would have weakened the base and thus necessitated thicker foundations. Consequently, to increase their strength and overall stability, it became necessary to found the towers more securely and to increase both their thickness and the overall size of the blocks used.\textsuperscript{356} Thus, by the Hellenistic period, it was not uncommon for the walls of towers to be at least two courses

\textsuperscript{350} McNicholl (1997:9).
\textsuperscript{351} Winter (1971a:172).
\textsuperscript{352} Ibid., (1971a:171).
\textsuperscript{353} Ibid.
\textsuperscript{354} Ibid., (1971a:173).
\textsuperscript{355} Despite the advantages of this type of tower, examples before the time of Epaminondas and the Macedonians are rare (Ibid., 1971a:162, 176).
\textsuperscript{356} Ibid., (1971a:176).
thick, to be unbonded to the adjacent curtain, or to find an increased use of header-and-stretcher systems to bind the whole structure more securely together.\textsuperscript{357} Such modifications were made in order to not only better protect a tower’s structural integrity from an enemy assault, but also to provide sufficient support for the discharging of heavy artillery encamped in the upper storeys.

![3D model of a typical Greek fortification with principal parts labeled](image)

\textbf{Fig. 3.5. 3D model of a typical Greek fortification with principal parts labeled}

### 3.4.3 Gateways

The location of gateways, as with towers, must have been primarily dictated by convenience and defensive considerations. Yet by their very nature, towers were more flexible and could be placed more or less where needed to protect the weaker spots in the circuit. Gates, on the other hand, as openings in the line of a wall and potential weak spots, had their location depend almost entirely on the nature of the terrain and often, on

\textsuperscript{357} Ibid.
the presence of existing roads. Most major roads were generally placed in low-lying parts of the circuit for convenience. Accessibility may not have been a problem for early acropolis circuits, where most of the institutions of trade and commerce would have been located in the lower city, or in those cases where they may not have had a choice, with the main roads having been established before the lower city was fortified.\textsuperscript{358} Still, in sites where the lower city was fortified, it was a general rule that the main entrances into the city should be fairly easy to reach. In this respect, however, military architects were faced with the problematic condition that, “the more convenient the approach, the greater was the danger from enemy attack; the more inaccessible the entrance, the greater the inconvenience to those passing in and out about their lawful occasions.”\textsuperscript{359}

As Winter reminds us, although we know very little of the character of major gates on the mainland before the late Archaic period, it appears that from the beginning, the plan of Greek gateways generally conformed to one of two basic types.\textsuperscript{360} The first type, the ‘frontal gateway’, is characterized by an opening in a continuous stretch of wall guarded by a projecting tower or bastion on one or both sides.\textsuperscript{361} The second category is the example of ‘overlap gates’, wherein there is a lateral opening in the walls lying between two overlapping and more or less parallel arms of a wall which form an entrance.

\textsuperscript{358} Ibid., (1971a:209); Lawrence (1979:304).
\textsuperscript{359} Winter (1971a:206).
\textsuperscript{360} Ibid., (1971a:208). Although the majority of Archaic, Classical, and Hellenistic gateways conform to one of the following types, as with masonry, there are some entrances that defy classification. These rare variants are addressed when encountered in the specifically Arkadian examples to follow.
\textsuperscript{361} Ibid. There is much inconsistency in the terminology for gates. For example, Winter (1971a:208ff) refers to this first category as “simple-opening gates” or “Type I;” McNicholl (1997:6ff), after Vitruvius (1.5.21), refers to them as “axial gateways;” and Lawrence (1979:306ff) calls them “frontal gateways.” Although all refer basically to the same form, because the term ‘axial’ is obscure and ‘simple-opening’ is misleading (as it includes the complex and monumental examples of the Hellenistic period), I employ Lawrence’s straightforward classification of ‘frontal gateways’.
Perhaps here a third type of gate should be introduced, the ‘gatecourt’ type. These types of entrances have an external opening (lateral or frontal), often protected by towers or bastions on one or both sides, leading to a forecourt and ultimately an inner entrance.

Frontal gateways seem to have been preferred where the entrance to a settlement lay either on a slope or in the depression between two hills, although this type could also be employed on flat ground if the terrain offered some advantage [Fig. 3.6]. When these gates were provided with a tower, which was most often the case, they were inevitably placed on the left commanding the attacker’s unshielded right side. If, however, the gateway was on a steep slope or its approach was protected by a jog in the curtain, then towers could be omitted altogether. In any event, as the line of the trace was usually governed by natural features, these gates were more often than not placed where their flanks were protected by projecting salients or angles.

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362 Winter (1971a:208); Lawrence (1979:332). Although Winter (1971a:208ff) refers to examples in this category as “Type 2,” McNicholl (1997:6ff) as “tangential,” and Lawrence (1979:332ff) as “lateral openings,” they also continuously use the adjective ‘overlap’ to describe them. Indeed, since this usage is so unambiguous as well as common in the literature, I have employed it here.

363 This kind of entrance is usually (and unsatisfactorily) grouped together into one of the first two categories. For example, based on the standard categories above, the Arkadian Gate at Messene is characterized by Lawrence (1979:318) as a frontal gateway, whereas the Phlius Gate at Stymphalos is described by the same author (1979:334) as an overlap type, although both possess a circular forecourt as their main architectural component.

364 This type of gate is extremely rare in Arkadia, so much so in fact, that Stymphalos, Mantinea, and Kleitor possess the only known examples. The courtyard gate, therefore, will be explored when encountered.


367 Ibid.

368 Lawrence (1979:315); Winter (1971a:212, 223).
Variants of the frontal gate can be found in all periods and all places in the Greek world. Early in the fifth century BCE, however, when regularity of planning came to be preferred, “the ideal scheme demanded the symmetrical placing of two identical towers that projected outward.”  

Furthermore, before the fourth century BCE, the actual openings of these gates were very narrow, usually no deeper than the thickness of the main curtain, thus leaving room for only a single gate. Finally, the great civic gates which would become characteristic of many Hellenistic circuits were most often of this gatecourt type and could reach monumental proportions [Fig. 3.7].

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369 Lawrence (1979:316). On the other hand, although McNicholl (1997:7), argues that there are no examples of frontal gates with two flanking towers in the “Greek world earlier than the later fourth century,” early fourth century BCE examples of this type are found at Paos and Stymphalos.


In the periods preceding the Classical period, the overlap gate appears to have been favoured and regarded as the strongest type of entrance [Fig. 3.8].\textsuperscript{372} The overlap plan had many advantages. Before the introduction of artillery, for example, any direct attempt to storm the gate would have been impossible as it did not present its opening to the field; while attempts to scale the walls in the vicinity of a gate would have been met by defensive fire from the overlapping walls.\textsuperscript{373} To complement the intrinsic strengths of this type of gate, as we have seen many times already, architects would use the natural advantages afforded by the surrounding topography. Thus, overlap gates were generally favoured on level ground and in places where the wall ran along the crest of a hill or traversed a slope.\textsuperscript{374} That is, in places that compelled an enemy to advance for some

\textsuperscript{372} Ibid., (1979:332). Indeed, until the serious use of artillery when the main dangers to a circuit “lay in direct attempts at forcing the gate and assaults on the flaking stretches of wall by means of scaling-ladders, the overlap gate had certain obvious advantages over the simple-opening type” (Ibid., 1979:208-09, n.6).

\textsuperscript{373} Ibid.

\textsuperscript{374} Winter (1971a:215).
distance at the foot of the adjoining curtain before reaching the gateway, exposing where possible both of their flanks to defensive fire.\textsuperscript{375} Herein lies the principle advantage of the overlapping gate, one that was further enhanced by the placement of a tower on the attacker’s right.

![Fig. 3.8. 3D model showing reconstructed overlap type gate from ancient Stymphalos](image)

Although overlap gates show considerable diversity in their plans and the Greeks used this type “habitually from a very early period,”\textsuperscript{376} some chronological developments

\textsuperscript{375} Ibid., (1971a:209).

\textsuperscript{376} Lawrence (1979:332).
can be traced. Generally, in the course of time, the length of the overlaps increased and the opening between them became wider. This passage, moreover, was often lengthened as the inner wall continued to be prolonged far within. While the opening was often commanded from all directions by a round tower constructed on the end of the outer curtain, it was also common to have another tower projecting from the inner wall just outside the entrance to the passage. As will be demonstrated with the towers, with the rapid development in siege craft in the fifth and fourth centuries BCE, the overlap gate often became more complex, usually by making the corridor L-shaped (or less frequently) Z-shaped in plan. Interestingly, despite the advantages presented by the overlap gate as demonstrated by its popularity from the Bronze Age through the Classical period, of the two, it was the frontal gate that became almost standard in the Hellenistic period. One of the main reasons often cited is that the frontal or gatecourt is better suited (structurally and aesthetically) to main civic entranceways. Whatever the reason, from around the time of Alexander onward, overlap gates are more frequently confined to secondary entrances.

3.4.4 Posterns and Outworks

Posterns are found in all periods of Greek military architecture, serving two primary functions. In times of peace, posterns provided citizens from the settlement quick

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377 It should be noted that because the choice of gate was based on a number of factors through time, not least of all terrain, both frontal and overlap gates “are chronologically valueless” (McNicholl 1997:6). Nonetheless, some general patterns of development and the impetus behind such, can be observed.
378 Lawrence (1979:333); Winter (1971a:209).
379 Lawrence (1979:333).
382 Lawrence (1979:334); Winter (1971a:209).
access to the *chora*[^384]. In times of war, the postern functioned as a means for defenders to sally out from the walls and attack the besiegers[^385]. The latter was its most important function and consequently, posterns were commonly placed next to towers (which could provide flanking cover), or later, placed in the flanks of the towers themselves[^386]. Although there may exist some examples as early as the fifth century BCE, as a general rule, the use of posterns is less common in the earlier circuits where defenders still relied on the strength of their walls[^387]. By the fourth century BCE, however, posterns became increasingly common as “city-walls lost much of their efficacy owing to the vast improvements in siege-equipment.”[^388] In theory, the construction of posterns, especially in areas more accessible to the enemy, would allow a team to speedily sally out and disable an enemy machine before retiring to the safety of the circuit. It is not surprising, therefore, that from the fourth century BCE onward, the advances in offensive siege craft are paralleled so closely by the increasing frequency of posterns in a city’s fortifications[^389]. As the Hellenistic period advanced, posterns continued to become more numerous and to become more complex in plan, but their location was generally dictated by the same considerations as before[^390]. The Hellenistic period also witnessed outworks becoming more common (although rarely in Arkadia)[^391].

[^385]: Hence the synonym for posterns, ‘sally-ports’.
[^386]: Winter (1971a:235); McNicholl (1997:7). Posterns in the flanks of towers had another advantage: defending troops could muster in the tower chamber until the exact moment arrived for them to strike (Winter 1971a:240).
[^388]: Lawrence (1979:338).
[^390]: Ibid. (1971a:244).
[^391]: Ibid.
Today it is often difficult to assess this important complement to Greek fortifications, for in many cases outworks have left no trace on the surface. But based on the ancient literary sources and the scanty archaeological remains, some conclusions may be drawn. The virtual absence of these outworks in the Archaic period is easy to understand, as most circuits were confined to an acropolis or clung to easily defensible terrain, making ditches unnecessary. What is less easy to understand, however, is why, from the later Archaic and Classical period, when more large Greek cities were fortified, or re-fortified, outworks were not more common.\textsuperscript{392} Winter explains that because the primary aim of outworks like ditches and proteichismata (out walls) was to meet the combined threat of siege towers, rams, mines, and artillery, and not to hinder the approach of enemy infantry, “there was never any compelling reason for employing outer defenses before the Macedonian period.”\textsuperscript{393}

3.5 Fortifications and the Rise of Poliorketics

3.5.1 The Decline of the Hoplite

When Greek warfare emerged from the shadowy depths of prehistory into the light of history, it was dominated by the heavily armoured, citizen soldier, the hoplite. For the next three centuries (ca. 675 – 350 BCE), military disputes between Greeks would be decided by “a head-to-head collision of summertime soldiers on an open plain in a brutal display of courage and physical prowess.”\textsuperscript{394} That this ‘Western Way of War’ endured for so long is a testament to the intrinsic conservative and competitive nature of

\textsuperscript{392} Ibid. (1971a:272).
\textsuperscript{393} Ibid., (1971a:273).
\textsuperscript{394} Fields (2006:48).
the ancient Greeks themselves. Not only was the system maintained for the sake of tradition, shared values, and social prejudice, but equally important, hoplite warfare was, by its very nature, ritualistic – this idea is perhaps best demonstrated by the fact that the overall aim of a hoplite army was to defeat rather than to annihilate.

For most of the period dominated by hoplite armies, fortifications did not have a place in the main ethic of Greek warfare – the clash of opposing phalanxes. Although relatively heavily armed (traditionally including large shield, or hoplon, and a bronze helmet, cuirass, and greaves), the average Greek hoplite was still too vulnerable to risk a direct assault on an enemy wall. Consequently, in the sixth and first half of the fifth century BCE, military architects employed a ‘passive’ rather than ‘aggressive’ defensive strategy, seeking when necessary, protection behind their walls and the steep slopes on which they were built. Things changed, however, with the beginning of the Peloponnesian War and the second half of the fifth century BCE witnessed more or less continuous military activity, including important developments in siege warfare. While there were no real innovations in the field of poliorketics at this time, as the Greeks basically just copied the techniques employed by the Persians (rams, mounds, and mines), their increasing use certainly made military architects sit up and take notice.

395 Lendon (2005:45).
396 Hanson (1989:35). Ritualistic elements of hoplite warfare can also be observed in the selection of an agreed battle site that gave no obvious advantage to one side or the other; in the mutual consent granted to gather the dead and injured after the fight; in the erection of a trophy by the victor on the field; and in restricting battles to the summer seasons so as not to interrupt the soldier’s farming obligations back home (Santosuosso 1997:12–23).
398 Although by ca. 400 BCE, the average Greek city must have been much better protected than it had been a century before, no radical improvements were made in siege techniques until the first half of the fourth century (Winter 1971a:308).
As mentioned above, the increasing deployment of siege craft during the latter half of the fifth century BCE likely “stemmed in large measure from the increasing incidence of city-circuits built on open and easily accessible terrain.”\textsuperscript{399} Since the earliest settlements had an outer city that was often partly or entirely unwalled, and siege engines could not easily be brought against the steep terrain characteristic of their fortified acropoleis, before the Peloponnesian War, siege warfare, although attested, had been of limited importance.\textsuperscript{400} Yet as soon as the walls were extended to include the level quarters of the outer city, it became possible to effectively employ siege engines, and the relative merits of \textit{poliorketics} began to receive more careful study.\textsuperscript{401} It is clear that the increasing risk of enemy machines being brought against one’s walls had a direct and lasting effect on the fortifications of the time and those that followed. In order to fully understand and appreciate the evolution of the science of \textit{poliorketics}, however, we must be constantly aware of the political and economic limitations imposed upon the construction of defense systems in different periods.\textsuperscript{402}

### 3.5.2 The Ascendancy of Artillery in the Fourth Century BCE

In his pioneering work \textit{Greek and Roman Artillery} (1969), Marsden makes a very convincing case for the accuracy of Didodorus’ statement: “from the land, the Syracusans employed arrow-shooting catapults and destroyed numbers of the enemy; this weapon created great consternation because it was first invented at that time [399 BCE].”\textsuperscript{403}

Specifically, this example of the earliest artillery was a catapult referred to as a

\begin{itemize}
  \item \textsuperscript{399} Ibid., (1971a:57).
  \item \textsuperscript{400} Ibid.
  \item \textsuperscript{401} Ibid.
  \item \textsuperscript{402} Ibid., (1971a:xvi-xvii).
  \item \textsuperscript{403} Diod. 14.50.4. For Marsden’s argument see pp. 48-55.
\end{itemize}


*gastraphetes* (‘belly-bow’ or ‘belly-shooter’) [Fig. 3.9].

As non-torsion machines, these weapons relied instead on the principles of strength and resilience. As such, the early prototypes are best understood as functioning like a large composite bow, where the bow was fixed to a wooden case in which moved a wooden slider that was grooved to receive a missile (resembling a smaller arrow).

While estimates vary, Marsden maintains that the maximum effective range of these machines is between 180 and 230 m.

![Fig. 3.9. Schematic drawing of tension catapult (from Marsden 1969: Diag. 5)](image)

Although only having a slightly greater range than a regular composite bow, its design facilitated better accuracy and thus, its “introduction must have produced a significant

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404 Essentially an overly-large composite crossbow, it acquired this unthreatening name because the shooter had to place his stomach on the rear of the wooden stock and use the weight of his body to force back the bowstring to its maximum extension (Marsden 1969:5).

405 For detailed analysis of the *gastraphetes*, its constituent parts, and its description by Heron of Alexandria, see Marsden (1969:5-13).

impact.” Indeed, these earliest catapults, when set up at a distance from the walls of a city, would have clearly given the tactical advantage to the attackers.

Because of the limitations imposed by the inherent properties of the composite bow, it did not take long for military engineers to fully exploit and exhaust the potential of these early machines. In order to fully realize their objective of projecting larger missiles over greater distances, these engineers had to employ a new and more resilient material. By isolating the sinew (which they believed contributed the major force in the composite bow), and combining it with the principle of torsion, by the second-half of the fourth century BCE they had discovered what they were looking for. Marsden believes that this important innovation probably took place in Macedonia under Philip II sometime between 353 and 341 BCE. The basic form of the torsion catapults resembled their earlier non-torsion counterparts in most respects, except that in place of the bow were two pivoting arms each anchored to a box-spring containing the sinew cord. Furthermore, with some experimentation and modification of the frame, it was also discovered early on that these torsion catapults could also be used to throw large stones.

From the last quarter of the fourth century BCE until the early years of the second century CE, variations of both the torsion arrow-firers and stone-throwers remained the

\[^{407}\text{Ibid.}\]
\[^{408}\text{Ibid., (1969:17, 56-57). Two inscriptions recording military inventories discovered on the Athenian Acropolis mention parts of torsion catapults. One (IG^2 ii.1467, B) dates to the Lykourgan period (338-326 BCE) based on its letter forms, while the other (IG^2 ii.1627, B) is attributed to the year 330/29 BCE. Thus, it is certain that torsion catapults existed by 326 BCE at the latest.}\]
\[^{409}\text{While admitting the evidence is tenuous, Marsden (1969:60-61) combines the fact that there exists no mention of torsion catapults before Philip’s reign, with the ancient sources that mention the Macedonains employing these machines at the sieges of Perinthus and Byzantium in 340 BCE.}\]
\[^{410}\text{Ibid., (1969:61-62).}\]
\[^{411}\text{Marsden’s Mark IVA and Mark IVB respectively.}\]
standard artillery throughout the Mediterranean [Fig. 3.10].

Not only could these machines clear the curtains of the defenders, but they could also take a heavy toll on any defenders who dared venture out attempting to disable them. It is not surprising therefore, that the revolutionary development of this mechanical propulsive device would come to exemplify the acme of military technology in the Greek world and would eventually come to threaten fortifications by the sheer amount of force it could produce.

3.5.3 Greek Fortifications Respond

Despite the promising capabilities of these machines, the earliest examples did not possess the strength to hurl stones large enough to threaten well-built walls, and moreover, they were heavy, relatively fragile, and difficult to transport. These

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machines, therefore, were inefficient for use as field artillery and instead were largely limited to anti-personnel fire.\footnote{McNicholl (1997:4).} But as Ober explains, “none of these factors limited their usefulness as defensive weapons and the fact that a catapult’s range was increased by placing it in an elevated position naturally led to the employment of catapults in towers.”\footnote{Ober (1987:571).} In the end, although the first non-torsion catapults were originally developed as offensive weapons to be employed in the siege of a city, the true defensive potential of catapults was soon realized and we see Greek fortifications responding accordingly.

Allowing for some time for this technological innovation to disseminate from Sicily, the housing of catapults on towers appeared on the Greek mainland by the second quarter of the fourth century BCE.\footnote{Marsden (1969:126) maintains that the first changes can be seen in the towers of Messene, constructed beginning in 369 BCE. Ober (1978:571), on the other hand, points to an inscription from the Athenian Acropolis (\textit{IG II\textsuperscript{F}, 1422}) dated to 371/70 BCE, which mentions the possession of stores of catapult bolts.} While towers of some sort remained prominent defensive features of almost all Greek fortification circuits from the late Archaic period onward, with the development of improved siege techniques, as well as the introduction of offensive and defensive artillery, they soon changed their function and appearance.

It was not until the time of the Peloponnesian War that the diverse potential of the tower began to be appreciated. That this change coincided with the appearance of the first effective siege techniques – the introduction of the ram and the tentative use of mines – can not be coincidental.\footnote{Winter (1971a:155).} Indeed, the ram and use of mines are among the most successful devices of the fifth and early fourth century BCE and “perhaps more than anything else, were responsible for the increased importance of the towers”\footnote{Ibid.} as

\begin{enumerate}
\item \footnote{McNicholl (1997:4).}
\item \footnote{Ober (1987:571).}
\item \footnote{Marsden (1969:126) maintains that the first changes can be seen in the towers of Messene, constructed beginning in 369 BCE. Ober (1978:571), on the other hand, points to an inscription from the Athenian Acropolis (\textit{IG II\textsuperscript{F}, 1422}) dated to 371/70 BCE, which mentions the possession of stores of catapult bolts.}
\item \footnote{Winter (1971a:155).}
\item \footnote{Ibid.}
\end{enumerate}
independent strong points in the defensive line.\textsuperscript{419} The more widespread use of artillery from the mid-fourth century BCE onward, however, necessitated a more aggressive (or active) defensive strategy than in earlier times; no longer was it feasible to simply withdraw and trust in the impenetrability of the walls.\textsuperscript{420} The earliest artillery was housed in what Ober refers to as first-generation catapult towers, which based on historical probability were developed over a span of about fifty years (ca. 375-325 BCE).\textsuperscript{421} It is in the second-generation towers of the Hellenistic period where we see artillery beginning “to find its true place as a defensive rather than offensive weapon.”\textsuperscript{422} As the most obvious place to mount artillery was in the towers, in Hellenistic systems this became their most important function and a number of architectural developments can be traced.

Generally, from the late fourth century BCE onward, we see military architects employing larger, higher towers, with thicker walls and in greater numbers.\textsuperscript{423} Not only in an attempt to counteract the offensive threat that accompanied the introduction of the much improved torsion catapult, but to provide the strength and stability required in the towers themselves to support the defensive use of the same machines (i.e., the recoil). The most obvious change in the towers, however, occurred when architects began to “consider which tower shapes provide the most advantageous fields of fire for catapults in any given set of circumstances.”\textsuperscript{424} Although rectangular and semicircular towers were, of course, employed on the mainland during the Archaic and Classical periods, it is likely

\textsuperscript{419} I.e., Enfilading from towers greatly reduced the danger resulting from the breaching of a stretch of curtain by keeping the enemy at a distance from the walls.
\textsuperscript{420} Winter (1971a:243).
\textsuperscript{421} Ober (1987:572).
\textsuperscript{422} Winter (1971a:156).
\textsuperscript{423} Marsden (1969:126); Ober (1987:572).
\textsuperscript{424} Marsden (1969:140).
that the appearance of hexagonal towers was a direct result of the fourth century BCE innovations in siege craft. In other words, it was no secret that the trajectory of a missile will remain constant if the same caliber machine is fired from the same height. It was the shape of the tower, however, that determined the field of fire.

As mentioned above, one of the first changes brought about by the introduction of artillery was the conversion of the platform on the roof of older towers into an enclosed chamber with arrow-slits covered by a pitched roof from which artillery could be housed and deployed. This crucial first step having been taken, architects were able to explore the advantages afforded by different tower shapes. Although Marsden examines the various technical details involved in determining a tower’s field of fire, for the present purposes here, a concise outline will suffice (see Fig. 3.4). Briefly, the fields of fire of artillery fired from a rectangular tower with three embrasures (one on the front and one on each flank) are fairly substantial, covering an area of no less than 150º. What is most immediately apparent, is the presence of two blind spots (15º each), resulting from the corners inherent in the tower’s rectangular shape. This, however, is not an insurmountable difficulty, as the range from the adjacent towers would have covered these gaps, and vice versa. The problem of blind spots in a field of fire is resolved in semicircular and circular towers. In these curvilinear examples, a complete 180º is achieved, and what is more, there are actually three narrow strips of area which are

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426 It is unlikely that these first generation artillery towers where ever designed to house stone-throwers, unless they were extremely small (Ibid., 1969:139).
427 For a technical and detailed account of the relationship between artillery and tower shape, see Marsden (1969:126-154).
covered by more than one machine. Finally, turning our attention to hexagonal towers, we see an even greater coverage in the field of fire. Like the curvilinear examples, hexagonal towers possess a complete 180° range with no blind spots, but have the added advantage of increased area coverage by multiple machines. In this design, we see architects fully exploiting the advantages afforded by the defensive installation of artillery. In effect, by replacing the blind spot corners with straight sides, they have combined the cost and labour efficiency of constructing a rectangular tower with the superior fields of fire of a curvilinear tower.

“The greatest ‘discovery’ of the second half of the fourth century was the realization that artillery could serve the defenders as well as the attackers, and do a great deal of damage with a minimum of danger.” Indeed, it is certain that the improvements made to towers were designed to make the greatest possible use of artillery, and ultimately to restore the balance between offence and defense that had been upset with its invention. To further restore this balance (or hopefully, to tip it in favour of the defenders), fortifications began to employ a more active, rather than passive defensive approach characteristic of the fifth and first half of the fourth century BCE. Accordingly, besides the towers, improvements were also made in the construction of curtains, gates, and posterns of many fortifications of the Hellenistic period.

To be able to better withstand the payload of stone-throwers, curtains of late fourth century BCE circuits were generally higher and thicker than before, the fill was often more solid, and the header-and-stretcher and compartmented styles of building were

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429 Because they do not present a flat surface, curvilinear towers have the extra advantage of superior resistance to enemy artillery.
increasingly common.\footnote{Ibid., (1971a:323).} Furthermore, the crenellated battlements atop earlier curtains were replaced by the solid screenwall of Hellenistic times. Stone continued to slowly supercede brick as the preferred material, but otherwise very few changes were made in the actual building materials and constructions.\footnote{Ibid., (1971a:325); Garlan (1974:199).} The growing threat of new siege engines also led to a more systematic use of flanking devices. In addition to building taller and more massive towers, for example, architects began to exploit more fully the possibilities of the indented trace, which when combined with the heavy concentration of artillery in neighbouring towers, added greatly to the security of gateways (which often were already so strong as to be in little danger of attack).\footnote{Winter (1971a:329); Garlan (1974:245).} Another example of the tendency towards an active type of defense can be seen in the gates which were now designed with a view to entrapping a large body of enemy troops.\footnote{This idea differed from the fifth century concept of relying simply on impregnability (Winter 1971a:310).} With the exception of the changes made to towers, however, arguably the greatest advances in the move towards an active defense from the late fourth century BCE onward can be seen in increasing frequency of posterns.

It is fair to say that no fortified Greek city, however large or small, would have had enough citizen soldiers to defend an entire circuit.\footnote{McNicholl (1997:6).} Consequently, it was important where possible to be able to harass an enemy position before they got too close to the walls. The most effective way to achieve this was to have a number of posterns, especially in the areas of the circuit most vulnerable to a frontal assault. In fact, the increasing use of posterns is one of the earliest signs of the emergence of an active rather
than a passive concept of defensive strategy.\textsuperscript{437} Although this strategy, which compelled defenders to obstruct the approach of enemy machines by sallying forth and destroying them has its beginnings in the later fifth century BCE, it was increasingly adopted throughout the fourth century BCE and would come to form the cornerstone of defensive planning during the Hellenistic period.\textsuperscript{438} While the walls themselves remained the main barrier confronting the attacker, the increasing incidence of posterns from the middle of the fourth century BCE onward demonstrates an active defensive strategy aimed at keeping enemy machines at a distance.

The change from passive to active defensive strategy is reflected primarily in the purpose of destroying an enemy’s siege engine before they reached the walls. It is not that defenders no longer trusted the impregnability of their walls, but that in time the walls became the last line of defense; the first being outworks, the second being the use of artillery mounted on the curtain and in towers; the third being the use of sallies in force; and the fourth and last barrier was the wall itself. The effective and specific use of towers as artillery emplacements (especially curvilinear and hexagonal), suggests that by the third century BCE, artillery had found its true place as a defensive rather than offensive weapon. Still, the incredible advances in siege craft and siege warfare developed and employed on the mainland up to the time of the Roman conquest ensured that the balance between offense and defense remained more or less even, with neither side possessing a decisive advantage – it would remain this way until the invention of gunpowder.\textsuperscript{439}

\textsuperscript{437} Ibid., (1997:7); Winter (1971a:325).
\textsuperscript{438} Winter (1971a:305).
\textsuperscript{439} Ibid., (1971a:331).
Chapter 4: The Fortified Poleis of Eastern Arkadia

This chapter surveys the fortified poleis located in eastern Arkadia on an individual basis, including the sites of ancient Alea, Nestane, Mantineia, and Orchomenos. After establishing that these settlements were indeed poleis, and reviewing all previous scholarship on the sites, the fortification circuit of each polis is explored through the local history, the geographical and topographical setting, the architectural components of the fortifications themselves, and finally, the strategy, tactics, and overall defensive planning inherent in their construction. Based an understanding of all of these factors, including historical probability, a chronology of construction for each site in question is then provided.

4.1 Ancient Alea

Ancient Alea was a settlement with a polis identity and is qualified for inclusion in this study by its satisfaction of four of the five requirements for such, established by Nielsen and the Copenhagen Polis Centre.\textsuperscript{440} For example, two proxenia grants, the internal and external use of the city-ethnic, a civic mint, as well as a theorodokos, are all demonstrable for Alea in the Classical period.\textsuperscript{441} As the site has never been excavated and is virtually absent in the ancient sources, unfortunately, besides the evidence cited above, next to nothing is known about the history of the ancient city. Such historical invisibility,

\textsuperscript{440} See Nielsen (2002:40-42).
\textsuperscript{441} One grant of proxenia (IvO 30) was to an Athenian and is the oldest known public enactment of Alea, (ca. 450 – 350 BCE). The other is a fifth century BCE grant (IG I\textsuperscript{F} 80) by Athens of proxenia to a man from Alea. The city-ethnic \textit{Αλειός} (IvO 30) and \textit{Αλεός} (IG I\textsuperscript{F} 80) are attested on both of the proxenia inscriptions. Alea appears to have produced its own coinage by the last quarter of the fifth century BCE (Head 1963:446). SEG 23 189.25 (ca. 330 BCE) records an Argive theorodokos in Alea. The fifth form of evidence (absent in this case) from which polis status may be inferred is an Olympic victor. See Nielsen 2002, Appendix IX.
however, has not stopped a steady stream of travelers and scholars from visiting the site and often commenting on the substantial remains of the fortifications.

The fortified site of Alea is located in eastern Arkadia, approximately 3 km east of the modern village that bears its name.\footnote{Formerly the village of Bougiati. Although originally part of Arkadia, Pausanias (8.23.1) mentions that Alea, like Stymphalos, belonged to the Argives in his day. Today the site and nearby village continue to belong to the Argolid prefecture.} The first surviving account of a visit to the site is by Pausanias, who, in his standard treatment of small settlements, provides only passing references to the most important sanctuaries in its territory.\footnote{Paus. 8.23.1.} In the early 19th century, both Gell and Dodwell discovered, or more accurately, thought they had discovered, the remains of the city.\footnote{Gell (1817:168) and Dodwell (1819:2.432) wrongly identified Alea as a site on the southern side of the ridge which bounds the valley of Stymphalos on the southeast, 11 km north of the real site of Alea.} In fact, the site was not actually rediscovered until the late 1820s by Captain Peytier in the course of his duties with the Expédition de Morée.\footnote{Boblaye (1836:147).} While the decades following this discovery witnessed short superficial observations of the site compiled by Leake, Curtius, Rangabé, and Bursian,\footnote{Leake (1846:383); Curtius (1851:1.208-09); Rangabé (1857:119-22); Bursian (1862:2.198). With the exception of Rangabé, all are based largely on Pausanias’ and Boblaye’s accounts.} it was not until the end of the century that significant descriptions of the fortifications were published. One of the few Arkadian examples in his work, the city walls of Alea do receive brief mention in de Rochas d’Aiglun’s \textit{Principes de la fortification antique}, published in 1881.\footnote{See de Rochas d’Aiglun (1881:58-59). It should be noted that most of his description of the circuit (and the plan) is taken from Rangabé (1857:119-22), and in some cases whole passages are lifted word for word.} By the end of the century, however, Frazer’s firsthand account of Alea and its walls had surpassed all previous descriptions in terms of accuracy and topographical detail.\footnote{Frazer (1898:4.275-78).} The last, and arguably the greatest scholarly contribution to the
study of Alea’s fortifications, however, was made by Meyer in his *Peloponnesische Wanderungen*, published in 1939. In this work an entire chapter is devoted to Alea, the majority of which is given to the fortifications and includes for the first time precise measurements, an accurate site plan, as well as discussions regarding the masonry style and chronology.

4.1.1 Geography and Topography

The site of ancient Alea is ideally situated on the southeast side of a narrow spur which extends from Mt. Skiathis southward into the plain below [Fig. 4.1].

![Fig. 4.1. Topographical map of Alea and surrounding territory](image)

Here it commands the greater part of an S-shaped plain to the south as well as access to a narrow valley that continues northeast from the plain towards the Stymphalos valley.

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449 Meyer (1939a:19-29).
450 I would like to thank the 4th Ephorate of Prehistoric and Classical Antiquities for granting me a study permit to examine the remains of ancient Alea. Unless otherwise cited, all photographs and measurements are based on personal observation from my visits to the site in the fall of 2009 and winter of 2011.
With the exception of this northeast passage, the main southern plain is essentially enclosed on all sides by mountains. In this regard, as noted by Jost, “les conditions géographiques sont au total assez proches de celles de Phénéos et de Stymphale, mais à une échelle plus réduite.” The mountains which surround the main valley not only defined the territory of Alea (determined to be ca. 110 km²), but also separated it from those of neighbouring poleis [Fig. 4.2]. To the north Mt. Skiathis and Oligyrtos divided Alea from the territory of Stymphalos; eastward, Mt. Pharmakas marked the boundary with Phlious and the Argolid; in the south, Mt. Lyrkeio and Artemisio separated Alea from the *chora* of Mantinea; while in the west, the Trachy Mountains formed a continuous barrier between Alea and Orchomenos.

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452 All territorial sizes are based on the map in Jost (1985: Pl.1).
The hill of Alea rises ca. 140 m from the surrounding plain and is linked to Mt. Skiathis by a narrow saddle on the north. While the hill tapers southward relatively gradually from its highest point, the east and west sides of the hill fall away more steeply. As alluded to above, the site stood at the northern entrance to the main valley and thus controlled the approach to the main southern plain. Although Frazer observed that “a high and rugged pass, barely practicable for horses, leads over the mountains from Bougiati… to Orchomenus,” and Jost maintains that in the south there is a route to Mantinea by way of a high pass between Mt. Lyrkeio and Artemisio;\footnote{Frazer (1898:4.276); Jost (1985:107).} in fact, the main (and only practical) entrance to the valley is from the northeast and the importance of this approach and its protection is reflected in the city’s fortifications.\footnote{It is in this direction alone that traces of ancient roads have been reported. Pikoulas (1999a:300) discovered traces of a road from Orchomenos to modern Skotini, and was informed about another leading from Alea to Phlious, either of which would ultimately necessitate an approach via the narrow valley that continues northeast from the plain and the city.}

### 4.1.2 The Fortifications

Although today, just as in Frazer’s time, the site is completely overgrown, covered primarily by holm oak and maquis, the fortifications themselves are free of vegetation and are extremely well-preserved.\footnote{I first visited the site on 22 November 2009. Cf. with Frazer’s (1898:4.276) description on his visit on 14 October 1895.} The extant remains are comprised of three main elements, which together form a rough triangle – a west wall, a northeast wall, and at the highest point, a separately fortified citadel [Fig. 4.3].\footnote{These elements are in relation to observer standing at the foot of hill and facing north. Because the fortifications included a lower city, the word ‘acropolis’ here denotes all of intramural area on the hill and ‘citadel’ refers only to the fortified enclosure on its peak. The combined total of these elements is 1110 m, enclosing an area of 14.3 ha.}
Fig. 4.3. Plan of Alea (from Meyer 1939a: pl. II)
The west wall descends from the acropolis almost due south until reaching the plain, while the shorter wall on the northeast side of the hill falls away more steeply from the acropolis, descending to the plain in a southeasterly direction. The relatively flat citadel on the top of the hill is the area formed by the convergence of these two walls on the north, as well as perpendicular cross-walls on the south – producing an irregular quadrangle shape. As the fortifications incorporate both a lower city as well as a substantial amount of high ground, by the definition set out in the previous chapter, this circuit is an ‘uneven type’.457

Fig. 4.4. Northeast wall curtain between Tower 62 and Tower 60 detail (facing SW)

457 Lawrence (1979:133) does not acknowledge the existence of a lower city, instead maintaining the acropolis of Alea “must have been solely intended for a garrison.”
The fortifications of Alea are comprised of limestone curtains, on which undoubtedly once rested mudbrick and/or timber battlements and tower chambers. Although these perishable materials no longer survive, that this was the case is suggested by the fact that the stone curtains and lower tower chambers appear so well and relatively uniformly preserved to a height of over 4 m. The walls were predominantly constructed in fully developed uncoursed polygonal style masonry [Fig. 4.4], although there are two exceptions: the large Acropolis bastion and the adjoining curtain on the west are largely comprised of isodomic trapezoidal blocks [Fig. 4.5].

Furthermore, in keeping with the rugged appearance of the style as a whole, the majority of the polygonal blocks in the circuit appear to be quarry-faced. The trapezoidal blocks

458 Owing to the state of preservation, I was unable to determine if the towers had ground storey chambers. Meyer (1939a:26) maintains that they did.
459 Both the polygonal style of masonry and the sheer volume of stone required for a circuit of this size suggest that the blocks were quarried and fashioned on site.
on the acropolis, on the other hand, having been brought to a flat but not smooth surface, appear to have received ‘pointed-face’ treatment. In both types of masonry, moreover, although the blocks have been carefully hewn and assembled, no surface treatment has been given to the joints. Internally, a fortunate gap in the exterior of the upper west curtain reveals an internal fill of rubble, and presumably at one time, earth as well.\footnote{Because of the nature of the remains and a lack of excavation, it cannot be determined at this time whether the internal structure of the wall was comprised of compartments. There is also no evidence of stretchers.}

Finally, observations of the inner and outer faces of the polygonal walls demonstrate that the former are frequently constructed with smaller blocks than the latter [Fig. 4.6].\footnote{Because the size of blocks vary so much in the Alean circuit, determining a block’s average dimension would be futile. Here, it is enough to note that the average block face is almost always longer than it is high. Interesting, Frazer (1898:4.277) observed that “one block here is 9 feet long by 4 feet high.”}

Often the inner faces approach a style that is closer to rubble than polygonal, which perhaps explains their comparably poor preservation.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig4_6.png}
\caption{Interior of upper west wall curtain (facing W)}
\end{figure}
The west wall of the circuit departs the southwest corner of the acropolis and follows a relatively straight southward course for ca. 485 m. This stretch of wall is not actually straight, but contains several multiple bends which are indiscernible from the ground. Although Meyer attributes these bends to “Ungenauigkeit beim Bauen,” they are instead better understood as responses to the topography of the hill itself. For example, architects had no problem constructing a perfectly straight wall on the northeast side, where it navigated a slope set perpendicularly to the steep contours of the hill. On the west side, however, such precision was perhaps unattainable as the upper half of the circuit followed a ridge and the lower half traversed the hill’s contours at an oblique angle. In any case, this section of the circuit contained fifteen rectangular towers fairly evenly spaced at intervals between 28 and 30 m. The thickness of the curtains between the towers is also basically uniform, averaging around 2.90 m. In the dimensions of the towers too, we see further regularity which speaks against Meyer’s criticism of poor workmanship. These towers are typically ca. 5.10 m wide and project an average of 2.50 m from the walls.

The northeast wall is both shorter and steeper than the western wall, descending in a straight line from southeast corner of the acropolis ca. 296 m to the plain below [Fig. 4.7]. This stretch of wall is furnished with 10 towers – again, all rectangular – regularly spaced at intervals comparable to the west wall. Similarly, the curtain thickness also averages 2.90 m. The dimensions of the towers on this side, however, are not as uniform.

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462 Meyer (1939a:23).
463 Ibid.
464 The exceptions are Towers 28 and 30 which are 39 m apart, and Towers 30 and 32 which are separated by only 18 m (Ibid. 1939a:24).
465 Ibid. Excluding the inexplicably small Tower 40 (4.70 m wide and projecting 2.0 m).
Although Meyer notes the majority are 5 m wide and project 2 m from the curtain,\textsuperscript{466} there are several exceptions – most notably Tower 60, which is some 9 m wide.\textsuperscript{467} While Frazer attributes this “deviation in architectural uniformity [to] the steep and broken slope,”\textsuperscript{468} in fact, it is better explained in tactical terms. A wider (and presumably taller) tower located in this location would be advantageously positioned to see over the east-west running ridge of the hill to the north, and into the hollow at the base of the saddle.\textsuperscript{469}

Interestingly for a circuit of this size, there is only one postern [Fig. 4.8]. Located at the

\textsuperscript{466} Ibid.
\textsuperscript{467} All tower numbers taken from the plan in Meyer (1939a:pl. 2).
\textsuperscript{468} Frazer (1898:4.277).
\textsuperscript{469} As the fortifications were designed to meet threats aimed primarily from the west, south, and east, this saddle – located north of the circuit – was especially vulnerable. Tactical considerations are dealt with in greater detail in the subsequent section.
northern terminus of the northeast wall, it is flanked by the large southeast acropolis
tower. When Rangabé visited the site in the mid-19th century, the lintel above the door
was still intact, comprised of “de deux pierres penchées, et se servant mutuellement
d'appui” [Fig. 4.9].

Although in a ruinous state today, a small 1.25 m wide opening can still be observed.

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470 Rangabé (1857:121).

471 Meyer (1939a:24) found the opening to be 1.20 m wide. Lawrence (1979:257), presumably based on
Rangabé’s sketch, dates this opening to the end of the fourth century BCE.
Immediately north of the postern is Tower 17, which is not only advantageously positioned to protect this small opening, but marks the point where the northeast wall meets the citadel. The citadel, as mentioned, occupies the relatively flat area on the top of the hill and its irregular quadrangle shape is defined both by the convergence of the west and northeast walls on the north, as well as by a set of three cross-walls on the south. Both literally and figuratively, the crowning feature of the citadel is the bastion. Measuring an impressive 23.30 m in length and 8 m in width, the bastion occupied the highest and northernmost point of the citadel. With two projecting ends, the bastion is more Π-shaped than rectangular. While the western end of the bastion projects 1.80 m to the north, presenting a face 5.10 m wide, the eastern end only projects 1.20 m and presents a wider face at 6.50 m. The width of the northern face of the bastion between these projected ends is 11.70 m, that is, almost the exact same as the combined width of the two ends (11.60 m). As mentioned above, the polygonal style of masonry preferred for the rest of the circuit was abandoned in the construction of the bastion in favour of trapezoidal blocks laid in regular isodomic courses.

The northeast wall of the citadel is ca. 140 m in length, 3.25 m thick, and contains four towers spaced at fairly regular intervals. While Towers 19 and 23 are comparable in size to those on the slopes, it is the dimensions of Towers 17 and 21 which immediately stand out. For example, Tower 17, marking the easternmost point of the citadel, is ca. 8.50 m wide and stands some 6 m from adjoining curtain, while Tower 21, located in the

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472 Ibid., (1939a:22).
473 Rangabé (1857:122) mistakes this Π-shaped structure for two separate towers.
474 Meyer (1939a:22).
middle of the trace, presents a face 9 m wide and projects 5.60 m from the wall.\textsuperscript{475} Furthermore, the citadel’s western wall is 130 m long, ca. 2.80 m thick, and also contains four towers – all but one of which are poorly preserved. Tower 9, on the other hand, which marks the southwest corner of the citadel survives fairly well and measures ca. 6.60 m wide and projects 4.50 m.\textsuperscript{476}

The southern limit of the citadel is defined by a series of three walls which connect its western and northeastern walls. From Tower 9 in the southwest corner, the wall proceeds almost due east, incorporating Tower 11, before meeting Tower 13, where it takes a southeast direction, ending at Tower 15. From there the wall takes a 90\textdegree\ turn and heads northeast where it terminates and forms the southern part of a small gateway. The northern limit of this gate is formed by a third wall issuing from behind and running perpendicular to Tower 17 [Fig. 4.10].

\begin{figure}[h]
  \centering
  \includegraphics[width=\textwidth]{Fig_4.10}
  \caption{Citadel gate (facing NE)}
\end{figure}

\textsuperscript{475} Ibid., (1939a:23).
\textsuperscript{476} Ibid., (1939a:22).
This gateway, 3 m wide with a 7 m long passage, is the only extant gate in the whole circuit, and interestingly, it does not wholly conform to the established types. Although it more closely resembles a frontal gateway than an overlap type, the opening itself is neither flanked by towers nor set perpendicular to the curtain. Instead, we see an oblique opening formed by small returns in the adjoining curtains.

Although there are no visible remains of the lower city walls in the plain below, some thoughts may be conjectured. Over a century ago, both Frazer and Rangabé argued that a third wall likely existed at the foot of the hill, completing the triangle by connecting the western and northeastern walls.477 Meyer is undoubtedly correct in his assertion that this idea “ist falsch,”478 even if the logic on which its stands is questionable. For example, he maintains that the slope of the hill is too steep to accommodate houses, which must have instead been located in the plain below. Adjusting to a steep terrain, however, has never been a problem for Greek architects – neither now nor in antiquity.479 In any case, that the fortifications of Alea extended into the plain below and enclosed a lower city can be inferred based on the available evidence and probability. The remains of the fortifications on the acropolis discussed above are so well-preserved because of their location – on a rocky hillside appropriate only for the grazing of sheep and goats. If there was a similar wall on the base of the hill on terrain equally impracticable to agriculture, then it is likely that they too would have survived to some degree. If, on the other hand, the fortifications extended into the plain, then their disappearance is more

477 Frazer (1898:4.276); Rangabé (1857:121).
478 Meyer (1939a:26).
479 It is interesting to note that in response to the steep terrain, many of the blocks comprising the northeast wall were laid not horizontally, but obliquely. In this way, gravity directed and redistributed their collective weight into the hillside itself, thus increasing the overall cohesion of the structure. See Fig. 4.7.
easily understood: not only could their disappearance be explained as a consequence of intensive agriculture in the area, but also as an accessible source of stone blocks for reuse. Finally, although the full and exact course of the lower city circuit is impossible to trace today, perhaps the partitioning of different tracts of land can provide some clues. Satellite images and photos of the lower city reveal a curious feature [Fig 4.11]. An oblique field boundary is clearly discernable extending in a curved line from the point where the northeast wall meets the modern road on the plain below. Not only is such a boundary apparently at odds with the surrounding rectilinear land partitions, but its alignment with the northeast fortification wall is certainly suggestive and may represent the lower city wall’s eastern course.

![Fig. 4.11. View of lower city from northeast wall curtain near Tower 64 (facing SE)](image)

480 The lack of any remains did not prevent Meyer (1939a:28) from estimating the length of the lower city circuit to be 1220 m.
4.1.3 Strategy, Tactics, and Defensive Planning

Incorporating ample natural resources, an advantageous geographical position, and a suitable topography which could be easily enhanced by man-made fortification works, the polis of Alea is ideally located. Like the valleys of Stymphalos and Pheneos, the valley of Alea is extremely well-watered, and contains no fewer than 14 seasonal streams as well as a number of mountain springs.\textsuperscript{481} Arable land is also plentiful in the flat valley floor, while the maquis and holly-oak covered slopes of the surrounding hills provide suitable fodder for grazing livestock. Furthermore, as mentioned, the surrounding hills – and the hill of Alea itself – likely provided the limestone employed in the fortifications. Besides access to natural resources such as these, larger defensive strategies also had to take topography and geography into account.

Topographically, the hill of Alea is very practically fashioned. Located at the edge of a plain on the tip of a spur which extended from the flank of a mountain and linked to its main mass by a narrow saddle, it was defendable without being too high or inaccessible, and was close enough to protect the arable land in its territory. The saddle separating it from the main mass of the mountain to the north was especially crucial, as it took away any advantage an attacker may have held from holding the high ground above the city. The hill’s geographical position in relation to the valley was also advantageous from a defensive point of view. Located at the north of the valley, it not only commanded the plain to the south, but also controlled access into the valley itself. Specifically, the acropolis and the hill immediately across the plain to the southeast combined to create a

\textsuperscript{481} Meyer (1939a:26-27) notes, “Geschiebe führenden Bäche zusammenlaufen und die Talsohle jeden Winter in einen See verwandeln.”
small bottleneck at the terminus of the narrow valley to the northeast which was the main point of access to the territory of Alea.\textsuperscript{482} Finally, as noted by Frazer, “the view from the hill of Alea embraces the valleys on both sides, with high barren mountains rising from them and bounding the horizon in all directions. The outlines of the mountains on the east, south, and north are bold and fine.”\textsuperscript{483} But more than being simply picturesque, the position of the acropolis and its natural topography facilitated the optimal lines of site for defense of the surrounding area [Fig. 4.12]. Thus, from the citadel almost the whole of the territory is visible, including the two minor entrances into the valley mentioned by Jost and Frazer.\textsuperscript{484}

Fig. 4.12. Panoramic view of Alean territory from citadel (-facing S)

To make Alea defensible, corresponding tactical considerations were combined with the general defensive strategy founded on the natural topographical and geographical advantages of the site.\textsuperscript{485} In this regard, the most observable feature is the effort made to strengthen the northeastern defenses. For example, with the exception of Tower 9, it is on this side of the trace that the largest artillery towers were constructed. It could be argued that such precaution on this side of the hill was necessary to defend the lower city fortifications, which extended from the hill into this area, are taken into account. Frazer (1898:4.278).

\textsuperscript{482} This gap between the two hills is less than 800 m, and would be considerably smaller when the lower city fortifications, which extended from the hill into this area, are taken into account.

\textsuperscript{483} Frazer (1898:4.278).

\textsuperscript{484} The only part of the territory not visible from Alea is a small area in the extreme southwest part of the valley, immediately north of the modern village of Frousiouna.

\textsuperscript{485} With the absence of extant remains in the lower city, we are here confined to tactical analyses of the acropolis fortifications.
approach to the acropolis’ (and the citadel’s) only gateway. But certainly the slope of the hill and the formidable and appropriately placed Tower 17 could have effectively protected the small postern. Furthermore, the fact that the northeastern wall is, on average, 0.50 m thicker than its western counterpart, implies that protecting the gate is only part of the answer. The other, and main part of the answer, is that this wall was the first line of defense for both Alea and its territory.

Any aggressors intent upon laying siege to the city or invading its countryside would be required to approach the territory by way of the narrow valley which opens northeast of the city. Upon exiting this narrow passage and entering the plain, they would immediately find the northeastern fortifications set at a 90° angle in front of them. The construction of this wall perpendicular to the main approach into the valley ensured that an enemy would be presented with the maximum artillery fire possible. Moreover, if an enemy attempted to stay out of range of the acropolis artillery by sticking close to the hill opposite the city to the southeast, they would have brought themselves into both the range of the artillery fired from the towers in the lower city fortifications, and the bottleneck effect mentioned above.

Finally, as the western approach was too steep for siege engines to be brought against them effectively – and in any case would have required getting past the northeastern defenses – the only other area vulnerable to attack was the north. If an enemy wanted to avoid the imposing fortifications of the northeast wall, they may have attempted to launch an attack from the relatively flat saddle north of the acropolis citadel. Not surprisingly, the fortifications also reflect the attempt to gain the tactical defensive advantage in this direction. We have already covered the possibility of the larger Tower
60 being advantageously positioned to control easterly access to the saddle from the small hollow at its base. It is likely that the relatively large Towers 17 and 21 of the citadel performed a similar function. Because of their position, however, these towers would be of little use if an enemy succeeded in reaching the saddle itself. The protection of this vulnerable area was instead entrusted to the citadel’s bastion. Like the northeastern wall, the bastion was oriented perpendicular - presenting its long side to the north – in order to cover the greatest area and offer the maximum amount of artillery fire. As the bastion occupied the highest point of the citadel, the potential range of its artillery would have given the advantage to the defenders and would guarantee that any attack from the north would be a costly one for the enemy.

4.1.4 Chronology

The first to offer any kind of chronology for the walls of Alea is Lattermann, who, in the minutes of a meeting published after a visit to the site, vaguely proposes that they date to the time of the Achaian League. The only other observation he makes, besides the favourable preservation, is that “die Türme nicht im Verband mit den Kurtinen stehen.” Lattermann does not, however, provide any reason for a proposed third century BCE date. Meyer, on the other hand, while subscribing to Lattermann’s chronology, at least offers grounds, however unpersuasive, for a Hellenistic date. For instance, he maintains that the bulkiness of the construction, the size of the citadel bastion, the size of the blocks, historical considerations, and the presence of ground storey tower chambers, all suggest the walls were built when the city was affiliated with

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486 Lattermann (1914:106). This is only true of the northeast and western sections of the circuit. The towers on the acropolis, as noted by Meyer (1939a:26), are integrated with the adjacent curtains.
487 Lattermann (1914:106).
the Achaian League.\textsuperscript{488} The size of blocks employed in the construction of a settlement’s fortification, however, is of little chronological value, and assuming the walls of Alea must be Hellenistic because they are made of large blocks is flawed reasoning.\textsuperscript{489} Although the rest of Meyer’s arguments for a Hellenistic date are not as easily dismissed, there are elements of Alea’s fortifications which do suggest an earlier – perhaps late Classical period – date.

One of the most obvious architectural features (or lack thereof) that speaks to an earlier date is the paucity of posterns in the Alean circuit. Since generally, from the later fourth century BCE onward, posterns (in the curtains and flanks of towers) became increasingly common\textsuperscript{490} – especially in large circuits incorporating a lower city – the deficiency of such features at Alea may suggest an earlier date. On the other hand, perhaps it was thought that siege engines could not be brought against the naturally defensible terrain of the acropolis, thus precluding the need for posterns. Although the presence of only a single extant postern, and one that functioned more to provide access to the citadel rather than for offensive sorties, may suggest an overall passive approach, the number of towers employed in the circuit points to the opposite conclusion. Indeed, the existence of 37 acropolis towers demonstrates an active defensive policy, one in which the use of mounted (small caliber) artillery played a significant role in the plan to keep the enemy at a distance from the walls. Ultimately, such a policy is paralleled at Stymphalos, Orchomenos, and Mantineia, and speaks to a date in the second quarter of

\textsuperscript{488} Meyer (1939a:25-26).

\textsuperscript{489} For example, one has to look no further than to the walls of Nestane, located in a neighboring valley just south of Alea. Although the walls of Nestane were constructed with blocks comparable in size to those of Alea, they have long been thought to date to the first half of the fourth century BCE. On dating the walls of Nestane see Lattermann (1913:413-15) and Hodkinson and Hodkinson (1981:247).

\textsuperscript{490} Winter (1971a:239, 305).
the fourth century BCE. Conversely, Winter mentions in passing that the “close-set towers of Alea obviously belong to the Hellenistic age.”491 In the same article, however, he also states that the “numerous close-set towers” are “characteristic of the period in which the new Mantineia was founded and fortified [i.e., 370 BCE].”492 At any rate, at ca. 28-30 m, the towers of Alea are not that closely spaced.493 The style of masonry is, unfortunately, no more conclusive, as Scranton and Winter have both commented on the difficulties in establishing the chronological limits of polygonal masonry.494 Nonetheless, Winter believes that polygonal was chiefly employed in the Peloponnese in the early fourth century BCE, and Scranton maintains that by the late fourth century BCE the style had all but run its course.495

A closer examination of Meyer’s “historischen Gründen,”496 does not support the notion that Alea’s fortifications date to the time of the city’s affiliation with the Achaian League, but instead that their origin may predate this membership by nearly a century. For example, if Pausanias is to be believed, then Alea was one of the settlements persuaded to participate in the synoikism of Megalopolis 368 BCE.497 The city, however, does not seem to have been abandoned, or at least not completely, as an inscription dated to ca. 330 BCE records and an Argive theorodokos in Alea.498 Still, as it is commonly held that Pausanias’ description of the participating cities is derived from an inscription

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493 This is the same tower spacing of the first generation towers at Stymphalos, which have been dated to ca. 375-50 BCE (Gourley and Williams 2005:219, 241).
494 Scranton (1941:50); Winter (1971a:83ff).
495 Winter (1971a:90); Scranton (1941:50, 69). By way of comparison, on the polygonal circuit of Oiniadai, Winter (1971a:236) maintains that, “it seems to me unlikely that so vast a circuit would have been built in the polygonal style during the Hellenistic period.”
496 Meyer (1939a:26).
497 Alea is mentioned first in Pausanias’ list of Arkadian cities which joined Megalopolis (8.27.3).
498 See above n. 441.
he had personally read, the idea cannot be dismissed completely.499 Whether all or only some of the population left to join Megalopolis, it follows that a construction project on the scale of Alea’s fortifications would demand the full economic resources and labour force of a unified settlement, and thus should pre-date 368 BCE.500

Another historical consideration to be taken into account regards the origin of the settlement itself. Although without excavation there is no way of determining when the settlement was founded, the earliest reliable evidence suggests activity on the site during the late fifth century BCE.501 This evidence, combined with the fact that Alea was likely a member of the Peloponnesian League, and certainly, later a member of the Arkadian League, demonstrates an active political history going back over a century before their affiliation with the Achaian League. It would be extremely unlikely, not to mention unusual, for the city to have remained unfortified during this extended period. But perhaps the best historical evidence for an early fourth century BCE date for the fortifications, comes by way of comparanda from the surrounding sites.

The construction of the walls of Alea, at a time that also witnessed comparable fortifications erected at nearby Stymphalos, Nestane, Mantineia, and Orchomenos, adds considerable weight to the argument for an early fourth century BCE date. Comparisons with the fortifications at Stymphalos, located a mere ca. 15 km to the north, are especially revealing. Although the construction of the walls differ, the layout, size, use of towers,

500 Lawrence (1979:396) takes the opposite stance, maintaining that the walls were built after the Arkadian League collapsed and people returned to their cities. He goes on to say, somewhat inexplicably, that the walls were built and paid for in the late fourth century by Alea’s “overlord” and that the citadel “was, no doubt, reserved for his mercenaries.”
501 Alea appears to have produced its own coinage by the last quarter of the fifth century BCE (Head 1963:446).
and utilization of the natural terrain by both circuits are extremely similar. Moreover, as mentioned, the size of the towers and their spacing (ca. 28-30 m) are especially comparable. Fortunately, sections of the Stymphalian fortifications have been excavated, and evidence suggests that besides the modification of a few components, the bulk of the circuit was constructed with the refounding of the city in the first third of the fourth century BCE. Furthermore, because of Stymphalos’ strategic location and the date of its foundation, Gourley and Williams, “suspect that the refounding of Stymphalos is to be associated with new cities at Mantineia, Megalopolis and Messene built to control Sparta.” It is not inconceivable that Alea performed a similar function, more specifically, as an Arkadian League bulwark against Orchomenos and Phlius – both of which were allied with Sparta against the League and both of which bordered the territory of Alea.

Finally, another feature held in common by both Stymphalos and Alea is the existence of a large bastion as the focal point of the fortifications. Again, although constructed differently, it is unlikely that their position in relation to the rest of the circuit and their almost identical dimensions are coincidental. Excavation has demonstrated that the bastion at Stymphalos was adapted into its present state early in the third century BCE, perhaps under Macedonian influence. Furthermore, excavation at Stymphalos has also determined that, like the bastion, during the late fourth and early third centuries BCE

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502 So much so, in fact, that if you rotate the plan of Alea counterclockwise 90°, it becomes almost indistinguishable from the plan of Stymphalos’ circuit.


504 Ibid., (2005:219, n. 10). Especially since passing through Stymphalian territory could be avoided completely by a route through Alea’s valley. In other words, in passing through Alea, Spartans on the move could eventually reach Achaia, the Corinthia, or the Argolid.

505 Alea’s bastion measures 23.30 m x 8 m and Stymphalos’ measures 21 m x 11 m (Gourley and Williams 2005:246).

several other components of the fortifications were modified in response to advances in siege warfare.\textsuperscript{507} A similar scenario at Alea involving the adaptation of existing features in response to advances in siege warfare, may explain those tactical features not easily reconcilable with an early fourth century BCE date.\textsuperscript{508}

In the end, future excavation may demonstrate that, as at Stymphalos, the bastion of Alea and the larger citadel towers were enlarged from existing structures in the later fourth or early third century BCE.\textsuperscript{509} On the basis of historical probability, therefore, although far from conclusive, I would suggest that the fortifications of Alea were largely constructed in more or less their present form during the second quarter of the fourth century BCE, while the enlargement of the bastion and several of the citadel towers were responses to advances in poliorketics of the late fourth and early third centuries BCE.

4.2 Ancient Nestane

Politically, the settlement of ancient Nestane appears to have been a dependency of Mantinea that reached polis status after 385 BCE.\textsuperscript{510} While Nielsen admits that the substantiation for this conclusion rest solely in the existence of the city-ethnic, there is another important piece of evidence from which a polis status for Nestane may be

\textsuperscript{507} Ibid.
\textsuperscript{508} For example, the ground-storey tower chambers, which Winter (1971a:162) notes were relatively uncommon before the time Epaminondas and the Macedonians. Lawrence (1979:396) believes the bastion is contemporary with the rest of the circuit (late fourth century BCE).
\textsuperscript{509} Chronologically, the isodomic trapezoidal masonry of Alea’s bastion also fits with the aesthetic appeal of the Hellenistic period which arose from the “natural structural qualities of the coursed styles” (Winter 1971a:88). The larger towers too are consistent with Ober’s Second Generation of artillery towers, intended to house larger caliber torsion machines, which appear in the late fourth and early third centuries (Ober 1987:570). Winter (1989:195) expresses his doubt of Lawrence’s (1979:396) assertion that the bastion is contemporary with the rest of the circuit.
inferred. Briefly, an inscription, believed to date between ca. 385 and 370 BCE, records an agreement by which the citizens of Helisson are willingly made citizens of Mantineia, with the polis of Helisson accordingly becoming a dependent of Mantineia. This decree, Nielsen maintains, supports “that the same was true of Nestane and the other komai situated in the Mantinike.”

Very little is known of the history of Nestane and what is established relates primarily to its relationship with Mantineia. When the people of Mantineia were expelled from their city by the Spartans in 385 BCE, the ancient sources suggest that they returned to their ancestral villages. Thus, it may be reasonable to assume that not only was there an earlier settlement on the later site of Nestane, but that the site was occupied between 385 and ca. 370 BC before Mantineia was refounded. Pottery from the Classical and Hellenistic periods, noted by Howell during his survey of Arkadia, imply that the site continued to be inhabited after the second Mantineian synoikism. As well, the construction of the fortification circuit, as will be explored below, suggests occupation of the site at least in the second half of the fourth century BCE. Without systematic excavation, however, the history of Nestane after 370 BCE remains largely unknown.

511 Nielsen (1996b:66). The city ethnic is mentioned by both Ephorus (FGH 70 F 234) and Theopompus (FGH 115 F 175).
513 Ibid., (1996b:70). Xenophon (Hell. 5.2.7) mentions four komai in the territory of Mantineia, while Strabo (8.3.2) mentions five. It is almost certain that Nestane was one of these settlements.
514 That is they returned to the four or five komai (mentioned above) which comprised the settlements that participated in the original synoikism of the late Archaic/early Classical period. See Demand (1990:67-69).
515 Hodkinson and Hodkinson (1981:264) caution that because of the paucity of archaeological evidence, it cannot be assumed that settlement at Nestane ceased with the original synoikism of Mantineia, and there may have been activity at the site prior to 385 BCE. Howell (1970:87), for example, reported Neolithic and Bronze Age pottery on the site.
Nonetheless, like Alea, the relatively minor *polis* of Nestane has witnessed a steady stream of visitors and scholarship on the site over the centuries. As it often does, the list begins with Pausanias, who, approaching from the Argolid through the Artemesion Mountains, enters Arkadia in the plain above modern Nestani.517 Unfortunately for posterity, while noting some extramural sanctuaries, Pausanias mentions next to nothing about the site itself. Reports on the site during the first half of the 19th century also offered little, and writers like Leake, Bobylae, and Ross added little to our understanding of the ancient settlement.518 During the second half of the century, however, accounts by scholars such as Curtius and Clark, and later, Loring, Fougères, and Frazer, not only included more topographical and archaeological detail than previous, but secured the identity of the site, as mentioned by Pausanias, with the remains at modern Nestani.519 Finally, in the 20th century, the two most thorough and informative studies on Nestane were produced almost 70 years apart – first by Lattermann, and then by Hodkinson and Hodkinson.520 While the former was the first real and most detailed investigation of Nestane with an archaeological focus, including the first photographs and detailed plan, the latter is more historically oriented, where Nestane is treated largely in its relationship to Mantinea.

517 Paus. 8.7.4.
518 Leake (1830:3.54; 1846:378-79); Boblaye (1836:141); Ross (1841:132). All are largely summaries of Pausanias’ description. Incidentally, although Boblaye does include a brief descriptions of the fortifications, he mistakenly identifies them as belonging to Melangea and not Nestane. And Leake cannot identify the remains at Tzipiana – he believes the remains of Nestane are elsewhere,
519 Formerly the village of Tzipiana. Curtius (1851:1.245); Clark (1858:128-30); Loring (1895:81); Fougères (1898:92); Frazer (1898:4.199-200).
520 Lattermann (1913); Hodkinson and Hodkinson (1981).
4.2.1 Geography and Topography

The fortified acropolis of ancient Nestane is located about 7.5 km due east of Mantinea, on the small rocky Paniyiristra hill, immediately northeast of the modern eponymous village [Fig. 4.13].\footnote{I would like to thank the 39th Ephorate of Prehistoric and Classical Antiquities for granting me a study permit to examine the remains of ancient Nestane. Unless otherwise cited, all photographs and measurements are based on personal observation from my visit to the site in the fall of 2009.\footnote{The passes from the Argolid into the plain of Nestane and relevant road network are addressed below.\footnote{Although for convenience I refer to the ‘territory’ of Nestane, as a dependant \textit{polis} of Mantinea, it is important to keep in mind that the territory of Nestane is ultimately inseparable from the territory of Mantinea.}} This hill commands a small plain to the north as well as two narrow passes to the southwest: the more northern one leading to the Mantineian plain, the other, separated by Mt. Stravomyti, to the plain of Tegea.\footnote{The passes from the Argolid into the plain of Nestane and relevant road network are addressed below.\footnote{Although for convenience I refer to the ‘territory’ of Nestane, as a dependant \textit{polis} of Mantinea, it is important to keep in mind that the territory of Nestane is ultimately inseparable from the territory of Mantinea.}} The small \textit{chora} of Nestane is surrounded by mountains on all sides.\footnote{The passes from the Argolid into the plain of Nestane and relevant road network are addressed below.\footnote{Although for convenience I refer to the ‘territory’ of Nestane, as a dependant \textit{polis} of Mantinea, it is important to keep in mind that the territory of Nestane is ultimately inseparable from the territory of Mantinea.}} It is separated from the territory of Alea to the north by Mt. Artemesio; from the territory proper of Mantinea to the west by Mt. Barberi; while the Artemision Mountain range forms the boundary with the Argolid on the east and Tegea to the south.
The small hill of Paniyiristra, on which the extant remains of the site lie, measures approximately 160 m from east to west by 100 m north-south. It rises ca. 90 m from the surrounding plain, and is relatively flat at its highest point. On the south, west, and north sides, the hill falls precipitously away to the plain below, while its east side is connected to the Artemision mountains by a narrow saddle some 350 m long. Although in the early part of the 20th century the hill was treeless and comparatively barren, at present a variety of weeds, tall grasses, Aleppo pines, and wild-flowers have somewhat obscured the ancient remains. North of the settlement lies the plain of Nestane which, oriented north-south, is ca. 7 km long by 2.5 km wide. Pausanias tells us that this plain was known in antiquity as the *Argon Pedion* or ‘Fallow Plain’ since “the rain-water coming down into it from the mountains prevents the plain from being tilled; nothing indeed could prevent it from being a lake, were it not that the water disappears into a chasm in the earth.” This *katavothros* has been located in the southeast corner of the plain, just north of Paniyiristra hill. Besides the seasonal streams, the settlement also procured water from a number of mountain springs – most famously, the spring of Phillip mentioned by Pausanias, “unanimously identified as the water-source evident today at the east end of the ridge.”

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524 As Pausanias makes it clear that the settlement was not in the plain, and the hill itself being too small to accommodate even a modest population, this saddle linking the acropolis to the bulk of the mountains to the east is the best candidate for the location of the ancient settlement (Hodkinson and Hodkinson 1981:247).

525 Cf. with photos of the barren site published by Lattermann (1913) which present a stark contrast to the present conditions. A low modern cement/block safety wall which runs around the south and west part of the hill is another relatively recent addition.

526 Paus. 8.7.1.

527 Although documented by Curtius (1851:1.245), Fougères (1898:92), and most recently, by Hodkinson and Hodkinson (1981: 243, Fig.2), I was unable to locate it personally on my visit on 19 April 2010.

4.2.2 The Fortifications

As in antiquity, the hill of Nestane is today accessed from the east, which, owing to the precipitous terrain of the rest of the hill, was the only place that fortifications were required. Here the man-made defenses were comprised of north and south curtains, each stretch housing a semicircular tower, with their terminal ends coming together in the form of an overlap gate [Fig. 4.14]. Furthermore, the southern wall – that is, the eastern side of the gate – terminated in a small rectangular tower. As mentioned, the site today is more obstructed by vegetation than it was a century ago, and consequently, the towers recorded by Lattermann are no longer visible.529 Otherwise, the gateway, the interior of

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529 Lattermann (1913:412).
the south curtain, and the exterior of the north curtain, are all relatively well-preserved. The exterior of the south curtain, however, shows signs of weakness and a large crack in its northeast corner is apparent. To prevent further damage, a large wooden scaffold has been erected on the south side of the south curtain.

While several scholars have attempted to reconcile the limited visible remains on the hill with one or another of the temples mentioned by Pausanias, what is important here is that “whether the hill was a sanctuary area or not would not have precluded its use as a village citadel, for which it was eminently suited.” The fortifications of Nestane, therefore, are of the acropolis-type. Moreover, their location on the east side of the hill, facing the narrow ridge, provides further support that this is where the main settlement was likely located. The fortifications of Nestane appear to be comprised of stone foundations which supported a now lost mudbrick superstructure. This is suggested by the fact that the extant curtains are relatively consistent in their surviving elevation, with no evidence of fallen or displaced blocks in their vicinity.

The style of masonry in the different sections of the surviving curtains, as noted by the Hodkinsons, is “certainly not uniform [and] the distinctions between them are not quite so clear-cut.” Still, some observations can be made and opinions conjectured. Beginning with the eastern (or external) side of the north wall of the circuit, the stretch of curtain preceding the gate is perhaps best described as polygonal [Fig. 4.15]. While there is clear evidence of courses, they are not isodomic. Instead, the alternating of large blocks

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530 The exterior of the north curtain serves now as a retaining wall for the earth behind and is all but invisible; they are likely preserved as well, but are buried beneath this earth.
532 Today, much of this ridge is obscured by houses, a school, and a cemetery.
with courses of longer, thinner blocks, is more comparable to pseudo-isodomic, though not representative of the fully developed style. Employing Scranton’s terminology, the faces of the blocks appear to have received hammer or quarry-face treatment. The corresponding internal curtain of the north wall, is different still [Fig. 4.16].

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534 This distinction is not always clear since, as Scranton (1941:21) reminds us, limestone breaks from the quarry with a rough surface. Nonetheless, all the surfaces of the blocks in the circuit appear to have received either hammer or quarry-faced treatment.
Like Alea, the internal blocks of the curtain are considerably less substantial than the exterior, and appear to be isodomic trapezoidal with similarly treated hammer or quarry-faced surfaces. The southern end of the north wall, forming the eastern side of the ‘gatecourt’, is separated from the rest of the wall by a small (0.33 m) perpendicular jog in the curtain [Fig. 4.17]. This part of the curtain is primarily comprised of roughly coursed polygonal blocks, although the occasional trapezoidal and rectangular block do appear [Fig. 4.18]. The internal (i.e., west) face of the south wall of the circuit, by contrast, is constructed of very large, predominately polygonal blocks, arranged in more or less regular courses [Fig. 4.19]. Because the top of the north curtain is completely overgrown (see Fig. 4.16), and the scaffolding on the south wall suggest climbing to the top of it would have been hazardous, the internal composition of the curtains is less clear. Fortunately, however, Lattermann records that “Die Steine liegen teils als Läufer, teils als Binder; das Innere ist mit kleineren Steinen und Erde ausgefüllt.”

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535 There is, as mentioned, the very occasional trapezoidal or rectangular block. The latter is more prevalent on the north side of the tower at the terminus wall. Despite the assertion of Hodkinson and Hodkinson (1981:247) that none of the fortifications display isodomic coursing, considering the imprecise nature of the standard categories of classification, I would argue that this stretch of curtain is best described as such.

536 Lattermann (1913:411).
Because only a relatively small area of the acropolis was fortified, a complete and detailed account of their dimensions was possible [Fig. 4.20]. As mentioned, although today much of the north wall is no longer visible, Lattermann did observe a semicircular tower, 8 m in diameter, located 21.30 m northwest of the gate.537 The stretch of the north wall that does survive today extends north of the gate for 7.10 m, is 3.60 m thick, and stands 3.10 m (seven courses) high.538 The southern end of this wall, comprising the eastern side of the gateway, survives for 6.81 m and is 3.25 m thick at its terminus. The western face of the southern curtain, including the rectangular tower, survives today for a

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537 Ibid., (1913:412).
538 These measurements are the maximums for the external or east side. The west side is only preserved to a height of 1.50 m (five courses).
total length of 14.30 m. Furthermore, the northwest corner of the rectangular tower contains seven extant courses reaching a height of 3.40 m. The northern side of this tower measures 4.40 m in width, and according to Lattermann, is 6.90 m long on its western side.\textsuperscript{539} Lattermann also determined that the southeast corner of the tower jumps out 1.80 m from the curtain, itself 3.20 m thick, which then continues south for 16 m.\textsuperscript{540} The southern terminus of this curtain is 3.87 m thick and includes another semicircular tower, which although poorly preserved, Lattermann determined to be 9 m in diameter.\textsuperscript{541} Finally, the gate formed by the overlapping stretches of curtains is oriented north-south and the passageway is preserved for a length of 6.81 m [Fig. 4.21].

\textsuperscript{539} As the west face of the southern curtain appears completely uniform, I cannot discern the spot where Lattermann marks the division between the west side of the tower and the rest of the curtain.

\textsuperscript{540} Lattermann (1913:411). The presence of the support scaffolding prevented me from personally obtaining measurements for this side.

\textsuperscript{541} Ibid., (1913:412).
About halfway down the east side is a flat stone on the ground abutting the curtain with a circular cutting (d. 14 cm) to receive the axle for a door.\textsuperscript{542} Also on its east side, the courses in the curtain decrease in number (from north to south) corresponding to the slight rise in the passageway as one enters, so that the final three courses of blocks at the southern terminus of this curtain rest directly on a bedrock outcrop. At this spot, the width of the passageway is 2.69 m, only slightly narrower than the opposite end, which measures 2.86 m in width.

4.2.3 Strategy, Tactics, and Defensive Planning

Both the topography and geographical location made Paniyiristra hill a well-chosen setting for the acropolis of Nestane. Rising 90 m on the edge of a plain, this hill comprised the highest point of a small east-west running spur that was linked to its main mass by a narrow saddle on which likely stood the ancient settlement. The topography of the hill, characterized by precipitous slopes on all sides but the east, not only eliminated the need for extensive fortification works, but provided a defendable height that was easily accessible from the adjacent settlement.\textsuperscript{543} Still, the fortification works on the east does suggest an uncertainty concerning the inherent defensibility of this side of the hill and the need to safeguard the only point of access to the otherwise secure acropolis. As an acropolis-type circuit, it is not surprising to find that the main purpose of Nestane’s fortifications was the protection of both the gate and the main approach. The position of the semicircular tower on the north curtain strongly suggests that access to the gate was

\textsuperscript{542} For a sketch of this cutting, see Lattermann (1913:412, Abb.7) and on its mechanics, see Lawrence (1979:253).

\textsuperscript{543} Accessibility for the citizenry would have been especially important if the citadel did house the Sanctuary of Demeter mentioned by Pausanias (8.8.1), as maintained by Lattermann (1913:415-16) and Hodkinson and Hodkinson (1981:247).
from this direction (see Fig. 4.20). As this tower barely covers the gate, its position so far north can only be explained if the path leading to the gate ran in front it. Not only would this tower command a 180° range of fire, but advancing from this direction would ensure that the right, unshielded side of anyone approaching, was presented to it. Indeed, Winter notes how at Nestane, it was the location of a road, rather than that of the tower that enabled the defenders to employ the natural features of the site to its greatest advantage.544

The position of the rectangular tower, on the other hand, shows that its defensive role in the circuit was more straightforward. Located firmly at the opening of the gate, this tower was undoubtedly meant to safeguard entry into the citadel itself. Still, its advantageous location also meant that it could provide cover for the main approach from its northern side, while its eastern side could guard approaches from south of the acropolis. Placing the gate’s flanking tower on the left side rather than the right suggests that this latter function must have been considered important. The necessity for vigilance and protection from the south is also implied by the form and position of the other semicircular tower. Based on Lattermann’s plan, this tower is placed at the point where the southern curtain changes direction towards the southwest.545 Although of no use in protecting the northern approach or the gate itself, its curvilinear form ensured a 180° view of the area northeast to southwest of the acropolis.

These tactical elements of the circuit on the east, constructed to complement the natural defenses of the rest of the hill, provide some clues to the larger strategic concerns of Nestane, and ultimately, the polis to which it was a dependent, Mantineia. On one

545 Lattermann (1913:409-10, Abb.6).
hand, this acropolis functioned as a citadel, perhaps even a sanctuary, for the *polis* of Nestane; on the other, it appears to have functioned as a kind of fortress to guard the passes from the Argolid and the roads from Tegea.\(^{546}\) Pausanias records two mountain passes leading into the Mantinike from the Argolid: the Skales and Prinos pass;\(^{547}\) the former issuing in the northern part of the plain of Nestane, the latter, just east of the modern village. Paniyiristra Hill was certainly selected for its capacity to observe both [Fig. 4.22].

![Fig. 4.22. Panoramic view of Nestane plain from acropolis (facing W)](image)

It is likely, moreover, that the route traversed by the modern Korinthos-Tripoli highway over the Skales pass, was in antiquity, also a major thoroughfare linking Arkadia to Argos and the Corinthia beyond. This road, passing through the territory of Nestane, continued south, linking the Mantinike with the territory of Tegea – their long-standing regional adversary. Besides being ideally positioned to observe routes from the Argolid, Nestane was also conveniently situated to monitor the movements of their southern neighbours.\(^{548}\) The semicircular tower on the south curtain of Nestane’s acropolis, therefore, while ineffectively placed to guard the gate itself, is, on the other hand, well-suited to protect approaches from the south. Finally, as noted by the Hodkinsons, the remains of a rectangular watchtower located on a small hill at the

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\(^{546}\) Cf. with the early and astute observations of Clark (1851:129-130).

\(^{547}\) Paus. 8.6.4.

\(^{548}\) Here, of course, including the Spartans as well as the Tegeans.
southwest end of the plain of Nestane, is further “evidence of Mantineian vigilance in this region of their territory.”

4.2.4 Chronology

Although over the years, several scholars and travelers have drawn parallels between the fortifications of Nestane and the great circuits of Mycenae and Tiryns, the walls of Nestane’s acropolis are undoubtedly not relics of the Bronze Age. Instead, this perceived similarity owes more to the effective and common design of Classical and Hellenistic period gates that had simply been “anticipated by the military engineers of the Bronze Age.” Instead of looking for Bronze Age parallels, Lattermann more appropriately compares the fortifications of Nestane with those of the rebuilt Mantineia, and concludes that both are contemporaneous and date to ca. 370 BCE. Such a date corresponds well with the historical and archaeological evidence. The fragments of Ephorus and Theopompus, which mention Nestane, have been dated by Jacoby to the Arkadian resurgence after Leuktra in 371 BCE, and the period of 346-328 BCE respectively. These references likely demonstrate that Nestane was inhabited at least in the second third of the fourth century BCE. Nor is such a date contradicted by the

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550 For example, “the resemblance of Nestane to Tiryns and Mycenae in natural situation, in the style of its fortifications, and in the appearance of artificial leveling at the top of the hill” (Frazer 1898:4.200); and “[at Nestane] there is a gateway defended like that at Mycenae by a projecting wall” (Clark 1851:128). Simpson and Dickinson (1979:79) too maintain that parts of the circuit resemble Cyclopean work from the Late Bronze Age.
551 Winter (1971a:210). Winter specifically cites the gate at Nestane as an example of this trend.
552 Lattermann (1913:414).
553 Ephorus (FGH 70 F 234); Theopompus (FGH 115 F 175);
554 FGH ii C 27, 103.
555 FGH ii B 31.
556 As noted by Hodkinson and Hodkinson (1981:248), this evidence accords well with the sherds discovered by Howell. See above n. 516.
composition of the fortifications themselves or the styles of masonry employed. The Hodkinsons note the differing styles of masonry in the walls, and assume that they do not denote different chronological periods, but the "simultaneous work of different masons." In this I think they must be correct for the simple reason that to function at all effectively as a defensible gate, then both of the curtains had to have been built contemporaneously. Therefore, based on the history, known archaeology, composition, and masonry styles, the fortifications appear to have been constructed in a single period, most likely between ca. 370 and 350 BCE, in connection with the second synoikism of Mantineia.

4.3 Ancient Mantineia

Mantineia was not only one of the five “megalai poleis” of ancient Arkadia described by Pseudo-Skylax, but is also arguably the one best historically documented. An artificial foundation, Mantineia was created by the political and physical synoikism of four or five small villages sometime in the late sixth or early fifth century BCE. Mantineia was a member of Hellenic League against Persia, and in 480 BCE contributed 500 hoplites at the battle of Thermopylai. Later, the city was a member of the Peloponnesian League, although their “relations with Sparta were very varied and

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558 Lawrence (1979:178) too maintains that “a site so appropriate for guarding the frontier is likely to have been exploited soon after the refounding of Mantineia in 371.”
559 Ps.-Skylax 44. The others being Stymphalos, Orchomenos, Tegea, and Heraia. A comprehensive listing of the extensive evidence for Mantineia’s polis status is wasted here. See Nielsen (2002:567-72) for summary of evidence.
560 Strab. 8.3.2. See above, n. 514.
561 Hdt. 7.202. Incidentally, the Mantineians arrived too late to participate at Plataia.
562 Thuc. 5.29.2; Xen. Hell. 5.2.3.
seldom easy.”563 This relationship reached a breaking point in 421 BCE, and Mantinea
defected from the league, partnering instead in an alliance with Argos, Athens, and
Elis.564 After only three short years, however, the city was again brought into the Spartan
fold following their defeat at the first Battle of Mantinea in 418 BCE.565 Mantinea
would remain an ally of Sparta for the next 33 years, until their apparent apathy to the
Lakedaimonian cause would pave the way to a new and regrettable phase in the city’s
history.

In 385 BCE, the Spartans, concerned that Mantinea was “more favourably
inclined toward the enemy than toward Lakedaimon….ordered them to tear down their
city wall.”566 When the Mantineians refused, the Spartan king Agesipolis laid waste the
land and prepared to lay siege to the city. But, the king did not have the time, resources,
or patience for a traditional siege. Instead, knowing the inhabitants were well supplied
with food from the recent harvest, he proceeded to dig a trench around the city’s
mudbrick fortifications, into which he diverted the adjacent Ophis River. As the trench
filled with water, Xenophon tells us, the level “rose not only above the foundations of the
houses but above those of the city wall. Then as the lower bricks became soaked and
failed to support those above them, the wall began first to crack and then to give way.”567
As the walls melted, so to did the inhabitants’ hope of deliverance, and the city was
forced to yield. The tearing down of the walls and a forced dioikism of its inhabitants to

564 Thuc. 5.29.1.
565 Ibid., 5.81.1. For a detailed historical analysis of this, the largest land battle of the Peloponnesian War,
566 Xen. Hell. 5.2.1.
567 Ibid., 5.2.5.
their ancestral villages were among the conditions imposed on Mantinea by the Spartans.\textsuperscript{568} Their forced exile, however, would last only 15 years.

Following Sparta’s defeat at Leuktra in 371 BCE, the scattered Mantineians, perhaps with Theban assistance,\textsuperscript{569} were synoikized again and returned to rebuild their city (and city walls) so recently destroyed by the Spartans.\textsuperscript{570} Around the same time, the Arkadians were moving towards the foundation of the Confederacy, a process in which Mantinea performed a leading and instrumental role. The same Mantinea, however, would also play a major role in the splitting of the Arkadian Confederacy a few years later. In 362 BCE, parts of Arkadia, with Mantinea at its head, jealous of the rising power of Megalopolis and Tegea – the traditional rival for the leadership of Arkadia - deserted the Arkadian League and joined in treaty with Athens and Sparta.\textsuperscript{571} In response to Tegea’s appeal to Thebes for support and to avoid a total collapse of Thebes’ Peloponnesian policy, Epaminondas advanced south and with his Tegean-led Arkadians, Argive, Messenian, and Boeotian allies, took the field against the Spartans and their allied forces of Elis, Athens, and the Mantinea-led faction of Arkadians.\textsuperscript{572} Although the Thebans were ultimately victorious in the second Battle of Mantinea, “it resolved nothing – its result was one of widespread exhaustion and war-weariness.”\textsuperscript{573} Indeed, this battle, meant to decide the hegemony over the Peloponnese, resulted in “even more

\textsuperscript{568} Pausanias (8.8.9) maintains that the Spartans left a small part of the city inhabited.
\textsuperscript{569} For the argument against Theban involvement in the second synoikism of Mantinea, see Demand (1990:109-110).
\textsuperscript{570} They also wisely diverted the course of the Ophis River from its previous one, passing through the city to a new course circumventing the city – and thus from a strategic liability into an additional measure of protection.
\textsuperscript{571} Buckley (1996:461); Woodhouse (1892:3).
\textsuperscript{572} Xen. \textit{Hell.} 7.4.40.
\textsuperscript{573} Buckley (1996:462).
confusion and disorder in Greece after the battle than before,”574 and ultimately paved the way for Macedonian conquest. In the early years of the Hellenistic period, Mantineia, like Megalopolis, appears to have been the leading city of a diminished confederacy.575

Soon after joining the Achaian League, the city fell for a short time into the hands of Kleomenes and the Spartans before being recovered by Aratos.576 Finally, in 222 BCE, the city revolted against Macedonian control and was destroyed by Antigonos III. Resettled by the Achaian League, an ally of Macedon in 221 BCE, the city was renamed Antigoneia, a name that it retained until the second century CE.577

Owing to the relative historical importance and celebrity of the site, a stop at Mantineia was usually a prerequisite for most of the early travelers. Pausanias, who provides our first recorded account, in his usual manner, supplies something of the city’s history before beginning his description of the physical remains.578 Although he recounts the story of Agesipolis’ ingenious sack of the city, Pausanias pays little attention to the state of the fortifications in his day – instead content to describe the variety of monuments and buildings within the city. Still, because prior to excavation parts of the theatre and the fortifications comprised the only visible extant remains on the site, the city walls of Mantineia received the attention of all the 19th century travelers to the site.

The basic elliptical form of the trace, its constituent rectangular towers, the preservation and form of the foundations, and the interesting overlap gates, for example, were all observed and recorded by Gell, Dodwell, Leake, Boblaye, Ross, Curtius, Clark, and

574 Xen. Hell. 7.5.27.
576 Polyb. 4.8.4.
577 Polyb. 2.58.4; Paus. 8.8.11. Mantineia was not ignored by the Romans. Augustus made repairs to public buildings, and Hadrian, besides restoring the city’s original name, instituted a cult of Antinoos. The city continued to be inhabited into the sixth and seventh centuries CE (Mee and Spawforth 2001:259).
578 Paus. 8.8.4-8.9.10.
Bursian.\footnote{Gell (1817:1.141-42); Dodwell (1819:2.421-24); Leake (1830:1.102-09), (1846:111-12; 382); Boblaye (1836:139-40); Ross (1841:1.124-26); Curtius (1851:235-42); Clark (1858:132-137); Bursian (1862:2.209-13). None of these scholars, however, could agree on the number of towers or gates.} While many of these men added original and important insight into the history of both the walls and the site itself, it was not until the later part of the century that significant archaeological contributions began to appear.

The first analysis devoted specifically to the fortifications of Mantineia was by de Rochas d’Aiglun in 1881.\footnote{It should be noted, however, that the account of de Rochas d’Aiglun (1881:80-81) is brief, superficial, and incorrect in the basic chronology.} A few years later, the archaeological potential of Mantineia attracted the interest of the École Française d'Athènes and excavations, directed by Fougères and Bérard, were carried out between 1887 and 1889. Although their work revealed many buildings in the agora and also included fairly detailed analysis of the fortification circuit, their excavations were neither complete nor systematic.\footnote{The team was limited by finances and consequently work was restricted to a relatively brief overall campaign, totaling just over six months (Hodkinson and Hodkinson 1981:256).} Nonetheless, Fougères’ study of the fortifications published in 1890 is still the most comprehensive account, and remains a pivotal starting point for any research on the subject.\footnote{Fougères (1890). Almost the exact same content from this article is reproduced in Fougères (1898:130-61), but since the later version has some amendments, it will be employed for the present purposes.} Appearing around the same time as Fougères’ \textit{Mantinee et L’Arcadie Orientale}, was Frazer’s commentary which, as we have come to expect, includes a substantial amount of detail, both topographical and archaeological, concerning the ancient city and its fortifications.\footnote{Frazer (1898:4.201-16).} Finally, the interest generated by the history and remains of Mantineia carried over into the 20\textsuperscript{th} century, here represented by the
4.3.1 Geography and Topography

The *polis* of Mantineia is located approximately in the centre of its territory, which comprises the north part of Arkadia’s great eastern plain [Fig. 4.23]. In its entirety, this plain is roughly hourglass-shaped, with the narrow middle section representing the boundary between the plains of Tegea to the south and Mantineia to the north. The Mantineian plain, measuring ca. 13 km north to south and between 4 and 7 km east to west, is surrounded by mountains on three sides. Separating Mantineian territory from

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584 Hodkinson and Hodkinson (1981) is basically a historical and archaeological summary and analysis of settlement within the territory of Mantineia in Archaic and Classical periods. Winter (1989:189-92) re-examines the constituent parts of the fortifications to confirm the accepted chronology.
that of Orchomenos to the north was Mt. Armenias and the low-ridge called Anchisia.\footnote{585} The eastern limit of Mantineian territory was the plain of Nestane, which was separated from the main Mantineian plain by Mt. Stravomyti and Mt. Barberi. South of Nestane was the valley of Louka, which almost certainly represented the southeast extent of Mantineian territory “owing to its position in relation to the plain of Mantinea.”\footnote{586} The boundary with Tegea to the south was, as mentioned, not defined by mountains, but by the narrowest part of the plain between Mt. Krobriza and the hill of Mytika.\footnote{587} Finally, to the west, Mantineian territory extended to the slopes of a low chain of hills known as Lioritsi.\footnote{588} In short, the territory of Mantinea was 295 km² and encompassed the plain of Nestane, the plain of Louka, and the plain of Mantinea – in which the polis itself was located. But the city of Mantinea was not the only community in its territory, and a number of other smaller settlements – including at least two dependent poleis – are attested to by Pausanias.\footnote{589}

The Mantineians built and fortified their settlement in the flat plain, immediately south of Gourtsouli hill, and roughly in the centre of the Mantineian plain. This plain not only contains a large amount of arable land, but also an ample supply of water to ensure

\footnote{583} Paus. 8.12.8-9. 
\footnote{586} Hodkinson and Hodkinson (1981:244). 
\footnote{587} This narrow stretch of the plain is ca. 3 km wide east to west. Gell (1817:1.141), Dodwell (1819:2.421), and Clark (1858:136-37) all observed remnants in this area of what they believed to have been an ancient wall separating the territories of Mantinea and Tegea. 
\footnote{588} For a summary of the arguments as to whether the territory also included the narrow north-south running Kapsia valley, immediately west of the Mantineian plain and east of the Manalo Mountain range, see Hodkinson and Hodkinson (1981:244-46). 
\footnote{589} The poleis include Nestane and Helisson. While Helisson was not originally Mantineian, the city voluntarily became a dependent polis sometime during the first quarter of the fourth century BCE. See above n. 512. The other settlements mentioned by Pausanias include Maira (8.12.7), Melangia (8.6.4), and Ptolis (8.12.7). For the arguments on the disputed locations of Maira and Melangia, see Hodkinson and Hodkinson (1981: 248-50, 252). It is almost certain that Ptolis was located on Gourtsouli hill, immediately north of Mantinea.
its fertility [Fig. 4.24]. There are three main streams: the first, originating above modern Pikerni in the north part of the plain, flows west into a series of three katavothroi. The second, is the infamous Ophis river, which originally flowed through the city but whose course was diverted to circumvent the town in 370 BCE. This stream originates south of the city and ultimately ends in the katavothroi mentioned above. Finally, the third major tributary supplies water to the southern part of the plain. It originates near the modern town of Skopi and flows northwest until it reaches a katavothros on the southwest edge of the plain.

As a major polis located in the plain in the centre of an extremely large valley, we should expect the Mantineian road network to be more complex than in those areas more confined by the mountainous topography characteristic of most of Arkadia. Indeed, based

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590 Some might say there is, in fact, too much water. Many of the travelers describe sections of the plain as swamps or marshes in the nineteenth century. Today, drainage appears to be less of a problem as evidenced by the growth of wheat almost everywhere. On the agricultural potential of the territory, see Hodkinson and Hodkinson (1981:265-71).

591 If the ruins near Pikerni are to be associated with ancient Melangia, as maintained by Hodkinson and Hodkinson (1981:252), then this stream was the source of the Mantineian drinking water as mentioned by Pausanias (8.6.4).
on the fact that the fortifications contain ten gates and employing the local itinerary of Pausanias, Fougères assumes there must have been a corresponding number of roads leading to the major poleis outside Mantineian territory. Although I am not convinced by Fougères’ logic in every respect – for example, I doubt there was one road to Tegea and a separate one to Pallantion – he must be correct in the general deductions. Based on the topography of the valley (and Mantineia’s position therein), and its relation to eastern Arkadian geography, we can confidently presume the existence of a major road leading toward Tegea in the south, one which skirted the Anchisia ridge north toward Orchomenos, one that led toward the plain of Nestane and Argos to the east, one that led to Alea and Stymphalos northeast of the city, and at least one that led towards the Helisson valley and Megalopolis in the southwest.

4.3.2 The Fortifications

The Mantineian fortifications are comprised of ten sections of curtain arranged to form an elliptical enclosure, with the longer axis oriented north-south. Its perimeter measures 3.942 km, includes over 120 towers, 10 gates, and encloses an area of 124 ha [Fig. 4.25]. Although most of the 19th century travelers to the site had cause to comment on the desolation and melancholic quality of the plain and the lack of any intramural remains, they were consistently impressed by the survival of the circuit

592 Fougères (1898:160-61). Leake (1846:112) has his own opinions in this regard.
593 I would like to thank the 39th Ephorate of Prehistoric and Classical Antiquities for granting me a study permit to examine the remains of ancient Mantineia. Because much of the circuit was concealed by overgrowth or enclosed in people’s property, however, I was unable to make many useful measurements and had to rely instead on those made and published by Fougères (1898:130-61).
594 Fougères (1898:140, 150, 151ff).
itself.\footnote{595} With the exception of some sections on the west, the fortifications are preserved for nearly its entire extent. Laid out on what was, especially for Arkadia, nearly completely level ground, the fortifications of Mantineia are of the comparatively rare horizontal type.

Moreover, both the historical sources and the extant remains themselves confirm conclusively that the circuit of ca. 370 BCE, like its predecessor, was comprised of mudbrick superstructure atop a stone foundation. This is made clear by the fact that the stone socle “toute l'étendue du circuit, le niveau supérieur se maintient sensiblement égal, quelles que soient les variations de la hauteur du front d'escarpe au dessus du sol ondulé”

\footnote{595} Leake (1830:1.108-09) was especially affected by the present state of the community in his time, observing how this once “proud city, one of the eyes of Arcadia, has become a dependency of a farm of an Asiatic Barbarian.”
Indeed, such a uniformly and well-preserved socle not only suggests that in antiquity it was the same height as exists today, but also, that the walls have not suffered, what Leake colourfully refers to as, “masonic depredations.”

The stone socle which formed the base of the curtains is comprised of the standard three elements: an inner wall, an outer wall, and the fill in between. The greater part of the extant sections of the outer wall is isodomic trapezoidal with broached work surface treatment [Fig. 4.27]. The remaining minority is in the coursed polygonal style. This outer wall was built of large limestone blocks which were laid in two, three, or four courses – depending on the changes in the ambient ground level. The lowest course of the outer wall, which rests directly in the soil, is on average smaller than those

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596 Fougères (1898:144).
597 Leake (1830:1.105).
598 Scranton (1941:90); Fougères (1898:141).
599 I could not find the polygonal portions although they were noted or observed by Leake (1830:1.104), Curtius (1851:236), Clark (1858:134), Frazer (1898:4.202), Fougères (1898:141), Scranton (1941:57-59), and Winter (1989:192). Hodkinson and Hodkinson (1981:257) maintain that the polygonal section is located in the southern part of the circuit between Gates F and I (see Fig. 4.25). The chronological implications of the differing masonry styles are addressed below.
600 Fougères (1898:141). This explains the inconsistency in the early travelers testimony. For example, Leake (1830:1.103) saw no more than three courses; Ross (1841:1.124) observed two to four courses; Curtius saw three to four; Bursain (1862:2.211) and Frazer (1898:4.202) witnessed two to four; only Clark (1858:135) claims to have seen five courses.
above. Although the blocks in the outer wall vary considerably in length – some exceeding 1.50 m – they are on average 0.65 m high and 0.45 m deep and consistently larger than those of the inner wall. Moreover, every three or four meters, some of these blocks are laid perpendicularly to act as headers. These headers helped to bind the wall to the earth and rubble fill that packed the space between the two faces. Taken together, the stone socle (and the mudbrick superstructure) averages between 4.20 m and 4.70 m in thickness. Of the mudbrick superstructure, of course, nothing remains, and Fougères admits that any speculation as to the nature of the parapet or upper parts of the tower would only be conjecture. We are in a position, however, to say something about the lower parts of the towers.

The Mantineian circuit was provided with two basic types of towers – rectangular and circular – with each type performing a different function. While the rectangular towers were placed predominately along the main curtains, the circular towers were exclusively reserved for protecting the gateways. There are 105 rectangular towers and 21 circular towers, for a total of 126. The rectangular towers measured an average of 6.50 m to 6.60 m wide, and projected between 4.50 m and 5.0 m from the curtains.

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601 Fougères (1898:140-41). In places, the lowest course of the stone socle was found to lie only 0.50 m below the surface.
602 Ibid., (1898:141, 144).
603 Ibid.
604 Both Leake (1830:1.104) and Frazer (1898:4.202) claim to have observed mortar mixed in with the rubble fill. I could find no mention of this by Fougères (1898) and I suspect that Leake and Frazer were mistaken or observed Roman repairs.
605 Fougères (1898:144).
606 Ibid., (1898:143).
607 The circular towers are discussed with the gates below.
608 Fougères (1898:150). The early travelers could not reach a consensus regarding the number of towers. Gell (1817:1.141) noted 116 towers, Leake (1830:1.104) 118, Boblaye (1836) 120, Ross (1841:1.125) 129, and Curtius (1851:237) observed 120.
609 Fougères (1898:146).
These towers, moreover, were placed at fairly regular and close intervals, with an average of only 25 m to 26 m between each.610 Structurally, like the main curtains, the superstructure of the towers were also constructed of mudbrick. At ground level, however, we see considerable differences. The stone socle of the rectangular towers, for example, was comprised of a double row of blocks, making their average thickness double or triple that of the curtain’s outer face.611 Furthermore, each tower was provided with a ground-floor chamber that communicated with the city by a narrow opening in the curtain.612 Fougères is certainly correct in assuming that this chamber would have contained wooden stairs that led not only to an upper chamber, but also provided access to the battlements flanking the tower.613

A hollow ground floor introduced structural and defensive concerns that needed to be addressed. Although the socle of the towers is thicker than the outer face of the adjoining curtains, it is still only a third as thick of the total width of the curtain. With an average thickness of only 1.60 m, the mudbrick walls of the towers were vulnerable to the ram, which if employed successfully, would surely cause the tower to collapse like a “châteaux de cartes.”614 Indeed, before the widespread use of artillery, it was the ram and the use of scaling ladders that posed the greatest threat to the security of the walls. Accordingly, important tactical and structural provisions were implemented for the rectangular towers. As Fougères points out, because the towers were not bonded to the curtain, in the eventuality that the tower was brought down by an enemy ram, the main

610 Ibid., (1898:143).
611 Ibid., (1898:147).
612 Ibid.,
613 Ibid., (1898:149).
614 Ibid., (1898:148).
curtain would not have been compromised. Furthermore, the resulting pile of rubble that would have collected in the ground storey chamber would have blocked the tower’s small door, thus preventing enemy troops from gaining entrance into the city behind. Hopefully it would never come to this and as an added precaution, many of the towers were also provided with small posterns. From these small openings defenders could launch fast and sudden sorties from the towers on enemy machines before they got close enough to inflict significant damage to the walls. If, however, an enemy was emboldened enough and thought to storm the city through the gates, they would instead find themselves challenging perhaps the most resilient and original parts of the circuit.

The Mantineian circuit is furnished with ten gates. These gates are situated more-or-less on the cardinal points (see Fig. 4.25): Gate A on the northwest, Gate B on the north, Gate C on the north-northeast, Gate D on the northeast, Gate E on the east, Gate F on the southeast, Gate G on the south-south east, Gate H on the south, Gate I on the south-southwest, and Gate K on the west. While all but one of these gates are of the overlap variety, the plans of the different gates differ in detail. Still, they are all constructed upon the same defensive principles with the objective of subjecting an enemy to a cross-fire of missiles from every direction. To uphold these principles and meet this objective, the entrance to each gate was flanked and defended by two towers, the majority of which are either curvilinear or rectangular. Moreover, all contained provisions for a door at each end of the narrow passage, forming in essence, small gate-

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615 Ibid.
616 Ibid.
617 Gate labels after Fougères (1898). There is no Gate J. Gates E, H, and I have left no trace. For the arguments that they did indeed exist, see Fougères (1898:155-56). On the discrepancies between the early travelers’ descriptions of the gates see Fougères (1890:84-88).
618 The opening of the gates average 4.40-5 m in width (Lawrence 1979:303).
619 Frazer (1898:4.203); Fougères (1898:152).
courts, into which defenders could discharge a barrage of missiles from the curtains above.

**Fig. 4.28. Mantineian overlap gates (after Fougères 1898)**

Gates B and D represent fairly standard examples of the overlap-type gate, in which the narrow entrance is formed by two extended stretches of the curtain protected by circular towers on each side [Fig. 4.28]. Gate C closely resembles B and D, but instead of flanking circular towers, it possesses one circular tower protecting the right side and a long rectangular bastion on the left. Gates F and K too combine different tower shapes. In the latter we find its entrance protected by both a rectangular tower and a semicircular example, while a circular and hexagonal tower guards the former. What these gates have in common is that the towers placed to the right of the entranceway in every case are curvilinear or pentagonal – i.e., not rectangular. Their advantageous shape ensured the maximum field of fire necessary to cover an approach from any direction. Moreover, the
gates are all designed in a way that would force an enemy to turn left upon entry, thus exposing their unshielded right side to the internal wall. With this provision, not only could a large number of defenders mass above the narrow courtyard along this internal wall, but they would be “abrités contre les coups du dehors par le mur opposé.”

The other extant examples, Gates A and G do not conform to the patterns established for those gates outlined above [Fig. 4.29]. Although Gate G is technically an overlap gate, the narrow gate-court produced by the overlapping sections of curtains is extremely short. Moreover, it is not proceeded by long parallel stretches of wall, but is instead located where the adjacent curtains meet at an angle. Accordingly, the front of the tower to the right of the entrance – one of the standard rectangular towers of the curtain – is at a 45° angle to the opening. Fougères maintains that it was unnecessary here to establish the prominent tower coverage for the gate (supplied by a curvilinear tower) because this adjacent rectangular tower was less than 15 m from the gate and was fitted with a postern. Still, to increase the strength of the gate further, instead of the inside

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620 Fougères (1898:154).
621 This tower, at 7.50 m wide, was also larger than the average curtain towers (ibid., 1898:156).
wall being simply a stretch of curtain, as seen in the examples above, the whole inner wall of Gate G is protected by a large rectangular bastion.

Gate A, located in the northeast part of the circuit, is unique among those of the Mantineia. Here there is no overlapping of the curtains, but a frontal entrance preceded by a semicircular outer court flanked by two circular towers. In the centre of this court was a small door which led to another rectangular courtyard behind. This inner courtyard too was provided with a small gate opposite the first.622 The parallels between Gate A, the Arkadian Gate at Messene, as well as the Phlious Gate at Stymphalos are obvious and have been commented upon by others.623 Fougères explains the obvious tactical advantages to such a system: “l’assaillant qui avait forcé cette entrée se trouvait ensuite enfermé dans une petite cour rectangulaire d'où les traits pleuvaient sur lui de tous les côtés.”624 To even reach the gates of Mantineia, however, an enemy would first have to engage the city’s outer defenses.

When Leake visited the site in the early 19th century he was dismayed to discover next to the site “a great number of serpents sleeping in the sun on the edge of the ditch under the walls.”625 This ditch full of snakes, somewhat ironically, was what remained of the Ophis River.626 In order to avoid the disaster imposed by the Spartans in 385 BCE, when the Mantineians were rebuilding their city after Leuktra, they aimed to divert the river’s original course through the city.627 To achieve this, and to turn the river into part

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622 As such courtyard gates are more typical of the Hellenistic period, Winter (1971a:227) wonders if this rectangular court was contemporary with the rest of the structure, or was a latter addition.
623 E.g., Frazer (1898:4.204); Fougères (1898:153); Winter (1971a:217); Gourley and Williams (2005:232-33).
624 Fougères (1898:153).
625 Leake (1830:1.105).
626 Ophis is Greek for ‘snake’.
627 Xen. Hell. 5.2.7.
of the larger defensive system of the town, they proceeded to dig a ditch around the whole city into which the course of the river was turned. In this way, Mantinea “affords a rare example of a moat (not a ditch) completely encircling a city.”  

4.3.3 Strategy, Tactics, and Defensive Planning

Located less than 1 km north of Mantinea is Gourtsouli hill. With a circumference only slightly smaller than the city itself, the hill rises 100 m from the surrounding plain. That this seemingly ideal natural acropolis was not incorporated into the defenses of the city remains, as Leake observes, “a curious fact in reference to the military engineering of the Greeks.” This is a fact that concerned many of the early travelers to the site. Clark, for example, maintains that the reasons “why the Mantineians abandoned the old and to all appearance more eligible site, and why they did not retain the old city for the Acropolis of the new, are questions we have no means of answering.” It is Leake, however, who appeared most unsettled by this ‘curious fact’, and expended a considerable amount of his Mantineian account on this very subject. Leake implies that cost was the main factor in the hill’s exclusion from the larger city defenses. This would perhaps have been true if, as he suggests, the hill was fortified as a separate citadel. Similarly, uprooting and moving the foundations of the original fortifications and moving the city slightly north to embrace the hill upon the city’s refoundation in 370 BCE, would also have been cost prohibitive. But these reasons do not explain why the hill was not included in the city’s defenses at the time the original circuit

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629 Leake (1846:382).
630 Clark (1858:132).
631 Leake (1846:382).
632 Ibid.
was constructed after the first synoikism. The simplest and most plausible reason, as suggested by Leake, was that because at the time of its original construction artillery had not been invented, and after the second synoikism it was still in its infancy and the hill was “too distant to effect much injury with ancient missiles.”\footnote{Ibid.} In other words, besides being able to observe the activities of the inhabitants, the offensive advantages of an enemy holding the heights of Gourtsouli hill would have been minimal before the widespread use of artillery.\footnote{Fougères believes the reason they did not include this hill was politically motivated and the decision was promoted by Epaminondas. Specifically, he maintains that “ces citadelles risquaient en revanche de compromettre l’ordre intérieur en offrant un repaire aux factieux de toutes sortes, aristocrates sans scrupules, ou démogogues aspirant à la tyrannie” (1898:135).} Instead of incorporating the high ground, the underlying defensive principles employed by the Mantineians, implied by their choice of a site on completely open ground, would rely less on topography and more on tactics manifested in the man-made defenses.

When the scattered Mantineians came together (again) from their ancestral villages to rebuilt their city after Leuktra, they chose the same site on which the earlier city had stood.\footnote{Ibid.} Having learned the brutal lesson handed to them by the Spartans in 385 BCE, the Mantineians immediately set to turn the topographical disadvantages of the site to their advantage – first by increasing the height of the stone socle of the fortification circuit, and second, by turning the course of the Ophis river so it became a defense rather than a danger. A higher stone socle not only increased the overall strength of the walls, but also eliminated the risk of its collapse by inundation. The defensive advantages of this moat are also twofold: as a outwork, it acted to keep enemies from easily reaching the walls, and, if an enemy did command the bridges and was able to cross the moat, they

\footnote{633 Ibid.}
\footnote{634 Fougères believes the reason they did not include this hill was politically motivated and the decision was promoted by Epaminondas. Specifically, he maintains that “ces citadelles risquaient en revanche de compromettre l’ordre intérieur en offrant un repaire aux factieux de toutes sortes, aristocrates sans scrupules, ou démogogues aspirant à la tyrannie” (1898:135).}
\footnote{635 Ibid., (1898:132).}
would find themselves confined to a small strip of land between the walls and the water. From this unlucky position, offensive numbers would count for little and any attempt to retreat would be impeded by the moat. Not satisfied with a higher socle and an impressive outwork, the Mantineians also introduced a number of tactical innovations to the towers and the gates – innovations “foreshadowing those of the Hellenistic period.”

Because of its exposed position in the plain, Mantineia required defensive provisions be taken on all sides. Consequently, it is in the towers placed throughout the entirety of the circuit where innovation is most apparent. Relatively rare before the Hellenistic period was the introduction of posterns in the external flanks of towers [Fig. 4.30]. At Mantineia, although many of the towers were provided with posterns, they are mostly grouped in the eastern part of the circuit.

Moreover, that these openings are usually only 1 m wide and always occur on the tower’s right side indicate a military rather than civilian function. Directly and functionally

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636 The strip of land between the moat and the city walls is, on average, 20 to 25 m wide (Fougères 1898:157).
638 Fougères (1898:157). Fougères (1898:159) also correctly points out that because of the relatively small size of the posterns and the protection provided by flanking towers, there was little risk of an enemy breaking into the tower and the city through these openings.
related to these posterns were the ground-story tower chambers, which again, were rare before the time of Epaminondas and the Macedonians.\textsuperscript{639} If an enemy managed to cross the moat, there was a real danger that they could bring rams or ladders against the fortifications. To prevent the enemy from reaching the walls, these posterns afforded defenders a close and safe position from which defensive sallies could be made.

Furthermore, the tower’s lower chamber, from which the postern was accessed, provided the defenders a place to muster for the attack. Finally, as the moment of greatest risk to the defending troops was the moment they emerged from the towers in a single-file, the posterns were constructed on the tower’s right side (i.e., facing the field). Thus, as the defenders sallied forth from the postern, they presented their shielded right side to the enemy.\textsuperscript{640}

One of the general tactics employed by Greek military architects, as discussed by Winter, is the placing of a tower to the right of gates where possible.\textsuperscript{641} Fougères acknowledges this general rule, but notes that in the gates of Mantineia, “pareille précaution n’a pas été prise.”\textsuperscript{642} Indeed, all of the gates (except Gate A) are designed with the flanking towers on an attacker’s left. There are several, non-mutually exclusive motivations and advantages to this system. That each gate was covered by a second tower just outside the gate on the inner wall (i.e., on the attacker’s unshielded right), suggests that main advantage of “such gates lay in compelling the enemy to advance some distance below the line of the main wall.”\textsuperscript{643} But how could they ensure that an attacker

\begin{itemize}
\item Winter (1971a:162).
\item Ibid., (1971a:240); Fougères (1898:158).
\item Winter (1971a:216).
\item Fougères (1898:159).
\item Winter (1971a:217). As discussed above, the same is the case for the gate at Nestane.
\end{itemize}
approaches from the appropriate direction? As Mantineia was surrounded by a moat, access to the city required passage over bridges. I believe these bridges, which naturally appear to have been located in the vicinity of the gates, would have been purposely situated in a way which dictated the most defensibly advantageous routes toward the gates.\textsuperscript{644} Finally, placing the main gate tower on the attacker’s left ensured that if an enemy did penetrate the outer court, they still had to fight their way through two doors and an inner court, all while their unshielded right side was exposed to the inner wall. At all the gates, this inner wall extended internally for a considerable distance, on which a considerable number of defenders could mass to repel any assault on the gates.

The resourceful conversion of the Ophis into a moat, the incorporation of ground-storey chambers and posterns into many of the towers, and the sheer number of close-set towers, are all features “typical of the new concept of ‘active’ rather than ‘passive’ defensive strategy that evolved between the end of the fifth and the middle of the fourth century.”\textsuperscript{645} Also characteristic of this active strategy is the defensive use of heavy caliber artillery, which became common after the time of Phillip II. In the circuits which predate this innovation, we might expect to see the later addition (or modification) of structures designed to house such weapons.\textsuperscript{646} At Mantineia, however, no such towers were constructed. As Winter maintains, the small scale of the tower chambers at Mantineia (averaging ca. 25 m\textsuperscript{2}), could not have housed any heavy caliber artillery – torsion or non-

\textsuperscript{644} Gell (1817:1.141-42) observed remains of three bridges leading to the gates, but does not give their location nor to which gates he is referring. Curtius (1851:237) too mentions the remains of bridges without providing their position relative to the city. Fougères (1898:157) observed the remains of bridges in front of Gates B, C, H, and K.

\textsuperscript{645} Winter (1989:191).

\textsuperscript{646} As witnessed, for example, at Stymphalos or Alea.
torsion. While they certainly would have possessed smaller caliber weapons, the heavy stone-throwers, “of great potential value in such open terrain, would in most cases have been out of the question.” Perhaps the Mantineians believed the inherent strength of their circuit was enough; that even if enemy artillery set up at a distance caused a breach in the walls, the ‘active’ defenses inherent in the outworks, gates, and towers would be sufficient to protect the inhabitants from incursion into the city itself. Ultimately, just as we may never definitively know why Gourtsouli hill was not incorporated into the original circuit, so to the question of why the fortifications of Mantineia never adapted to the evolving conditions of Greek warfare and poliorketics of the later fourth century BCE and Hellenistic period, may never be answered. What is more certain, however, is that the refounding and fortification of Mantineia were likely tied to the larger political interests and defensive strategy of Epaminondas and Thebes. The second Mantineian synoikism, therefore, was not only aimed to reverse the misfortune of 385 BCE, but was also part of a strategic plan to both frustrate and curb any Spartan attempt to reestablish their hegemony in the Peloponnese. In addition to Messene, Megalopolis, and likely also Nestane, Alea, and Stymphalos, Mantineia formed part of a network of cities whose geographic positions formed a continuous northern barrier around Lakonia. Because this grand defensive strategy was instituted in the wake of the Battle of Leuktra, the fortifications of Mantineia are among a handful of circuits whose chronology can be confidently established.

648 Ibid.
649 Gourley and Williams (2005:219, n. 10).
4.3.4 Chronology

Owing to the testimony of Xenophon,\(^{650}\) almost every published work with cause to mention the extant circuit of Mantinea is in agreement that its construction commenced at the time of the second synoikism in 370 BCE.\(^{651}\) As to their completion, Winter suggests that the work was likely finished in the early 360s BCE – the haste necessitated by the city’s total lack of natural defenses.\(^{652}\) As there is no indication that the circuit was ever subsequently modified, 370 BCE serves as a convenient *terminus ante quem* for the extant remains. Determining a *terminus post quem*, however, is more complicated, and we must return to the polygonal sections of the south and southeastern curtains mentioned earlier [Fig. 4.31]. Based on stylistic grounds and the historical evidence, Scranton believes that the polygonal sections of the trace belong to the fifth century BCE.\(^{653}\) Furthermore, the low socle – resulting from the fact that only two or three courses in this style exist – adds weight, he maintains, to a pre-385 BCE date.\(^{654}\) Specifically, the inundation caused by Agesipolis and the melting of the mudbrick walls in 385 BCE is compatible with the presence of such a low stone foundation.

Finally, although opposed by the Spartans, in 370 BCE a number of Arkadian cities agreed to send both men and money to help Mantinea construct their walls – again, suggesting a certain hurriedness.\(^{655}\) The use of a mudbrick wall atop a coursed trapezoidal

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\(^{650}\) *Xen. Hell.* 6.5.3-5.

\(^{651}\) To my knowledge, the single exception is Rochas d’Aiglun (1881:80) who puts their date at 320 BCE. I suspect, however, that this is a typographical error, since he does correctly acknowledge that the circuit of Mantinea is contemporary with that of Messene and dates the latter to 370 BCE (1881:81).

\(^{652}\) Winter (1989:191, n.3).

\(^{653}\) Scranton (1941:59). He adds that they may in fact date to the time of the first synoikism, which he dates to 472 BCE.

\(^{654}\) Ibid.

\(^{655}\) *Xen. Hell.* 6.5.5.
socle for the fortifications of the post-Leuktra circuit was also a conscious and expedient choice and further testimony of the desire for a quickly built circuit.\textsuperscript{656} Although construction in the polygonal style is generally more time consuming than rectilinear masonry, and at first glance the sections at Mantinea in this style are perhaps best explained as belonging to the pre-385 BCE circuit, caution is warranted. One of Winter’s key criticisms of Scranton is the latter’s failure to acknowledge that a circuit exhibiting more than one masonry style, may “simply indicate different ‘workshops’, or groups of masons, rather than different building periods.”\textsuperscript{657} As Xenophon tells us that certain of Mantinea’s Arkadian and Elian allies participated in the construction of the post-Leuktra circuit, Winter’s evaluation may be especially applicable here.\textsuperscript{658} Nonetheless, the aid donated by the Arkadian allies, the vulnerable location of the city, the materials and construction style employed, and the superimposition along the trace of the earlier circuit, all suggest a desire for a quickly built circuit. In this scenario, therefore, it is not implausible that in the interests of time and expense, the polygonal parts of the fifth century BCE trace which had survived the Spartan siege of 385 BCE were incorporated into the walls of the 370 BCE circuit.

\textsuperscript{656} Winter (1971a:73, n.11, 86-87); Hodkinson and Hodkinson (1981:258). Lawrence (1979:420) refers to Mantinea as “the last great city founded with a mudbrick wall.”

\textsuperscript{657} Winter (1971a:83).

\textsuperscript{658} Xen. \textit{Hell}. 6.5.5.
4.4 Ancient Orchomenos

Tradition holds that the city of Orchomenos was among the five great poleis of ancient Arkadia, and with its foundation assigned to an eponymous son of Lykaion, also one of the oldest. The antiquity of the settlement is further evidenced by both its mention in Homer’s Catalogue of Ships, and the significant prehistoric remains found in and around the site. The recorded history of Orchomenos – and its fortifications – however, begins in the fifth century BCE. Herodotus tells us that 120 Orchomenian hoplites participated in the battle of Thermopylae and 600 soldiers were present at Plataia in the following year. During the Peloponnesian War, Orchomenos was an ally of Sparta and a member of the Peloponnesian League, and it is during this period that the mention of Orchomenos’ fortifications is first recorded. In 418 BCE Athenians and their Argive allies laid siege to Orchomenos in the hopes of emancipating a group of Mantineian hostages placed and held there by the Spartans. Thucydides tells us that the citizens of Orchomenos were “alarmed at the weakness of their wall and the numbers of the enemy, and at the risk they ran of perishing before relief arrived, capitulated.” After this defeat, Orchomenos joined the alliance between Athens, Argos, Elis, and Mantineia. By 418 BCE, therefore, Orchomenos possessed a fortification circuit – but whether it encircled the whole settlement or only the acropolis is unclear.

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659 Ps.-Skylax 44; Paus. 8.3.3. The identity of Orchomenos as a polis is unquestionable. A comprehensive list of this evidence is supplied Nielsen (2002:578-81).
660 Hom. II. 2.605-08. On the prehistoric remains, see Howell (1970:81-84).
661 Hdt. 7.202, 9.28.4.
662 Thuc. 5.61.4; Diod. 12.79.2.
663 Thuc. 5.61.5.
Xenophon tells us that Orchomenos was at war with Kleitor in 378/77 BCE, but provides no specifics. Orchomenos’ animosity towards its Arkadian neighbours would manifest itself again less than a decade later. Having refused to join the Arkadian League owing to their animosity of Mantinea, the years following Leuktra saw Orchomenos allied with Sparta and Phlious. In 370 BCE, Xenophon records that the Mantineians “made an expedition against the Orchomenians [but] they came off very badly from their attack upon the city wall.” This valuable, if brief, mention of the walls is significant for it shows that in 370 BCE the city was fortified and defensible. Despite their initial misgivings, Orchomenos did eventually join the Arkadian Confederacy. Prior to the synoikism of Megalopolis, Orchomenos was still very active politically and appears to have been at the head of an organization which included the dependant poleis of Methydrion, Teuthis, and Theisoa. It remains unclear exactly how this organization functioned and “whether any of these minor poleis were conceived of as situated within Orchomenian territory.” We do know, however, that both the population and territories of these dependant poleis may have been transferred to Megalopolis during the synoikism of 370 BCE. Although the political importance of Orchomenos diminished after this point, because of its advantageous location and topographical situation, the city frequently attracted the attention of the major Macedonian powers during the Hellenistic period.

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664 Xen. Hell. 5.4.36.
665 Ibid., 6.5.13.
666 Likely in the 360s BCE (Nielsen 2002:581).
668 Paus. 8.27.4. That is, the site of Theisoa located near modern Karkalou; not to be confused with the other Arkadian Theisoa situated on Lavda hill beside modern Theisoa.
For example, during the struggle for power between Kassander and Polyperchon, Diodoros tells us that the former took Orchomenos in 315 BCE and installed a garrison. A few years later, the city was again attacked, this time by Demetrios Poliorketes. In 303 BCE, after the sack and resettlement of Sikyon, Demetrios advanced into Arkadia with eyes on Orchomenos. When the commander of the garrison refused to yield the city, Demetrios “brought up engines of war, overthrew the walls, and took the city by storm.” The final recorded event involving the fortifications of Orchomenos comes almost a century later. As paralleled at Mantineia, in 229 BCE, soon after joining the Achaean League, Orchomenos was attacked by Kleomenes of Sparta. In 223 BCE, however, Antigonos III retook the city by force from a garrison loyal to Kleomenes. Having taken the city, instead of returning it to Achaian control, Antigonos installed a garrison and stored his siege equipment there. Polybius reasons this was because the city was too important strategically as it guarded an important route into the Peloponnesian interior. After the death of Antigonos, however, the city appears to have once again reverted to the Achaians.

Like Mantineia, Orchomenos’ rich historical past and archaeological present have lured a steady stream of travelers and scholarly attention to the site over the centuries. Strabo lists Orchomenos among the other prominent Arkadian cities that no longer

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669 Diod. 19.63.5. Diodoros explains that Kassander was admitted into the city by citizens that were hostile to the son of Polyperchon, which suggests that Orchomenos itself may have been spared a siege.
670 Ibid., 20.103.5.
671 Polyb. 2.46.
672 Ibid., 2.54.
673 Ibid., 4.6.
674 Livy 32.5.
existed in his day.\textsuperscript{675} This assessment, likely an exaggeration, is contradicted by Pausanias who observed an inhabited town during the second half of the second century CE, located “below the circuit of the old wall.”\textsuperscript{676} Of interest here, Pausanias also notes that the walls of the old city on the summit were in ruins. After nearly two millennia of silence, the site was ‘rediscovered’ in the 19\textsuperscript{th} century, during the course of which, we find superficial descriptions of the remains provided by the usual suspects.\textsuperscript{677} Again, as is often the case, it is the account of Frazer at the end of the century that both represents the high-water mark for the traveling scholar and the point after which archaeological investigation comes to represent the most significant contributions to the scholarship on the site.\textsuperscript{678}

The first study with a definitive archaeological methodology was Hiller von Gaertringen and Lattermann’s \textit{Arkadische Forschungen} (1911), in which analyses of the fortifications, monuments, and inscriptions of ancient Orchomenos are presented.\textsuperscript{679} This seminal piece of scholarship was soon followed by the publication of the results of the excavations at Orchomenos conducted under the auspices of the French Archaeological School at Athens during the early part of the 20\textsuperscript{th} century.\textsuperscript{680} Other notable 20\textsuperscript{th} century archaeological works contributing to our knowledge of Orchomenos include Howell’s prehistoric survey of Arkadia and Jost’s study of the sanctuaries in the region.\textsuperscript{681}

Regarding scholarship dedicated to the fortifications of Orchomenos specifically, are two

\begin{itemize}
  \item \textsuperscript{675} Strab. 8.8.2.
  \item \textsuperscript{676} Paus. 8.13.2.
  \item \textsuperscript{677} E.g., Gell (1817:144-45); Dodwell (1819:2.426); Cramer (1828:3.306-07); Leake (1830:3.100-102); Boblaye (1836:148-50); Curtius (1851:1.219-21); Rangabé (1857:115-17); and Bursian (1862:2.203-06).
  \item \textsuperscript{678} Frazer (1898:4.224-26).
  \item \textsuperscript{679} Hiller von Gaertringen and Lattermann (1911:18-29).
  \item \textsuperscript{680} Blum and Plassart (1914). The fortifications are not mentioned in this article.
  \item \textsuperscript{681} Howell (1970:82-83); Jost (1985:113-22).
\end{itemize}
primary works, published over 50 years apart: the first was by Martin and the second by Winter.\textsuperscript{682} Although a short, yet precise overview of the city walls was provided a century ago by Hiller von Gaertringen and Lattermann, the works of Martin and Winter add valuable and considerable functional and chronological elucidation on the subject.

4.4.1 Geography and Topography

The ancient site of Orchomenos, rising above the modern village which shares its name, is located about 5 km north of the town of Levidi [Fig. 4.32].\textsuperscript{683} The remains of the

![Fig. 4.32. Topographical map of Orchomenos and surrounding territory](image)

settlement are centred on the southern slope of Kalpaki hill which, rising ca. 230 m, separates the plain of Levidi in the south from the plain of Kandyla in the north.\textsuperscript{684} The

\textsuperscript{682} Martin (1944:107-14); Winter (1989:192-96).
\textsuperscript{683} The modern village of Orchomenos was formerly Kalpaki.
\textsuperscript{684} Both of these plains were in Orchomenian territory. There is a third plain, northeast of Kalpaki hill, which is the territory of Kaphyai.
southern plain, roughly 4 km by 4.5 km, is defined by and separated from the territory of Mantineia by the Trachy Mountains to the east and southeast, and by the ridge of Anchisia to the south. The western edge of this plain is defined by the foothills of Mount Menalo, separating Orchomenian territory from that of Methydrion and Theisoa. The northern limit of the southern plain and the southwestern edge of the northern one is represented by Kalpaki hill – the site of the polis itself. This northern plain, ca. 5 km by 3 km, is limited on the north by Oligirtos, which forms a natural barrier between Orchomenos and the poleis of Pheneos and Stymphalos. While a spur from the Trachy Mountains formed the southern limit of the plain, to the east, the bulk of this mountain chain separated the chora of Orchomenos from Alean territory. Finally, although there is no natural boundary between the Kandyla plain and the plain of Kaphyai to the west, the border between the two poleis probably lay somewhere immediately to the north or northeast of Kalpaki hill.

With low wetland basins surrounded on all sides by mountains, the topographical situation of Orchomenos, as noted by Jost, “présente une structure analogue à celle de tous les États de l'Est arcadien.” And like the other eastern Arkadian states, the drainage of excess water appears to have always been a concern. As noted by several visitors to the area, the copious springs at the foot of Mount Trachy east of the city as well as the rain water and seasonal springs, all contribute to the marshy condition in parts

685 The eastern limit of the southern plain includes two narrow valleys, running east-west from the main part of the plain, formed between spurs of the Trachy Mountains. The northern one lies south of modern Palaiothyrgos, and the southern one lies north of Artemissio.
686 Hiller von Gaertringen and Lattermann (1911:19) maintain that a river formed the boundary between the two plains, and ultimately the two poleis.
687 Jost (1985:113).
of the two plains.688 Although flooding was still a concern in Pausanias’ time, the problem went back much further as evidenced by the discovery of artificial Bronze Age constructions for drainage and for the redirection of rivers.689 Despite this dam, located east of the city in the narrow pass connecting the two plains, even in Frazer’s time, “throughout the winter and as late as the end of May this part of the plain [was] still an impassable swamp.”690 Today, however, owing to the construction of a large canal running the length of the Kaphyai valley into the northern Orchomenian plain, the swamp has all but disappeared, leaving behind numerous tracts of arable land.

The site of ancient Orchomenos, as mentioned, is located on the south slope of Kalpaki hill. Although the hill itself is generally oval in shape (with its main axis oriented

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688 Rangabé (1857:115); Frazer (1898:4.224); Hiller von Gaertringen and Lattermann (1911:19); Jost (1985:114).
689 The northern plain, Pausanias (8.13.4) writes “is very considerable in extent, but the greater part of it is a lake.” See also the Hellenic Ministry of Culture: http://odysseus.culture.gr/h/3/eh352.jsp?obj_id=2634.
690 Frazer (1898:4.224).
north-south), the southern half of the hill incorporated in the fortifications is comprised of a wide, roughly sickle-shaped ridge [Fig. 4.33]. This hill, moreover, while lofty and steep in places – especially the eastern half – possesses no precipitous gradients. The eastern slope of the hill is separated from the Trachy Mountains by a narrow defile, less than 500 m wide. On the western side, Kalpaki hill is joined by a small saddle to an adjacent hill. The city of Orchomenos, consequently, occupied a strong and advantageous position, from which it was able to command not only the plains comprising its *chora*, but also what must have been several major Arkadian roads. For example, the valley of Orchomenos controlled access to central Arkadia from Achaia via Pheneos in the north and from the Corinthia via Stymphalos in the northeast. Internally, Orchomenos stood between Kleitor and Mantinea (and Tegea beyond) and between Alea (and the Argolid) and the *poleis* of central Arkadia. In this light, the attention the city received from the major powers during the Hellenistic period because of its advantageous location is hardly surprising.

### 4.4.2 The Fortifications

The fortifications of Orchomenos are poorly preserved and the parts of the circuit that do remain are largely overgrown. Still, there are some extant sections which are visible. Frazer’s description of the remains as “considerable but scattered,”\(^{691}\) perhaps provides the most accurate picture. Furthermore, although today the city wall is not uninterrupted, the plan provided by Blum and Plassart provides a reliable guide to both

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\(^{691}\) Frazer (1898:4.225).
the extant remains and the original trace [Fig. 4.34].\textsuperscript{692} The layout of the circuit roughly – although not exactly – mirrors the natural contours of the south side of Kalpaki hill.

As a result, the trace is similarly sickle-shaped, enclosing both the highest part of the hill and the most moderately sloped part of the hill below. While the southern and eastern curtains follow the course dictated by the natural contours of the hill, the western and

\textsuperscript{692} Blum and Plassart (1914: plate III).
northern parts of the wall do not. Instead of curving to the contour of the hill, the western curtain, representing the lowest part of the trace, runs in a straight line. Accordingly, while the north and south ends of this section are at roughly the same elevation, the middle section of the wall actually climbs several meters up the hill. Similarly, in order to link the north end of the western curtain to the top of the hill, the line of the north curtain does not follow the contours of the hill, but rises steeply from west to east. In total, the walls run for a length of 2.30 km and enclose an area of ca. 20 ha.\(^{693}\)

The fortifications of Orchomenos, being confined to the upper portion of Kalpaki hill, are of the acropolis type.\(^{694}\) While the surviving height and consistency of the extant stone portions of the circuit suggest unequivocally that they once held a mudbrick superstructure, categorizing the masonry style is less straightforward. While the early travelers were rarely able to agree in their terminology,\(^{695}\) some of the more recent works skirt the subject completely.\(^{696}\) In the appendix of various Greek walls, Scranton – assumingly based on photos only – categorizes the walls as quarry-faced isodomic trapezoidal.\(^{697}\) On the basis of personal observation, I believe Scranton is essentially correct, although the surface treatment appears to me to be pointed-face.\(^{698}\) That is not to say, however, that other parts of the circuit were constructed in a different masonry


\(^{694}\) On the location of the urban settlement, see below section 4.4.4.

\(^{695}\) For example, Dodwell (1819:2.426) maintains the walls resembled a “rough Tirynthian style;” similarly, Curtius (1851:220) observed that “das Gemäuer hat an manchen Punkten den Charakter eines tirythischen Cykloopenbaus;” Leake (1830:3.101) says the walls of Orchomenos had the “appearances of a remote antiquity;” and Frazer (1898:4.225) that the were coursed and “on the whole quadrangular.”

\(^{696}\) Winter (1989:192-96) discusses the chronology of the circuit without once referring to the specific masonry style(s).

\(^{697}\) Scranton (1941:171).

\(^{698}\) I can only attest to observing parts of the comparatively well-preserved southern trace.
Immediately southwest of Orchomenos on the lower slopes of Mount Trachy is a conspicuous horse-shoe-shaped cutting of significant dimensions [Fig. 4.35]. This depression represents a likely candidate for the source from which the limestone blocks of the socle were quarried. Owing to the condition of the extant remains, of the curtains themselves, little can be said with certainty. On the southeast side of the hill, Frazer observed a stretch of the curtains’ socle that survived for a length of 18 m to 27 m and to a height of ca. 2.30 m. Although Hiller von Gaertringen and Lattermann also lamented at the curtain’s generally poor state of preservation, they were able to establish a thickness of 2.42 m between the faces for a part of the northern trace. When the thick outer and inner faces are added to this number, the total curtain thickness would approach 4 m. Finally, Hiller von Gaertringen and Lattermann also observed a 250 m section of

Fig. 4.35. Possible quarry site on adjacent slope of Mt. Trachy (facing SE)

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699 Frazer (1898:4.226), for example, observed on the southeast side of the hill, a “wall built in a quite different and much more irregular style, with rather loose joints and with some polygonal blocks in the courses.” Borrelli (1976:653) maintains that the whole wall was of polygonal masonry.

700 Frazer (1898:4.226).

701 Hiller von Gaertringen and Lattermann (1911:20, 28).
A handful of towers comprise the best preserved remnants of all the extant remains at Orchomenos. Although during his travels Frazer counted 15 towers, subsequent, more detailed, investigations revealed the number of towers in the circuit to be twice that amount. These towers, distributed fairly regularly throughout the circuit, are on average 6.50 m wide across the front and jump some 4 m from the walls. It appears that the towers in the steeper northern and eastern parts of the hill are generally smaller and more widely spaced than those located in the western and southern parts of the circuit, where the gradient of the hill is gentler. Tower 7 is especially well-preserved and illustrates that in their construction, the towers exhibit the same principle of isodomic trapezoidal construction as the curtain foundation [Fig. 4.36]. Also very well-preserved are the remains of a sizable tower on the highest point of the summit. The use of small stones, and reused roof-tiles and brick, bonded together by the liberal use of mortar, initially suggests a medieval date for the structure. As observed by Rangabé, however, although the superstructure of this tower is certainly of a later date, it is “reposant sur des fondations helléniques.” Indeed, the original foundations of the structure are still clearly visible today [Fig. 4.37].

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702 Ibid., (1911:29).
703 Frazer (1898:4.225); Hiller von Gaertringen and Lattermann (1911:20).
704 Measurements and tower labels are after Gaertringen and Lattermann (1911:28). As the 39th Ephorate of Prehistoric and Classical Antiquities claims to be currently working on the site, I was not granted a study permit for Orchomenos. Unless otherwise cited, all photographs are based on personal observation from my visits to the site in the fall of 2009 and winter of 2010.
705 Rangabé (1857:115).
Finally, as there is no evidence of posterns or outworks, it remains only to mention something of the gates. In all of the published primary literature about the site, the existence of gates in the Orchomenian circuit is mentioned by only two sources. Comparing the circuit to that of Tiryns, Curtius remarks, “Zusammenhängendere Spuren eines alten, von Thoren durchbrochenen, Mauerringes aber findet man erst nahe unter dem breiten Gipfel des Berges.” Whether this statement is based on intuition or personal observation is unclear. In either case, no further information is provided as to the location of the gates. Fortunately, Hiller von Gaertringen and Lattermann help to fill in the picture. Although their description is only slightly less ambiguous than Curtius’, they do maintain the existence of two gates. The first, as is clear on the plan (see Fig. 4.34), is located on the west corner of the circuit, at the point across from the adjacent saddle where the wall turns northeast and rises up the hill. This gate appears to be of the overlap type flanked by a protecting tower on the attacker’s left. The location of the second gate is less clear, and is only described by Hiller von Gaertringen and Lattermann as

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706 Curtius (1851:1.220).
708 I could observe no trace of the gate when I visited the site. The following description is based on the plan alone.
being in the southeast corner, at the end of the shortest path to the village of Kalpakí below.\textsuperscript{709} If that path is the same that exists today, then the likeliest candidate for this gate is the area immediately north of Tower 7, where the southern curtain turns north.

4.4.3 Strategy, Tactics, and Defensive Planning

The overall defensive strategy inherent in the choice of Kalpakí hill for a fortified acropolis is obvious. Its geographic location not only ensured command of the two well watered plains comprising its \textit{chora}, but was also ideally situated to dominate the network of major roads which undoubtedly traversed its territory. Moreover, both the roads and the plains were safeguarded by the unparalleled viewshed afforded by the lofty heights of this hill [Figs. 4.38 and 4.39]. Besides its valuable elevation, the topography of the hill itself – with steep terrain on three sides – contributes significantly to its natural defensibility. The fortification circuit both complemented the advantageous topography of the site and enhanced its already strong position by providing security to the more vulnerable southern part of the hill. Although by its very nature as an acropolis-type circuit, this fortified hill would have functioned as a place of refuge during times of danger, that it enclosed the city’s agora, theatre, and at least one temple, demonstrates that it was also the monumental civic centre of Orchomenos.\textsuperscript{710} That the fortified acropolis be easily accessible to the citizens, yet readily defendable against enemies was, therefore, a primary and crucial strategic concern.

\textsuperscript{709} Gaertringen and Lattermann (1911:20).

\textsuperscript{710} Although the enclosed area was considerable, to date no evidence of an urban settlement has been discovered on the acropolis.
The layout of the fortification and the placement of its constituent parts reflect an attempt to compensate for the inherent weaknesses of the site – specifically, the comparably low-lying southern and western parts of the hill. Indeed, the topography of the hill was such that if an attack was to be launched on the walls of Orchomenos, it would be from either (or both) of these directions. The western part of the hill was especially vulnerable as it was accessible by an adjacent saddle (see Fig. 4.39). Although narrow, the elevation of this strip of land, if held by an enemy, represented a threat to the security of the western side of the circuit. Accordingly, we see on the west side not only
the longest stretch of the circuit, but the greatest concentration of towers. Furthermore, instead of following the contour of the hill and extending westward in a shallow, but level arc, the architects constructed this stretch of the walls in a straight line. Consequently, like a flattened arch, the middle of this wall rises up the slopes with its point of greatest elevation, located roughly in the middle of the stretch, ca. 20 m higher than its terminal ends. In the southern section of the circuit, we see the same compensation but manifested in a different arrangement. While the west half of this section follows the convex contour of that part of the hill, the eastern portion of the southern trace exhibits the opposite pattern. Here, the wall changes to follow a concave course up the hillside. Such a course not only added ca. 10 m in elevation at the middle of the wall, but its inward curve afforded all four of its towers a field of fire in which to defend an approach from this direction. Finally, the stretch of wall extending from the southwest tower, and, if the plan is to be believed, what appears to be a similar one continuing from near the southeast tower, were further measures of protection to safeguard both the lower city and the citizens’ access to their acropolis.

4.4.4 Chronology

Establishing a chronology for the fortifications at Orchomenos is complicated by both the preservation of the remains and their recorded history during the Classical and Hellenistic periods, and it is not surprising that scholars have been unable to reach a consensus on an exact date. At the same time, however, employing these two elements is essential in any attempt to date the walls. What we do know, based on the historical

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711 One third of all the towers in the entire circuit are located along the western side.
sources, can be briefly summarized. In 418 BCE Orchomenos possessed a walled city (or acropolis) but the fortifications were deemed inadequate by its inhabitants. In 370 BCE, the Mantineians were repelled by the fortifications at Orchomenos, so the circuit must have been stronger and more defensible than previously. In 315 BCE, Kassander took the city, having been admitted without an attack on the walls. In 303 BCE, Demetrios demolished part of the circuit and took the city by force. Finally, in 223 BCE, Antigonus took the city from a garrison loyal to Kleomenes. From these scattered historical references and the remains themselves, several authorities maintain that a reliable chronological history of the walls can be ascertained.

Martin argues that this evidence suggests three chronological phases of construction for the Orchomenian circuit. Briefly, that the city possessed very weak defenses in 419 BCE; that the fortifications were improved as part of Spartan policy between ca. 380 and 370 BCE; and that following the Demetrios’ siege and the resultant capitulation, the city walls were repaired and strengthened sometime in the early third century BCE. Moreover, he felt that these chronological phases are consistent with the extant remains of the wall, in which he perceived different periods of construction. Of course the main weakness of this argument, as pointed out by Winter, is “that differences in masonry style often occur, for a variety of reasons, in contemporary portions of a

713 Thuc. 5.61.4; Diod. 12.79.2.
714 Xen. Hell. 6.5.13.
715 Diod. 19.63.5.
716 Ibid., 20.103.5.
717 Polyb. 2.54.
719 Martin (1944:114).
single circuit and do not necessarily indicate a difference in date.\textsuperscript{720} Meyer, on the other hand, is perhaps on firmer ground in arguing that the absence of early remains within the enclosed area of hill is evidence that the fifth century BCE settlement was, in fact, located at the foot of the hill.\textsuperscript{721} For this reason, Meyer maintains that the extant walls of acropolis belong to one phase – built ca. 360-50 BCE when the city was moved higher up the hill for reasons of security.\textsuperscript{722} Although Meyer’s placement of the fifth century city at the foot of the hill is reconcilable with the recorded account of the inhabitants’ concern for the weakness of their walls in 418 BCE,\textsuperscript{723} it does not explain the events of 370 BCE. Specifically, if the city was not properly fortified until ca. 360-50 BCE, how could the fortifications have been successful in holding back the Mantineians, who Xenophon records, “came off very badly from their attack upon the city wall,”\textsuperscript{724} in 370 BCE?

It is Winter who makes the strongest (albeit not entirely convincing) argument concerning the date of the Orchomenian circuit. Subscribing to Meyer’s opinion about the location of the fifth century BCE town, Winter proceeds to argue the reasons for a fourth century BCE date for the hilltop circuit. As the towers are generally too small to have housed heavier caliber torsion machines, he is undoubtedly correct in his assertion that the fortifications are “more typical of the period before the general use of defensive artillery.”\textsuperscript{725} Furthermore, although he notes some similarities between the tower dimensions and spacing of the southern half of the circuit and those of Mantinea, he

\textsuperscript{721} Meyer (1939b:893). That is, in roughly the same location as the modern village of Orchomenos.
\textsuperscript{723} That is, if Orchomenos had a fortified acropolis in 418 BCE, then their concern “would have been incomprehensible, especially in terms of fifth-century siegecraft” (Winter 1989:195).
\textsuperscript{724} Xen. \textit{Hell.} 6.5.13.
\textsuperscript{725} Winter (1989:195).
maintains that the system at Orchomenos “seems to be somewhat later than that of Mantinea.” To answer the obvious question of how much later, Winter attempts to narrow the date down further by incorporating the evidence provided by the other architectural elements of the intramural area. For example, because the theatre was provided with a proskenion from the very beginning, Winter believes it is unlikely to be earlier than ca. 300 BCE. He also points to the “Hellenistic appearance of the agora and the overall town-plan” as suggestive of a late Classical or early Hellenistic date.

Winter is again certainly right in his assertion that once the hilltop was chosen for the site then the walls would have been built as quickly as possible. He adds that after the walls had been constructed, then “it would of course have been necessary to construct new private houses and public buildings [and last, to build] ‘embellishments’ such as the theatre.” When the system of the walls and the intramural architecture are taken together, Winter proposes that following the conception of the town plan ca. 350 BCE, the “city walls, agora and other public buildings, and theatre, [were] built in that order over the next 40-50 years.”

While the logic behind such an argument is sound, it is not without its flaws. Not least of all, is Winter’s suggestion of a town plan and private houses. Unless he is speaking abstractly – in the sense that every town has a plan – attempting to reconcile the scanty remains of the site with any semblance of an organized schematic is an exercise in futility. With the exception of the buildings of the agora, there are no hints (orthogonal

728 Ibid.
729 Ibid.
730 Ibid.
outlines or otherwise), to suggest a conceived town plan for Orchomenos. Moreover, as mentioned above, there is no evidence at all of private houses within the intramural area. This immediately suggests that the residential area of the settlement remained at the foot of the hill – where it had been in the fifth century BCE, where it was when Pausanias visited the site in the second century CE, and where it remains today.

The fact that the theatre was not built until ca. 300 BCE means little in the context of a functioning acropolis and means even less when employed as a chronological marker for the dates of the wall. In other words, I do not doubt Winter’s assertion that the theatre was built after the walls, but that in no way negates the use of the hill as a refuge at any time before that, walled or not. His argument that the walls must have preceded the construction of the agora is not inconceivable. Still suggesting a late fourth century BCE date for its construction because it has a Hellenistic appearance is less conceivable. The agora at Megalopolis, for example, is truly of the Ionic form and considerably more Hellenistic in its appearance than that of Orchomenos. But the layout of that agora there was likely conceived with the foundation of the city, planned in ca. 370 BCE, even if the main buildings were not constructed until around the middle of the century.

Returning to the fortifications, Winter states that “the Orchomenian system should probably be dated not earlier than 350 B.C. nor later than ca. 325 B.C.”731 While the evidence outlined above is given for why the walls should be later than 350 BCE, he does not provide any reasons why the walls cannot be earlier than that date. In other words, besides mentioning that the walls of Mantinea and Orchomenos cannot be as close in date as Meyer suggested, and that the system at Orchomenos is hardly more advanced

than that of Mantineia, Winter does entertain the idea that the walls of Orchomenos may predate 350 BCE. Again we have to return to the words of Xenophon and the role the fortifications played in repelling the Mantineians in 370 BCE. This documentation presents three chronological scenarios concerning the *terminus post quem* for the fortifications of Orchomenos: the Mantineians were unsuccessful because (1) the ‘weak’ walls of the lower city of 418 BCE were strengthened sometime before 370 BCE; (2) the walls of the acropolis were thrown up ca. 380-70 BCE as Martin suggests; or (3) the acropolis was fortified ca. 350-25 BCE as Winter maintains. The first scenario seems the most unlikely. If the defenses of the lower city existed and were sufficient to repel an enemy in 370 BCE, why then abandon them and build a completely new circuit on the acropolis?\(^{732}\) Ultimately I believe that the answer lies in the combination of the second and third options. Winter presents an accurate analysis of the general character of wall and makes a strong case for their existence in the third quarter of the fourth century BCE. Nonetheless, there is nothing about the Orchomenian system that would preclude a date in the 370s BCE for its construction. Furthermore, the existence of a fortified and defensible system before 370 BCE is also reconcilable with the account of Xenophon. In the end, therefore, I would push Winter’s date for the construction of the fortification back a quarter of a century to ca. 375-25 BCE.

\(^{732}\) Moreover, they would have likely left some trace in the archaeological record.
Chapter 5: The Fortified Poleis of Northern Arkadia

This chapter surveys the fortified poleis located in northern Arkadia on an individual basis, including the sites of ancient Pheneos, Stymphalos, Kleitor, Psophis, and Paos. After establishing that these settlements were indeed poleis, and reviewing all previous scholarship on the sites, the fortification circuit of each polis is explored through the local history, the geographical and topographical setting, the architectural components of the fortifications themselves, and finally, the strategy, tactics, and overall defensive planning inherent in their construction. Based an understanding of all of these factors, including historical probability, a chronology of construction for each site in question is then provided.

5.1 Ancient Pheneos

Although no Archaic or Classical period sources specifically identify Pheneos as a polis, few would doubt its identity as such.\textsuperscript{733} In the fifth century BCE, for example, the settlement began striking its own coinage bearing the city-ethnic\textsuperscript{734} and dedicated a statue of Hermes at Olympia in the city’s name.\textsuperscript{735} In the fourth century BCE, the city could boast an Olympic victor,\textsuperscript{736} an Argive theorodokos,\textsuperscript{737} and a citizen who was granted Argive proxenia.\textsuperscript{738} The problem of securely ascertaining a polis identity for the settlement is exacerbated by the fact that – as is the case with so many minor Arkadian

\textsuperscript{733} Polybius (2.52) provides the earliest surviving written reference to Pheneos as being a polis.
\textsuperscript{734} Head (1963:452).
\textsuperscript{735} Paus. 5.27.8.
\textsuperscript{736} Neolaidas of Pheneos (Olympionikai no. 380).
\textsuperscript{737} Nielsen (2002:586).
\textsuperscript{738} SEG 30 356.
poleis – Pheneos is infrequently mentioned in the surviving historical accounts. When the ancient historians and geographers did have cause to refer to the settlement, it was usually in regard to one of two factors: its proximity to the River Styx or its capture by Kleomenes in his struggles against the Achaian League in 225 BCE. Indeed, despite its strategic location on a major route between Arkadia and Achaia, between the time of Pausanias and the visit by Leake and Dodwell, “the little valley [of Pheneos] has been without an historian.” The reason, as suggested by Baker-Penoyre, can be explained with regards to both the geographic isolation of the settlement and the valley’s tendency to periodic devastation by floods and earthquakes. Combined with the fact that the natural battlefields of the Peloponnese lie in the plains to the south, this may have made and kept Pheneos a small and isolated community throughout antiquity.

Strabo’s mention of Pheneos as being among the Arkadian cities that no longer existed in his time did not prevent Pausanias from including a stop to the area in his itinerary of Arkadia. With a deep-rooted mythological past and numerous sanctuaries, Pheneos had a lot to offer the Periegete and consequently, he devotes a considerable amount of text to his description of the area. Somewhat surprisingly and of interest for the present purposes, Pausanias deviates from his distinctive tendency of habitually recording sacred architecture and provides us with the first written account of the defensive architecture of the city. Of the settlement he writes that the “acropolis is precipitous on all sides, mostly so naturally, but a few parts have been artificially

739 For a comprehensive inventory of the evidence, see Nielsen (2002:585-86).
740 E.g., Polyb. 2.52; Liv. 28.7.16; Plut. Arat. 39.3; Plut. Cleom. 17.3.
741 Baker-Penoyre (1902:236).
742 Ibid., (1902:235).
743 Strab. 8.8.2; Paus. 8.14-15.8.
strengthened, to make it more secure.”\textsuperscript{744} Since the acropolis of Pheneos is relatively small and nowhere can be said to be precipitous (although it is steep in places), Pausanias’ statement has raised more questions than answers.

In order to reconcile this apparent discrepancy, Leake was the first to suggest that the ancient acropolis was likely separate from the lower city which may or may not have been fortified.\textsuperscript{745} Leake’s publication was preceded by those of Gell and Dodwell, both of whom were more interested in describing the post-antique remains on the mountain north of Pheneos than the ancient site itself.\textsuperscript{746} Leake’s account was followed by Boblaye’s description some six years later. Besides providing the interesting hypothesis that rising silt levels caused by the valley floods are responsible for transforming the once precipitous slopes of the acropolis to its more rounded present condition, his description of the site is otherwise unremarkable.\textsuperscript{747}

Rounding off the 19th century scholarly interest in ancient Pheneos are the accounts provided by Curtius, Rangabé, Clark, and Bursian.\textsuperscript{748} Although all of the descriptions supplied by these authors focus on the fortifications – since sections of the city wall have remained the only visible extant remains at the site – there is little consensus in the particulars. The end of the 19th and beginning of the 20th century witnessed a continued interest in ancient Pheneos, once again, perhaps best exemplified by the work of Frazer.\textsuperscript{749} While his description of this site is brief compared to the treatment given to other sites, Frazer not only provided the most detailed picture of the

\textsuperscript{744} Paus. 8.14.4.
\textsuperscript{745} Leake (1830:3.140).
\textsuperscript{746} Gell (1817:151-52); Dodwell (1819:2.437-38).
\textsuperscript{747} Boblaye (1836:153).
\textsuperscript{748} Curtius (1851:1.190-91); Rangabé (1857:56-58); Clark (1858:318); Bursian (1862:2.200).
\textsuperscript{749} Frazer (1898:4.235-36).
surviving fortifications up to and including his time, but the most detailed picture that exists to the present day.

In 1902 Baker-Penoyre published the first article devoted specifically to Pheneos. Although well-researched and well-written, this work is concerned more with the hydraulic properties of the valley that had interested the ancients so much and less with the archaeological history of the site itself. Furthermore, with the exception of Bölte’s thorough entry in the *Realencyclopädie der Classischen Altertumswissenschaft* and Howell’s brief mention of the site in his Arkadian survey, little published work on Pheneos appeared in the years on either side of the mid-20th century. Toward the end of the century, however, starting with the work on Arkadian sanctuaries by Jost and culminating in the volume *Pheneos und Lousi: Untersuchungen zu Geschichte und Topographie Nordostarkadiens* (1999) edited by Tausend, Pheneos was once again brought to the attention of Classical scholarship.

### 5.1.1 Geography and Topography

The acropolis of ancient Pheneos embraces a conical, crescent-shaped hill, situated on the northern edge of a large plain [Fig. 5.1]. The hill itself is relatively small and unassuming, measuring 450 m by 350 m and rising from the plain to a height of only around 60 m [Fig. 5.2]. The height of the hill is not uniform, but distributed differently

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750 Baker-Penoyre (1902).
753 The exception being the brief summaries of the archaeological work conducted by Protonotariou between 1958 and 1964. See below section 5.1.2.
755 Tausend (1999a).
over three sections.\textsuperscript{756} The highest part is located in the centre of the crescent (northwest part of hill), with the lower areas to the south and east.\textsuperscript{757}

\textsuperscript{756} Howell (1970:97) refers to these sections as three different hills.

\textsuperscript{757} The highest section of the hill is fairly steep on all sides (especially to the north and west) and while it is not precipitous, it is the only part of the acropolis that is in any way reconcilable with Pausanias’ description.
The northwest part of the acropolis is comprised of a rounded knoll, which is considerably higher than the flatter and lower eastern section. This eastern section of the hill, on the other hand, is comprised of a flat plateau, longer than it is wide, and is oriented east-west.\textsuperscript{758} Overall, the hill slopes gradually on its south sides, as well as on the northeast. The slopes around the high northwest section are fairly precipitous and may not have been fortified. Overall, the small size of the hill suggests that this was the acropolis only and that the lower city of Pheneos was located at its base. Although no remains of the lower city have been discovered, its approximate location can be inferred with some certainty.

The acropolis is separated from the hills to the north by a narrow plain about 300 m wide, which could accommodate a small settlement. Placing the lower city in this area, however, is unlikely. Not only would the high ground to the north negate any defensive advantage afforded by a fortified acropolis, but a lower city to the north would not even have been visible from the southern part of the hill. In this case, the middle and highest part of the acropolis would have blocked any visual communication between the city and the southern part of the hill, defeating the purpose of a fortified acropolis. Furthermore, the only excavated structure at Pheneos – a sanctuary to Asklepios – is located at the southeastern foot of the acropolis. It is difficult to comprehend why a sanctuary here would be placed outside the walls at the extreme opposite end of the settlement. Instead, the location of this sanctuary and the topography of the hill itself suggest that the lower city was south of the acropolis [Fig. 5.3]. In this scenario, the sanctuary is firmly included in the settlement and all parts of the city would be visible from all parts of the acropolis.

\textsuperscript{758} Although Clark (1858:318) maintains that the eastern section of the hill was artificially terraced, it is not clear if this is true.
Finally, the ascent to the acropolis is most easily accomplished from the south where the terrain is less steep – an important consideration for the defensive needs of a population with a separately fortified acropolis.

Fig. 5.3. Topographical map of Pheneos and proposed location of lower city

The territory of Pheneos is considerable, by some estimates encompassing as much as 345 km².759 The bulk of this territory is comprised of the large plain located south of the city, the maximum dimensions of which measure approximately 14 km north to south by 8 km east to west.760 The plain of Pheneos represents the epitome of the Arkadian valley basin. It is defined by three of the largest mountains in the Peloponnese, which, with their subsidiary ranges, also serve as the boundaries between Pheneos and the territories of the surrounding poleis and regions. Mt. Kyllene on the east and northeast separates Pheneos from the territory of Stymphalos; Mt. Oligyrtos on the south

759 As noted by Nielsen (2002:585), this figure includes the territory of Nonakris to the northwest, which is thought to have been a dependant polis of Pheneos. For Nonakris, see Appendix II.
760 Baker-Penoyre (1902:228) quite correctly describes the shape of the plain as resembling a “miniature African continent.”
from that of Orchomenos and Kaphyai; and Mt. Chelmos to the west from that of Kleitor and to the north from that of Achaia.

The other characteristic of the typical Arkadian basin is the drainage of water by *katavothroi*. Indeed, as in many Arkadian valleys, Pheneos had to contend with an excess rather than deficiency of water. As well as seasonal streams formed by melting snow and rain, the main sources of water are the Phoniatiko River (called in antiquity the Aroanios) and the Doxas River. These rivers originate north of the valley, converge just south of the ancient city, and empty into a *katavothros* on the southwest edge of the plain.761 A third stream, smaller than those mentioned above, originating near ancient Kaphyai, enters the southern part of the plain through the Guioza gorge, before reaching another *katavothros* on the southeast edge of the plain, opposite the modern village of Achladies.762 In the 2,000 years of recorded history – and almost certainly longer – all of these water sources were responsible at different times and in different ways for the alteration from lake to plain in the Pheneos valley. During much of the 19th century, for example, the acropolis of Pheneos was surrounded by water, resembling “a peninsula jutting into the lake.”763 At the end of the century, moreover, Frazer tells us that the lake surrounding the acropolis had disappeared, having formed around the southeast *katavothros* at the extreme southern end of the valley.764 Finally, only a few short years later, on a visit in 1901, Baker-

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761 This river continues underground and is believed to be the source of the Ladon River (Baker-Penoyre 1902:230-31).
762 Although the underground course of this stream is uncertain, Baker-Penoyre (1902:231) maintains that it may be linked to the larger hydraulic system of Lake Stymphalos.
763 Frazer (1898:4.235). Eg., Boblaye (1836:153); Curtius (1851:1.191); Clark (1858:318); Rangabé (1857:56).
764 Frazer (1898:4.235).
Penoyre observed that the lake was nearly gone.\textsuperscript{765} Today, although some of the lower areas of the plain are seasonably marshy, the lake has not returned.\textsuperscript{766}

5.1.2 The Fortifications

Despite initial interest in the site, as evidenced by a steady stream of travelers throughout the 19\textsuperscript{th} century, it was not until the middle of the 20\textsuperscript{th} century that ancient Pheneos finally became the focus of dedicated archaeological research. Between 1958 and 1964, a Greek team under the direction of Protonotariou, the head Ephorate in Nafplion, carried out a series of excavations at the site.\textsuperscript{767} Although most of their later efforts would be devoted to clearing the Asklepieion discovered at the foot of the southern slope on its east end, their initial excavations were focused on exposing a part of the fortification circuit. In fact, their interest in the Asklepieion at the expense of the circuit walls is reflected in the comments of Daux, who, in his report on the archaeological work in Greece for the year 1958, summarizes the Greeks’ work on the walls at Pheneos; he writes simply, “une partie de l’enceinte polygonale de l’Acropole a été dégagée.”\textsuperscript{768} Another half century would pass before Pheneos – and its fortifications – would again be the object of archaeological research. In 2008, the Greek Archaeological Service once again turned their attention to Pheneos, and began a project of clearing the fortification wall on the eastern half along the north side of the acropolis.\textsuperscript{769} By combining observation of the now exposed extant remains with the limited literary

\textsuperscript{765} Baker-Penoyre (1902:228).
\textsuperscript{766} So was the case when I visited the site in the spring of 2010.
\textsuperscript{767} Erath (1999:187).
\textsuperscript{768} Daux (1959:625). For summaries of the findings during this period, see Protonotariou-Deilaki (1961-62; 1965).
\textsuperscript{769} Consequently, I was not granted a study permit for this site. All subsequent measurements and plans, therefore, although based on personal observation, are admittedly approximate.
references left to us by early travelers, a tentative picture of the fortifications of Pheneos as they originally existed is possible.

The foundations of all the towers and most of the curtain in the area cleared by the Greek Archaeological Service are clear enough, and in places are fairly well-preserved to several courses. Some areas, however, especially in the easternmost part of this cleared section, are the poorest preserved. Having suffered the effects of erosion, many blocks
The extant sections of the circuit are of limestone (presumably extracted locally) and constructed in the coursed polygonal style [Fig. 5.4]. In fact, so fine is the coursing and shaping of the blocks that several sections tend more toward coursed trapezoidal than polygonal [Fig. 5.5]. The generally uniformly preserved height of the foundations suggest they once supported a mudbrick superstructure [Fig. 5.6]. Moreover, the surface treatment of most of the blocks appears to be quarry-faced, having received no substantial working beyond that resulting from their removal from the quarry. Finally, not surprisingly, the curtains of the wall consist of an inner and outer face of blocks between which a mix of rubble was added for strength and cohesion [Fig. 5.7]. In total, the curtain appears to be approximately 3 m in width.

As mentioned above, with the lower city likely located to the south of the hill, the walls of Pheneos certainly defined a separately fortified acropolis-type of circuit. Although only the northeast part of the circuit is visible today, the literary evidence suggests that these walls once encircled the whole hill. Both Frazer and Bursian, for example, observed remains of fortifications on the northwest and west side of the hill. Frazer specifically notes the presence of a rectangular tower here, demonstrating that this stretch was not simply a retaining wall but a defensive one. If Pausanias is to be trusted, and the defense of sections of the acropolis were dictated by the natural terrain and not walls, then these parts are likely to be found in this northwest and/or west section of the

770 Some of the limestone employed appears to be of a generally poor quality, and has suffered the effects of time and the environment accordingly.
771 This is the general consensus of most of the scholars, including Frazer (1898: 4.235), Curtius (1851:1.191), Bursian (1862:2.200), Protonotariou-Deilaki (1961-62:57), Howell (1970:97), and Scranton (1941:166). The only exception is Rangabé (1857:56), who says the walls are Cyclopean.
772 Frazer (1898:4.235); Bursian (1862:2.200).
hill where the topography is most advantageous to such. Furthermore, in his description of the site, Rangabé tells us that he observed “les restes d’un mur...flanqué de tours...sur la pente méridionale de ce mamelon.” From the archaeological and literary records, therefore, it is clear that the acropolis of Pheneos was fortified on its north, west, and south sides. Although there is no evidence of a circuit for the southeast and east sides, because this was the most vulnerable part of the hill owing to its gentle terrain, it can be assumed with a fair degree of certainty that a wall did indeed once exist here, completing the acropolis circuit.

![Fig. 5.8. Plan of Pheneos' fortifications visible on northeast side of acropolis](image)

The existing remains lie on the north side near the top of the eastern section of the hill. The foundations for most of this section appear to have been constructed on a small terrace built for this purpose. It is only a little wider than the trace itself, and has the double advantage of both increasing the height of the wall as well as providing a relatively flat surface for their construction and maintenance. This cleared section of the circuit consists of essentially two main parts: an eastern and western arm which converge

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773 In their description of this area, neither Frazer nor Bursian report a continuous stretch of walls. This leaves open the possibility that parts of the hill around the steep northwest knoll were perhaps left unfortified.

774 Rangabé (1857:56).
at a 90° angle [Fig. 5.8]. The eastern stretch of wall includes four curvilinear towers and a slight bend (ca. 30°) about halfway along. The western stretch, by contrast, runs straight and contains one semicircular tower and two rectangular towers. Both the eastern and western sections of the circuit follow the general contours of the hill, generally rising in altitude from east to west.

Fig. 5.9. Surviving number of courses in a) Tower 2, and b) Tower 3 (facing E)

As mentioned, the towers in the eastern section of the trace are all curvilinear. Towers 1, 2, and 3 are roughly similar in their dimensions, with a diameter of 6 to 8 m, and relatively evenly spaced around 30 m (Tower 2 marking the spot where this part of the circuit changes direction slightly towards the southwest). These towers and the curtains between them differ considerably in their preservation, varying between one and four surviving courses [Fig. 5.9]. Tower 4 represents the terminus of the eastern stretch of the circuit and its circular shape serves to provide additional coverage to both the western section and the 90° angle where they meet. The western arm of the circuit contains only one semicircular tower at the extreme west end of the cleared section. Although somewhat better preserved (see Fig. 5.5), Tower 7 is otherwise similar in its general construction and dimensions to those on the east.
The eclectic mix of tower types, sizes, and spacing in the west section is its most interesting feature. To the east of Tower 7 is a rectangular tower (Tower 6), followed by another, albeit considerably larger, rectangular tower (Tower 5). Tower 6 is comparable in overall size to the curvilinear examples, measuring approximately 5 m in width and projecting about 4 m from the curtain [Fig. 5.10]. Tower 5, on the other hand, is twice the size of Tower 6, measuring 6 m across and projecting some 11 m from the curtain [Fig. 5.11]. The spacing between these three towers is telling and may provide a clue as to their relative chronology. For example, the distance between the semicircular Tower 7 and where the wall turns 90º is roughly 30 m. This is in keeping with the general pattern of tower spacing that exists on the eastern section of the walls, and may suggest that it was part of the original building program. The construction of Tower 6 (ca. 15 m east of Tower 7) may also be of the same program, having been built to decrease the distance between Tower 7 and Tower 4. Conversely, the much larger Tower 5 seems to be the youngest architectural member on this part of the wall and its size suggests it belongs to the second generation of artillery towers.775 It is not hard to imagine that Tower 6, having been impaired by fire or earthquake, was abandoned and instead of rebuilding it, the

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775 This idea is discussed in more detail below with regards to chronology in section 5.1.4.
military architects decided to kill two birds with one stone and built a tower capable both of housing the more powerful torsion machines and providing greater security to the surrounding stretches of wall.

For information on the rest of the acropolis fortifications that are overgrown or otherwise no longer visible, we are forced to rely on the testimony of others. Leake tells us that on the side of the hill towards the modern village of Pheneos [i.e., on the northwest] he observed “some pieces of the walls with square and round towers.” Curtius too is no more specific, mentioning the same circular and rectangular towers facing the modern village. Clark is somewhat more helpful, having observed three rectangular towers, one of which he estimated to be about 4.50 m x 4.50 m. By the time Frazer visited the site only one rectangular tower was visible, but he was able to trace two sizable lengths of curtain on the northwest and west sides which he determined were 18-27 m long and 25 m long respectively.

5.1.3 Strategy, Tactics, and Defensive Planning

Geographically, the small hill of Pheneos is one of the few locations in the valley suitable for a natural acropolis. As the plain is bordered on all sides by rather steep slopes, few other candidates immediately suggest themselves. Although today several villages line the eastern edge of the plain on the lower slopes of Mt. Kylene, since most of these lie in the narrow northeast corridor leading toward Achaia they are poorly positioned to command the bulk of the great plain to the south [Fig. 5.12].

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776 Leake (1830:3.117).
777 Curtius (1851:1.191).
778 Clark (1858:318). If accurate, the dimensions of this tower are remarkably close to Tower 6.
779 Frazer (1898:4.235). It is not surprising that Frazer only observed one tower on the northwest and west side of the hill if the tower spacing on the eastern section of ca. 30 m was maintained there. Alternatively, perhaps fewer towers were needed here because of the natural strength of the hill suggested by Pausanias.
relatively diminutive nature of the hill itself, the Phenean acropolis is both appropriately located and practically fashioned for defensive use.

Located at the edge of the plain, it was defensible without being too high or inaccessible, and was close enough to protect the arable land in its territory.\textsuperscript{780} Moreover, the decision to position the site in the northern part of the plain was a choice reflecting larger strategic considerations. For example, where access to the valley from the east, south, and west was made difficult by three of Arkadia’s great mountains, an approach from the north was considerably easier. Like the acropolis of Alea, the Phenean stronghold is ideally positioned precisely at the point where a narrow corridor opens into

\textsuperscript{780} For isolated towers and defensive outposts throughout the territory, see Tausend (1999b).
the larger plain. Such a location ensured control of the former and command of the latter. Furthermore, Pausanias observed a large channel running across the plain, south of the city, which he estimated to be around 9 km long and some 9 m deep. Although its primary purpose was to reduce the excess water which has plagued the valley throughout its history, the defensive possibilities of such a construction cannot be understated. As a defensive outwork, a canal of such dimensions would certainly add another element of defense to the city, especially in impeding an enemy’s approach from the south.

Fig. 5.13. Viewshed from the acropolis of Pheneos: a) facing S; b) facing NE; c) facing NW

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781 Paus. 8.14.3. No trace of this canal exists today. In the early 19th century, however, Leake (1830:3.151-52) echoes the observation of Gell (1817:151) that this canal was by then “a road conducted upon a magnificent mound.” Perhaps this mound was the result of centuries of dredging and piling of silt from the canal.
A review of the literature suggests it was not the scanty ruins of the ancient acropolis, but the undersized stature of the hill itself, that struck most of the ancient travelers as especially noteworthy. Nonetheless, the topography of the hill is fairly well-suited for a defendable acropolis. Whether parts of the site were left unfortified, as maintained by Pausanias, or whether parts of the circuit encompassed the entire area, the heights it afforded, supplemented by strategically placed artillery towers, were sufficient to meet the defensive demands inherent in its purpose. From the acropolis of Pheneos, not only was almost all of the territory visible [Fig. 5.13], but the towers of the extant fortifications ensured that the hill was well-equipped to meet any deficiencies caused by its relatively short stature.

Although there are apparently no posterns in the surviving section, both the course of the walls and the choice of tower shape certainly reflect a concern for keeping the enemy at a distance from the walls. While the topography of the north side of the hill would have permitted a straight, east-west oriented, course for the fortifications, the military architects opted for asymmetrical arrangement, deciding instead to lay out the walls with an obtuse and right angle. In this way, the semicircular Tower 2 (see Fig. 5.8) is more favourably positioned to provide artillery fire to safeguard the approaches on the flanking section of walls, especially toward the western half of the northern trace – a tactic that would have been unachievable if the eastern half of the circuit was straight and did not possess the shallow angle that it does. Similarly, the 90º angle separating the so-called eastern and western sections of the fortifications also provided the towers a greater field of fire with which to guard any hostile approaches. That is, setting the western stretch back (ca. 8 m to the south) created an open area to the north which could receive
additional coverage by the circular Tower 4 – again, a tactic that would have been
unattainable with a straight course of walls and less efficient with rectangular towers. In
short, the tactical modification of the trace guaranteed that both Tower 4 and Tower 2
were in a position to add further defensive support to the western trace and its
approaches. Finally, although only a fraction of the fortifications are under discussion
here, the tactical and strategic approaches they utilize are likely not unique to the cleared
area of the northern circuit, but representative also of the parts of the circuit which are no
longer visible.

5.1.4 Chronology

The most accurate way of dating any fortification circuit, of course, is to employ
both the known historical/archaeological record of a site and the style of the fortifications
themselves. Unfortunately in the case of Pheneos, our inquiries are limited exclusively to
the latter. Still, we are not completely without hope and the extant remains do provide
clues from which a chronological history of construction may be inferred.

As mentioned above, the regularity in form and spacing of the towers at Pheneos
tentatively suggest that they belong to the original period of construction. The almost
exclusive use of semicircular towers in a given stretch of wall as seen here is paralleled at
nearby Stymphalos, where they are also thought to belong to the original circuit,
constructed in the first third of the fourth century BCE. At around 28-30 m, the tower spacing at Pheneos is also comparable to the arrangement at Alea and Stymphalos.
(located ca. 21 m to the east). Moreover, its relatively modest dimensions (ca. 5 x 4 m) suggests that it belongs to the First Generation of artillery towers proposed by Ober and should predate the widespread use of defensive artillery.

Besides the walls themselves, the actual site chosen may also reflect an early fourth century BCE date. Despite the advantageous location of the site and the use of fortifications to enhance the overall dependability of the site, it cannot be denied that the acropolis of Pheneos is considerably short by Arkadian standards. Occupying the high ground has, of course, always been an essential defensive strategy throughout the history of Greek fortification building. Yet, until the invention of the torsion catapult and the widespread use of powerful offensive artillery characteristic of the later fourth century BCE, the ‘high ground’ was a relative concept. In other words, based on the poliorketics of the time, choosing a 60 m high hill for the location of an acropolis was not inappropriate for the early fourth century BCE. As poliorketics improved, however, during the course of the century, so too were the walls of Pheneos forced to keep pace. Such a scenario best explains the appearance of Tower 5. At nearly twice the size of its earlier counterparts, this large tower is consistent with Ober’s Second Generation of artillery towers, which were made to house the larger caliber torsion machines characteristic of the late fourth and early third centuries BCE. That Tower 5 came later may also explain its apparent unsystematic placement in relation to the general methodical arrangement of the other towers. That is not to say its position is in any way random – it must certainly have been seen to be strengthening a perceived weak spot in the defenses. Indeed, a tower of this size in this location would have been capable of

providing additional protection to both the slopes of the hill to the west and to the north. Additionally, in the absence of any posterns, its wide flanks would surely have discouraged any direct assault on the adjacent curtains.784

In 1858, Clark stated that the masonry of the fortifications at Pheneos “is as regular as that of Messene.”785 While few would likely draw the same conclusion today, Clark’s comparison with the Messene is not completely off the mark as they both may, in fact, have been contemporary. The handful of modern scholars who have cause to mention the walls of Pheneos,786 reiterate the now standard fourth century BCE date for their construction first suggested by Bölte.787 This date, or perhaps more cautiously, a date during the first half of the fourth century BCE, accords well with the evidence outlined above.

5.2 Ancient Stymphalos

The polis of Stymphalos, famous in antiquity as the location of Herakles’ sixth labour, is located in a narrow mountain valley in northeast Arkadia. As will be discussed below, the present site, located on the north shore of Limni Stymfalia, appears to have been an artificial foundation of the early fourth century BCE. The location of the earlier Archaic and Classic period settlement, the one mentioned by Homer and Pindar, remains unknown.788 Although Stymphalos is listed among the five “megalai poleis” of ancient Arkadia mentioned by Pseudo-Skylax, and was a member of the Peloponnesian,

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784 Like Alea, the lack of posterns in the Phenean circuit may perhaps also be evidence of an earlier date (Winter 1971a:239, 305).
785 Clark (1858:318).
787 Bölte (1938:1970) dates the walls specifically to the time of Epaminondas.
788 Hom. II. 2.608; Pind. Ol. 6.99. Pausanias (8.22.1) confirms that Stymphalos “was originally founded on another site, and not on that of the modern city.” Somewhere in the western end of the valley, near modern Lafka, is the best candidate for the location of the earlier settlement (Gourley, pers. comm.).
Arkadian, and Achaian Leagues, very little about the city is known from the literary and historical sources.\textsuperscript{789} Much of what is recorded, however, fortunately concerns the military history of the site – and by association, the city’s fortifications. Two historical events are especially significant in this regard.

Xenophon records that in the early fourth century BCE, the Athenian general “Iphicrates and his troops invaded many districts of Arkadia, where they plundered and made attacks upon the walled towns.”\textsuperscript{790} That Stymphalos was one of those ‘walled towns’ is supported by the testimony of Strabo, who provides a more detailed account of the Athenians’ unsuccessful siege of Stymphalos. Strabo maintains that “when besieging Stymphalos, and making no progress, [Iphikrates attempted] to obstruct the descent of the river into the ground by means of a large quantity of sponges, but desisted in consequence of some portentous signs in the heavens.”\textsuperscript{791} These accounts are of particular importance for our understanding of the history of the city and its fortifications, as they suggest that the city was both in its current location and walled by 371/69 BCE if not earlier.\textsuperscript{792}

Stymphalos again enters the historical record in 315 BCE, when, according to Diodorus Siculus, the city was captured in a night attack by Apollonides, one of

\textsuperscript{789} Ps.-Skylax 44. As with Mantinea, a comprehensive listing of the extensive and conclusive evidence for Stymphalos’ polis status is wasted here. See Nielsen (2002:590-92) for a summary of the evidence. Membership in the Peloponnesian League is assumed. Membership in the Arkadian League is demonstrated by Xenophon (\textit{Hell}. 7.3.1), and in the Achaian League by Polybius (2.55, 4.68).

\textsuperscript{790} In 392 and again in 371/69 BCE (Xen. \textit{Hell}. 4.4.16).

\textsuperscript{791} Strab. 8.8.4.

\textsuperscript{792} As noted by Williams and Gourley (2005:219), such a tactic is reminiscent of the stratagem employed by the Spartans on the walls of Mantinea in 385 BCE. Moreover, they accurately point to the fact that it “seems a ‘chicken-and-egg’ argument to consider whether Iphikrates tried this tactic in 392 BC, which suggested it to the Spartans in 385 BC, or vice versa” (2005:219, n.11).
Kassander’s generals. This event is significant to the history of the fortifications as the archaeological evidence suggests it is associated with the late fourth century BCE destruction layer discovered in the acropolis Bastion. Moreover, the subsequent rebuilding and enlargement of both the Bastion and the West Wall Tower have been linked to this event and the resulting presence of a Macedonian garrison in the city. Both the attack by Iphikrates and Apollonides preserved in the ancient sources will play an important role in determining the chronology of the Stymphalian circuit and are discussed in greater depth below.

Like Pheneos, Strabo counts Stymphalos among the cities of Arkadia that no longer existed in his day. This account is somewhat corroborated a century and a half later by Pausanias, who, besides a temple to Artemis and Hadrian’s aqueduct, finds little in or around the city worth mentioning. As evidenced by a considerable digression, it appears Pausanias was more concerned with a taxonomic identification of the Stymphalian birds. Indeed, as maintained by Williams, it would appear that Stymphalos’ celebrity, “then as now, mostly depends on the infamous birds whose destruction comprised Herakles’ [sixth] labour.”

In the now familiar pattern, the 19th century witnessed an uninterrupted stream of European travellers and scholars visiting the site of Stymphalos, leaving behind accounts

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793 Diod. 19.63.1-2.
794 Williams et al. (1998:313).
796 Strab. 8.8.2.
797 Paus. 8.22.1-9.
798 Williams (1983:194).
of varying quality. Perhaps not surprisingly, it is Frazer’s account at the end of the century that represents the best and most detailed account. While the subsequent analysis will have cause to draw on the works of some of these scholars, taken together, they do form an interesting picture of the changing appearance and visibility of the remains over time. While the history of scholarship on various aspects of the site continued into the 20th century, the actual archaeological history of the site began with Orlandos. Between 1924 and 1930, Orlandos conducted seven seasons of excavation at Stymphalos under the auspices of Greek Archaeological Service. Although he worked to uncover several important architectural constituents – including three of the city’s gates and the sanctuary on the acropolis – his excavations were brief and the summary of his findings even more so. After Orlandos, archaeological investigation of the site would not resume for over half a century.

In the summer of 1982, under the direction of Hector Williams, Stymphalos was designated as the inaugural project of the Canadian Archaeological Institute at Athens. In that year, geographical and topographical studies at the site began and the University of British Columbia (UBC) has carried out excavations since 1994. While excavations have been conducted in numerous areas across the site, the primary areas of investigation include a sanctuary on the acropolis, parts of the orthogonally planned lower city, and of

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799 E.g. Gell (1817:1.168); Dodwell (1819:2.432–35); Cramer (1828:3.308–14); Leake (1830:3.108–15); Boblaye (1836:147–48); Curtius (1851:1.202–7, pl. IV); Rangabé (1857:122–27, pl. XII); Clark (1858:319–323); Bursian (1862:2.194–98); Frazer (1898:4.268–275). On the archaeological and topographical contributions of some of these early scholars to our knowledge of ancient and modern Stymphalos, see Maher (forthcoming).


801 Orlandos (1924; 1925; 1926; 1927; 1928; 1929; 1930).


803 For a summary of the findings, see Williams (1983); Williams (1984); Williams (1985); Williams and Cronkite-Price (1995); Williams (1996); Williams et al. (1997); Williams et al. (1998); Williams et al. (2002).
considerable interest here, on several components of the fortifications. Consequently, the fortifications of Stymphalos remain one of but a few Arkadian poleis to receive detailed excavation and study.⁸⁰⁴ Thus, not only does the following analysis necessarily draw heavily upon the published findings,⁸⁰⁵ but because these investigations have provided “real insights into the changing practical requirements of defense of a fourth-century [Arkadian] polis,”⁸⁰⁶ they are also utilized throughout the present work as appropriate comparanda for the defensive works employed by other Arkadian settlements.

5.2.1 Geography and Topography

Located at the crossroads of Arkadia, Achaia, the Argolid, and the Sikyonia, the city of Stymphalos controlled a valley of considerable strategic importance [Fig. 5.14].

Characteristic of northeastern Arkadian geography, the Stymphalian valley (or basin), ca. 13 km long and averaging 2 km in width, is sharply delineated by the surrounding

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⁸⁰⁴ Because the fortifications are well published and having visited (and worked at) the site many times over the last decade, I did not apply for a study permit to investigate the remains at Stymphalos.

⁸⁰⁵ Williams and Gourley (2005).

mountains [Fig. 5.15]. Dividing Stymphalian territory from that of Alea and the Argolid are Mt. Ghidhomandra and Mt. Stavaetos, located on the south and southeast of the valley respectively. In the southwest lies the bulk of Mt. Oligyrtos which separates the valley from Orchomenos and Kaphyai, while to the west and northwest, Mt. Mavrovouni and Mt. Gherondio mark the border between Stymphalos and the territory of Pheneos. Finally, dominating the valley on the north is Mt. Kyllene and its two highest peaks, Ziria and Mikri Ziria.

![Fig. 5.15. Topographical map of Stymphalos and surrounding territory](image)

The most conspicuous feature of the Stymphalian basin is, of course, Lake Stimfalia. Located immediately south of the ancient city, this lake – more accurately, a marsh – occupies the complete width of the valley. Although the limits of the lake have varied over time, often alternating between two extremes – inundating parts of the lower
city or drying up completely – it is certainly much larger today than in antiquity.\textsuperscript{807} The lake is fed both by springs located on the slopes of Kyllene northeast of the ancient city, and by a seasonal river originating northwest of the site.\textsuperscript{808} Drainage of the lake is facilitated by a \textit{katavothros} located on its southwest shore.\textsuperscript{809} Both the lake and these streams played a significant role in the city’s defenses, and are discussed in greater detail below.

The settlement, surrounded by a 2.5 km long fortification circuit enclosing an intramural area of ca. 30 ha, is situated on the north shore of the lake immediately south of the modern hamlet of Kionia. Although the majority of the site was laid out over a flat area, the fortifications did incorporate a small acropolis in the southwest part of the city. Measuring some 600 m by 230 m, the acropolis is a narrow triangular spur stemming from a low hill west of the city. It rises relatively gently from the plain below on all sides but the southwest, where there is a precipitous slope elevated 50 m above the lake.\textsuperscript{810} The same chain of hills from which the acropolis emanates forms the western limit of a small plain north and northwest of the site. Extending east of both the city and the lake is a larger plain which curves north, terminating at the modern village of Kefalari.\textsuperscript{811} Located west of the lake, extending to the base of modern Lafka, is another, somewhat larger plain.

\textsuperscript{807} In the late nineteenth century, many of the natural outlets of the lake were sealed, creating a larger reservoir for an aqueduct to Corinth (Williams and Gourley 2005:220, n.13).
\textsuperscript{808} Ibid., (2005:220-21).
\textsuperscript{809} The Erasinos River near Argos is said to originate from the lake via this sinkhole. See Hdt. 6.76.1; Paus. 8.22.3; Strab. 8.8.3.
\textsuperscript{810} Williams (1983:196).
\textsuperscript{811} The exact eastern limit of Stymphalian territory – and southwestern limit of Sikyon territory – is uncertain (Williams and Gourley 2005:221).
As the city and lake occupied roughly the centre of the basin, any traffic across Stymphalian territory would be compelled by its geography to pass through (or very close to) the city itself. Today, as in antiquity, there are three primary entrances into the valley which represent the best candidates for the location of the ancient road-network. Two of these passes are traversed by the modern Stymfalias-Kiatou road – one via the northeast edge of the plain, the other through the Gherondio Mountains. While the latter almost certainly follows an ancient route – as this was the road taken by Pausanias – evidence suggests that the former was also part of the ancient road-network. This route represents the most obvious route to the coast and Sikyon, and interestingly, in the early 1800s, Dodwell apparently observed traces of the ancient road, running east-west just north of the city. The third artery in and out of the valley was likely located in the pass above the southeast edge of the lake. Although modern quarrying has obliterated any trace of an ancient road, there are clues which suggest that one existed here in the past. Not only is it easily traversable, but during his travels, Gell observed that “the pass between the mountain and the lake had also been fortified by two walls.” That the pass here warranted rural defenses suggests the existence of a main road. Finally, the only other tangible survival of the ancient road-network is a small ramp leading from the lake to the Acropolis Gate, located outside and northwest of the city’s main gate. This path,

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812 The so-called Wolfglen Pass, located above modern Lafka in the southwestern part of the valley may also have been an important road in antiquity. Although Williams and Gourley (2005:219, n.10) – echoing the sentiments of Frazer (1898:4.269) – state that this pass is “relatively easy to negotiate,” I did not find this to be the case when I employed the pass in May of 2010 on route from Orchomenos to Pheneos.

813 Dodwell (1819:2434). This may have been the same road, now covered by the asphalt of the modern road, mentioned by Pikoulas (1999:297, number 48).

814 Gell (1823:384).
however, sheds little light on the larger road-network of the valley as it could have been accessed by any of the roads mentioned above.\textsuperscript{815}

5.2.2 The Fortifications

After describing his visit to the site on the 30\textsuperscript{th} of September, 1895, Frazer observed that “the fortifications seem to have been much better preserved down to the middle of the century.”\textsuperscript{816} The validity of this opinion is hard to assess, as the travelers of the first half of the 19\textsuperscript{th} century were concerned more with the hydraulic properties of the basin than with the fortifications. For example, of the visible remains, Gell writes only that, “the ruins of Stymphalus…lie on the northern shore of the lake;” Dodwell also only vaguely mentions the “ruins of Stymphalos;” Leake is slightly more insightful and tells us that “the principal remains are upon or near the promontory and consist of ruins of polygonal walls;” finally, Boblaye’s account, published a few years later, reports that “les eaux du lac baignent aujourd’hui le monticule sur lequel se voit l’enceinte de la ville flanquée de tours carrées.”\textsuperscript{817}

From these accounts, it remains unclear whether the fortifications were not visible during this time, or were visible, but not interesting enough to warrant detailed comment by these travelers. The latter seems more likely, as descriptions of the site during the 1850s and 1860s contain considerably more detail, often including the building method of the walls, its trace, and its towers and gates.\textsuperscript{818} Most notable in this regard is Rangabé,

\textsuperscript{815} Pikoulas (1999:296-97, number 47).
\textsuperscript{816} Frazer (1898:4.273).
\textsuperscript{817} Gell (1817:1.168); Dodwell (1819:2.435); Leake (1830:3.110); Boblaye (1836:147).
\textsuperscript{818} E.g., Curtius (1851:1.204-05, pl. IV); Clark (1858:321); Bursian (1862:197).
who accompanied his fairly instructive description of the circuit with an early plan of the site [Fig. 5.16].

![Fig. 5.16. Plan of Stymphalos from Rangabé (1857: pl. XII)](image)

All of the accounts from the middle of the century only describe two parts of the trace: the one running north from the acropolis and the other, the southern part of the circuit on and below the acropolis. Frazer’s opinion that the walls were better preserved in the first half of the century is rooted in the fact that the towers running along the southern heights of the acropolis were no longer visible in his day. Still, it would appear from these early accounts that in general, the preservation of the walls has changed little in the last two centuries. Today, as then, while the foundations of the Acropolis Bastion are visible on the surface, as is much of the western and southern acropolis trace, much of the northern, eastern, and southern sections of the walls are not. Nonetheless, by combining what we know from the visible remains with geophysical

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819 Rangabé (1857:125-26, pl. XII).
820 Frazer (1898:4.271).
testing, kite photography, and the patterns of modern field boundaries, the course of the fortification circuit can be accurately reconstructed [Fig. 5.17].

At the highest point of the acropolis is the Acropolis Bastion, from which the circuit proceeds northeast down the slope of the hill, before gently curving eastwards. After this curve, the wall moves on a southeast course toward the edges of the lake where it bends westwards. The southern section of the lower city circuit runs almost due west before making a 90º turn north and continuing up the southern slope of the acropolis. After a short stretch, the circuit makes another 90º turn, this time toward the west, after which it proceeds in a straight line up the hill, meeting the Acropolis Bastion at its southeast corner. In total, the fortifications surrounding ancient Stymphalos are

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821 Williams and Gourley (2005:222-23).
approximately 2.5 km in length. The circuit is reasonably uniform in its composition and contains forty-five regularly spaced rectangular and semicircular towers, seven gates, as well as one postern. As the walls incorporated a small acropolis and encompassed a lower city, based on the classifications employed here, the defensive system at Stymphalos is of the uneven-type.

Archaeological investigations have demonstrated that the curtains and towers were built of mudbrick on a polygonal foundation of local limestone. The width of the curtain varies from 4.50 m in the flat sections surrounding the lower city on the east and west, to 2.50 m for the curtains on the south side of the acropolis.\footnote{Ibid., (2005:222).} Furthermore, excavation of this southern acropolis section has revealed more detail regarding the method of construction. In this area, the stone socle is comprised of an inner and outer face of “rough polygonal blocks,”\footnote{Ibid., (2005:223).} the top of which were made flat to receive the mudbrick superstructure. Although no bonding courses were uncovered, header blocks were found distributed at fairly regular intervals in order to bond the faces with the earth and rubble core.\footnote{Ibid.} Finally, the deepest excavations revealed that the lowest foundation blocks were carefully cut to complement the shape of the natural bedrock on which they rested.\footnote{Ibid.}

Both the towers and the gates of the Stymphalian circuit can be divided into two basic chronological categories: those belonging to the original circuit, and those built or modified at a later date. The vast majority of the towers and most of the gates appear to belong to the original circuit, as their general form and distribution are “firmly
entrenched in the early fourth century defensive practice. The use of differing tower types in the same circuit was not unusual, and the form of both the rectangular and semicircular towers resemble other fourth century BCE examples. Interestingly, the rectangular towers are found exclusively on the northeast stretch of the circuit, where six existed on the flat ground south of the West Wall Tower, and at least one just outside the Northwest Gate. All appear to be constructed with a stone facing, one course high above the ground, with a rubble core, and on average, measure 6.50 m x 6.50 m, with a 2.50 m projection from the wall. The semicircular towers are much more frequent, and twenty examples can be found distributed evenly along the lower eastern and southern sections of the trace. These towers are comparable in size to their rectangular counterparts, averaging 6.35 m in diameter and projecting 2.50 m from the curtain. The six semicircular towers on the southern side of the acropolis, by contrast, are much smaller – about half the size of the towers elsewhere on the circuit.

Of the circuit’s seven gates, four are of the overlap type and appear to belong to the original phase of construction: the so-called West, Northwest, Northeast, and East Gates (see Fig. 5.18). In basic form and function, these gates resemble those of Mantineia, though whereas the overlap gates of Mantineia display considerable variation, the Stymphalian examples “are all virtually identical.” For example, all four contain a ca. 20 m long corridor formed by overlapping sections of the curtains and are protected

827 Ibid. The fortifications of Pheneos, for example, also employ both types of towers.
828 The West Wall Tower was a later modification of one of these rectangular towers. On the reasons for their use in this section of the wall only, see Williams and Gourley (2005:241, n. 42).
831 Ibid.
832 Ibid., (2005:228).
by both a tower outside the approach and by a circular tower at the start of the corridor (on the attacker’s left). Both the West and Northwest gate contain a second circular tower protecting the intramural end of the corridor. As noted by Williams and Gourley, it is not clear why these gates were left in their original form while others were modified, although certainly they must have satisfied the defensive requirements in the areas of the circuit in which they were located.833

The Acropolis Gate is another feature likely belonging to the original circuit.834 Located about 50 m north of the Pheneos Gate and approached by the ramp mentioned above, this is the only gate in the circuit not located on the flat plain. It is a simple frontal gate – the lower parts of the flanking uprights are preserved – with an opening about 5 m wide.835 This gate was not provided with any towers or additional protection, nor would it seem such precautions were necessary, as the ramp leading towards the gate was protected by the network of towers lining the southern side of the acropolis on the heights directly above.836 As the ramp’s deeply-cut wheel ruts attest, this gate would have served to bring cargo up to the acropolis. The other two gates at Stymphalos, as well as three towers, do not belong to the original circuit, but to a second phase of construction. The modification of existing structures characteristic of this phase represents a defensive response to the new offensive threat established with the invention of powerful torsion artillery.

834 Although Williams and Gourley (2005:239-40) do not provide a date for this gate, its form and more importantly, its location, suggest it was built at the same time as the general circuit.
836 Ibid.
The Phlious Gate, located in the extreme southeast of the city, was first partially excavated by Orlandos in 1926. The excavations by the team from UBC in the summer of 1999 added considerably to what is known of this interesting architectural feature [Fig. 5.18]. Most significant was the discovery that this gatecourt was not original to the circuit (as initially believed), but had been modified, having replaced an earlier simple overlap type gate. This modification had been performed by constricting the corridor to 3 m in width at either end with the addition of a circular courtyard, ca. 7 m in diameter in the space between. Whether it is because the width was considered too great and/or no fittings were discovered, Williams and Gourley maintain that “there do not appear to have been doors at the outer end of the courtyard.” The defensive principles of the

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837 See Orlandos (1926).
838 See Williams et al. (2002:167-68) and Williams and Gourley (2005:232-35). For a 3D reconstruction, see Fig. 3.7.
840 The original circular tower flanking the right of the corridor was maintained in the new arrangement (Ibid., 2005:233).
841 Ibid.
gatecourt, however, suggests that some form of door must have been present. The chances that an enemy would willingly attempt an assault on a gate that contained an – appropriately named – ‘killing court’ if it could actually see such a feature are slim. Without a gate blocking the outer entrance, the Phlious Gate would have operated essentially like the earlier overlap gate, making the subsequent modification functionally meaningless.

The final gate of the circuit is the Pheneos Gate, located below the acropolis on the flat ground in the southwest corner of the city. Like the Phlious Gate, this structure was excavated in 1926 by Orlandos and subsequently, by UBC in 2001 [Fig. 5.19].

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842 See Orlandos (1926) and Williams and Gourley (2005:236-39). For 3D reconstruction of this gate, see Fig. 3.6.
This gate, oriented east-west and comprised of a simple opening in the western stretch of
wall, provided access to the lower city on the southern side of the acropolis. With the
exception of a circular tower located some 20 m to the north, little in the way of
defensive concern was given to the Pheneos Gate.\textsuperscript{843} Furthermore, the discovery of
columns (suggesting an ornamental portico) as well as benches found lining either side of
the gate, also point to the “peaceful quality of the structure.”\textsuperscript{844} Although the confused
stratigraphy in the area resulting from the earlier excavations has prevented the
establishment of a precise chronology for the gate, as noted by Williams and Gourley,
this structure “is not consistent with the original defensive requirements of such a
gate.”\textsuperscript{845} Consequently, it has been suggested that the original gate took the form of a
simple opening and was later modified to its present form.\textsuperscript{846}

The modification of existing structures was not limited to the gates, and at least
four structures have been identified which also correspond to a second phase of
construction designed to exploit the powerful new torsion machines to a defensive
advantage. Reflecting the perceived defensive concerns dictated by the topography of the
site, these structures are found only in the western part of the city.

On the highest point of the acropolis and westernmost part of the circuit lie the
ruins of a large tower [Fig. 5.20].\textsuperscript{847} From the accounts of early travelers, it appears that
the foundations of this, the so-called Acropolis Bastion, have always been visible.\textsuperscript{848}

\textsuperscript{843} Like the Acropolis Gate and ramp, it must have been felt that both the acropolis fortifications on the
north and the lake to the south were sufficient to repel any unwanted approach from the west.
\textsuperscript{844} Williams and Gourley (2005:237).
\textsuperscript{845} Ibid.
\textsuperscript{846} Several structures located just inside the gate appear to have been later (first century CE) additions to
the city, and it is possible that the Pheneos Gate was also modified and embellished at that time (Ibid).
\textsuperscript{847} Ibid., (2005:247).
Fig. 5.20. Plan of Acropolis Bastion from Williams and Gourley (2005: Fig.13)

Fig. 5.21. Northwest corner of Acropolis Bastion (facing SE)

Curtius (1851:1.204); Rangabé (1857:125); Clark (1858:321); Bursian (1862:197); Frazer (1898:4.271). See also, Williams and Gourley (2005:246-50).
Even today, the northwest corner of the tower stands to a height of 3 m, and represents an excellent example of uncoursed polygonal masonry [Fig. 5.21]. Excavation of the tower in 1997 revealed much about the internal layout, the relative chronology, and the superstructure of this impressive specimen. For example, it was discovered that the Acropolis Bastion, measuring 21 m x 11 m with walls 3 m thick, had replaced an earlier smaller rectangular tower, the remains of which were encapsulated by the later structure.\(^{849}\) Furthermore, excavations also revealed an interior divided into several small rooms with a staircase providing access to the upper levels.\(^{850}\) Finally, atop the western and southern foundations of this tower, archaeologists were surprised to discover that parts of the mudbrick superstructure were extant – surviving to the height of almost a meter.\(^{851}\)

The other modified artillery installation on the acropolis is the Hexagonal Tower. Ideally located on the heights of the acropolis commanding the approach toward the Pheneos Gate, this tower was initially believed to have been part of the original circuit. Later excavation, however, soon demonstrated the presence of an earlier, semicircular tower, bonded to the curtain behind.\(^{852}\) At 6.55 m wide, presenting five sides 4.0 m in length and 1.10 m thick, and projecting 5.90 m south from the adjacent curtain, this tower is considerably larger than the three semicircular towers situated on either side of it.\(^{853}\) Moreover, the uncoursed quarry-faced polygonal foundations, which enclosed a core of packed rubble and earth, appear to be preserved to its original height for most of its

\(^{849}\) Williams and Gourley (2005:246).
\(^{850}\) Ibid.
\(^{851}\) Ibid.
\(^{852}\) Ibid., (2005:245).
\(^{853}\) Ibid., (2005:245-46).
surviving length. Although hexagonal towers are rare in the history of mainland Greek fortifications, as will be discussed below, both the form and placement of this tower represent an active defensive modification related to evolving poliorketics of the later fourth century BCE.

The final two structures which were not part of the original trace are found on the plain north of the acropolis, concentrated on the western part of the circuit. The West Wall Tower, located in roughly the middle of the western city wall, was excavated in 1999 and again in 2005 [Fig. 5.22]. These excavations not only exposed the foundations

![Fig. 5.22 Plan of West Wall Artillery Tower from Williams and Gourley (2005: Fig. 14) built over original rectangular tower (shaded).](image1)

![Fig. 5.23 Interior of West Wall Artillery Tower after 2005 excavations (facing W).](image2)

of an earlier rectangular tower, with dimensions identical to those directly to the south, but also a hoard of coins of the fourth and early third centuries BCE which represents the most conclusive evidence for the date of its subsequent modification. The foundations of this tower, measuring 15 m in length by 9 m in width, survive for its entire height. The walls themselves are 3 m thick and are constructed of massive coursed polygonal blocks,

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855 Interestingly, with examples from Mantinea and Stymphalos, half of the four known hexagonal towers in the Peloponnese come from Arkadia. The other two are found in the Argolid at Asine and Argos.
856 Williams and Gourley (2005:250).
three courses of which survive on the interior [Fig. 5.23]. While the incredible size of this tower and its strong foundations suggest it would have housed a battery of artillery, its location and orientation reflect a concern for protecting the open and flat ground west of the city. Such a concern is also manifested in the final addition to the circuit, the West Wall Structure, located 130 m south of the West Wall Tower. This enigmatic structure is represented on the ground by “a [50 m long] wall about a metre wide running about 2 m in front of the line of the west wall.” Originally thought to correspond to later repairs, it is now held that these remains may be better explained as a possible emplacement for a battery of artillery. Although such an interpretation is speculative, an outwork in this location is completely in keeping with both the appearance of the extant remains and the larger defensive considerations given to this area of the Stymphalian circuit.

5.2.3 Strategy, Tactics, and Defensive Planning

As noted by Williams and Gourley, the city of Stymphalos was provided with a number of natural defenses and “we must assume that its very form and its position in the valley were largely dictated by defensive considerations.” Indeed, not only was Stymphalos’ position in the valley ideally suited for controlling the traffic through the

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857 Excavation of the tower in 2005 supervised by the author, showed that the lowest course of the foundations were built directly onto the bedrock, which had been carefully cut to receive them.  
858 Williams and Gourley (2005:250-51).  
860 Ibid. Williams and Gourley (2005:253, n. 52) maintain that a similar structure can be found on the acropolis of Alea. They are not specific as to exactly where on the acropolis such a structure is to be found, and I cannot find evidence (on the ground or from the plan) that suggests the existence of such an emplacement (see Fig. 4.3). I am left to guess that they are referring to the stretch of wall running northwest from tower 15 toward the gate of the citadel. Although artillery certainly could have been placed atop this stretch, it is different than Stymphalos, however, in that it is a proper curtain wall and not a separate outwork.  
territory as touched on above, but the considerable natural defenses immediately surrounding the site itself must have been decisive factors in the architects’ evaluation and eventual choice of this location. Specifically, it was the hydraulic features of the valley – of so much interest to the early travelers – that, when combined, were responsible for providing a natural defense on three sides of the ancient city [Fig. 5.24]. It was only the western side of the city, devoid of natural defences, that could be threatened by a conventional land-based attack – an arrangement that accounts for the substantial defences on this part of the circuit.

Fig. 5.24. Plan of site and natural defenses after Williams and Gourley (2005: Fig.3)

In antiquity, a seasonal river, originating above the modern hamlet of Kionia and running parallel to, and just north of the city, would have provided an effective natural
boundary in this direction. Furthermore, as the lower slopes of Mt. Kyllene can be found creeping into the valley just 300 m north of the city, they too would have acted as natural boundary, providing additional protection to the northern part of the city. On the east side of the city, springs located to the northwest of the site formed a small river flowing south to the lake. This river, traces of which can still be seen today, ran almost parallel to the east side of the circuit, and like the stream to the north, would have prevented access to this part of the city. The last, but certainly not least, natural defence is the eponymous lake protecting the south flank of the city of Stymphalos. Although, as mentioned, the lake is certainly much larger today than in antiquity, at the time the original circuit was in place, it must have covered at least the length of the lower city.

This southern section of the city was unquestionably the best defended; not only because it contained the greatest number of towers, but more importantly, because here the circuit was laid out to complement the natural topography in a way which is unparalleled with any other section of the circuit. While the lake would have provided significant protection to the whole south side of the city, additional measures were employed to ensure the city’s safety, characterized by the modification of the Phlious Gate and the Hexagonal tower. Sometime in the late fourth or early third century BCE, the Phlious Gate was modified from a simple overlap gate into the more stalwart gatecourt that exists today. The same defensive concerns that prompted this modification were also responsible for changes to the south trace of the circuit atop the acropolis.

863 Ibid., (2005:220). Like at Mantinea, perhaps on the north and east sides of the city bounded by these water courses, we may suppose the existence of bridges leading toward the gates.
This section of the wall with its original seven semicircular towers commanding one of the main approaches to the city must have been tactically important from the beginning. Even before the construction of the Hexagonal Tower, anyone approaching the Pheneos Gate would have experienced a bottle-neck effect produced by a narrowing of the approach caused by the rising acropolis and its array of towers on one’s left, and by the expanse of the lake to the right. As the Pheneos Gate itself had very little in the way of defensive architecture, it was crucial that any attacker be stopped before they reached it. Accordingly, again in the late fourth or early third century BCE, military architects added further elements of defence for this approach, the Hexagonal Tower and the Acropolis Bastion.

The orientation of the Acropolis Bastion, with its broadest side facing to the west, suggests, that although it was in the position to protect some of the flat ground north of the acropolis, its primary purpose was to guard an approach from the southwest. Similarly, the Hexagonal Tower was also intended primarily to guard this same approach. Its shape, as discussed, provided a greater field of fire than a simple rectangular one and, at twice the size of the surrounding semicircular ones, would certainly have been able to house a greater number of larger machines. Moreover, not only would its placement in the middle of the trace and its five sides have provided effective coverage of the approach below, but also coverage of the Pheneos Gate itself, which was “directly in line with the eastern oblique face of the tower.” Taken together, the fortifications in this area, complemented by the topography, guaranteed that any unfriendly move toward the

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Pheneos Gate would have been incredibly intimidating, and a completely impractical offensive option.

Finally, the complex relationship between the natural topography and the fortifications is also observable in the western part of the city circuit. The flat area north of the acropolis is the only section of the city not provided with some form of natural defense. Accordingly, the overall security of the system is compensated in this area by an increased reliance on the composite parts of the circuit – i.e., the deployment of towers. Significant in this regard are the two later additions to the circuit, the West Wall Tower and the West Wall structure. Like the Hexagonal Tower on the acropolis, the placement of the West Wall tower in the middle of the stretch of wall alludes to its primary function – namely, to command and dominate both the area immediately in front, and the adjacent curtains. As noted by Williams and Gourley, its “projecting rectangular plan suits this requirement and provides the possibility of defending the frontal approaches to the wall, and also laterally along the line of the curtains in both directions.” Importantly, because of its location and alignment, the West Wall Tower would have also been able to provide lateral fire to the north toward the entrance corridor of the West Gate. Providing additional coverage of the flat ground to the west was the West Wall Structure. If the remains of this structure have been interpreted correctly, and it does indeed represent an artillery platform, it only further reinforces the defensive significance of this part of the circuit. As the flanking artillery from the West Wall Tower may not have been able to cover all of the curtain to the south toward the lower slope of the acropolis, perhaps this

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section was perceived as a weak-spot in the circuit. The West Wall Structure was likely part of the same building program of the late fourth or early third century BCE that witnessed the modifications of the other prominent defensive installations on the circuit.

5.2.4 Chronology

As evidenced by the considerable summary outlined above, we have at our disposal an appreciable amount of detail regarding the fortifications of ancient Stymphalos. Owing to the careful excavation and detailed study, moreover, discerning a chronology for the walls of Stymphalos presents the least trouble of all the circuits under discussion in the present study. Although some earlier material (coins, pottery, sculpture, etc.) has come to light during the three decades of investigation at the site, the preponderance of the architectural evidence suggests that the city of Stymphalos was developed at its current location during the first half of the fourth century BCE. At that time, the settlement was laid out on a grid plan and fortified by an extensive circuit of walls, towers, and gates. The specific date of the refoundation may be narrowed down to around 371/69 BC, as Strabo and Xenophon’s account of Iphikrates’ failed siege would suggest. Moreover, the similarities in the building material, layout, and constituent parts between the fortifications of Stymphalos and Mantinea also point to a date of ca. 371/70 BCE. At that time, the scattered Mantineans, possibly with Theban aid, returned to rebuild their city (and city walls) destroyed by the Spartans in 385 BCE. If Stymphalos was also associated with the network of Arkadian cities established to limit Spartan

869 The discovered damage to the original Acropolis Bastion not withstanding, it is not inconceivable that this was the actual spot where Apollonides’ forces breached the city in 315 BCE. Such a scenario would fit both the chronology of the West Wall Structure and the belief that such a structure was subsequently essential to the security of the western trace.

influence in the Peloponnese, as held by Williams and Gourley, then a date during the first third of the fourth century BCE for the refoundation of Stymphalos would not be implausible. 871

Whether it was the new offensive threat imposed by the recently invented torsion catapult or the successful siege of the city by Apollonides in 315 BCE – or most likely, a combination of both – the archaeological evidence suggests that sometime in the late fourth or early third century BCE, the fortifications of Stymphalos underwent a second phase of construction. The best chronological evidence for this phase comes from the West Wall Tower, where in 1999, excavations revealed a hoard of coins dating to the fourth and early third centuries BCE. 872 These coins not only serve to date the modification of the West Wall Tower, but also the rebuilding of the other additions mentioned above. 873 Furthermore, the stratigraphy and associated ceramic deposits from the Phlious Gate, the Hexagonal Tower, and the Acropolis Bastion all further corroborate a late fourth or early third century BCE date for their subsequent modifications. 874 Finally, the very form and nature of these modified structures themselves, exemplifying a very active defensive outlook, all point to the a late fourth/early third century BCE – a time when artillery was beginning to find its true place as a defensive, rather than offensive, weapon.

872 The latest issued are those of Demetrios Poliorcketes (Ibid., 2005:250).
873 Ibid.
5.3 **Ancient Kleitor**

As in the case of ancient Pheneos, no Archaic or Classical sources explicitly refer to Kleitor as a *polis*. Still, its identity as such can be inferred by its satisfaction of the criteria established by the *CPC*. For example, the collective use of the city ethnic can be found employed both internally and externally; the city began minting coins around the middle of the fifth century BCE; an inscription from the early third BCE century records a long list of the city’s *proxeni*; another inscription tells us a *theorodokos* from Argos resided at Kleitor in ca. 330 BCE; and finally, the city boasted two Olympic victors from the early fourth century BCE.

As well as an established *polis* identity, Pausanias tells us that the eponymous founder of the city was the son of Azan. Kleitor’s tribal affiliation as an Azanian community, alongside Pheneos, however, played a less significant role in forming any lasting identity, since even if this tribe once constituted a political unit, it had broken up by the fifth century BCE. The earliest attested event in the history of the city comes from an Archaic dedication from Olympia recorded by Pausanias. He tells us that in the sixth century BCE, the citizens of Kleitor erected a statue of Zeus to whom a tithe was dedicated from the spoils taken “from many cities [they had] reduced by force.”

Unfortunately, like so many Greek *poleis* that existed on the periphery of what Baker-

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876 Attested internally on fifth century BCE coins (Head 1963:446) and externally as implied by Xenophon (*Hell.* 5.4.36).
877 Head (1963:446).
878 *IG* V.2 368.
879 *SEG* 23 189.II.22.
880 *Olympionikai*, nos. 395 and 406.
881 Paus. 8.4.4.
883 Paus. 5.23.7.
Penoyre colourfully refers to as the “brilliant and crowded pageant of Greek history,”\textsuperscript{884} we know relatively little about Kleitor during the Classical and Hellenistic periods. Dodwell perhaps captures this frustration best, writing “the history of this little state is enveloped in obscurity and not much more is known of it than that it was sequestered in the heart of Arcadia and as it were excluded by its mountainous enclosure from the other states of Greece.”\textsuperscript{885} We are not completely in the dark, however, and owing largely to the ancient sources, we are able to shed some light on the history of this \textit{polis}.

We know, for example, that Kleitor was a member of the Peloponnesian League,\textsuperscript{886} a leading member of the Arkadian League,\textsuperscript{887} and later, a member of the Achaian League.\textsuperscript{888} Moreover, in 379 BC, during the Theban war with Sparta, Kleitorian mercenaries fought alongside the forces of Kleomenes in the hostilities directed against Orchomenos.\textsuperscript{889} Finally, when, during the Social War, Kleitor refused to abandon its alliance with the Achaian league, Aitolian forces besieged the city, but upon “meeting with a bold and determined resistance from the inhabitants,”\textsuperscript{890} and presumably from the fortifications as well, the Aitolian army abandoned their attempt to take the city.

Despite the relatively minor status afforded by history, the site and territory of Kleitor received a fair amount of attention from 19\textsuperscript{th} century European travelers. Such attention was almost certainly the result of the fact that the site was first visited by Pausanias, in whose footsteps many of these men followed. Although the city was still

\begin{itemize}
\item \textsuperscript{884} Baker-Penoyre (1902:235)
\item \textsuperscript{885} Dodwell (1819:2.444).
\item \textsuperscript{886} Xen. \textit{Hell}. 5.4.36-37.
\item \textsuperscript{887} \textit{IG} V.2 1.52.
\item \textsuperscript{888} Polyb. 4.19.
\item \textsuperscript{889} Xen. \textit{Hell}. 5.4.36.
\item \textsuperscript{890} Polyb. 4.19.
\end{itemize}
occupied to some degree at the time of his visit, the Periegete offers the reader a comparatively brief account of the remains, limiting his narrative almost exclusively to the extramural sanctuaries.\textsuperscript{891} The brevity of this account did not prevent later travelers from wanting to see the remains for themselves, and in fact, Pausanias’ passing description of Kleitor may actually have encouraged further exploration of the area. While the accounts provided by these 19\textsuperscript{th} century travelers vary in both quality and quantity, the one thing they hold in common is their focus on the most significant standing remains – the fortifications.\textsuperscript{892}

Frazer’s detailed account of the site not only marks the turn of the century, but arguably also the point at which the focus on Kleitor can be said to have shifted from simple travel reports to what can be considered proper academic inquiry.\textsuperscript{893} Frazer’s work, moreover, stands at the beginning of a long line of scholarship on Kleitor and its fortifications. While the site is mentioned briefly and in passing in the Arkadian itinerary of Hiller von Gaertringen and Lattermann, it is Papandreou who picks up where Frazer left off.\textsuperscript{894} Papandreou’s detailed account of the local topography and geography, as well as the visible remains (e.g., the theatre and fortifications) remained the point of reference for scholarship on the site until relatively recently. Even twenty years later, Meyer had little to contribute to our knowledge of Kleitor, stating “Eine näheres Eingehen auf

\textsuperscript{891} Paus. 8.21.1-4. Some of the text in Pausanias’ account of Kleitor is lost, possibly accounting for his brief account.

\textsuperscript{892} E.g., Dodwell (1819:2.442-44); Leake (1830:2.257-59); Boblaye (1836:156-57); Curtius (1851:1.374-77); and Bursian (1862:2.263-64). The one possible exception is Gell (1817:130), who vaguely reports observing only the “city [and] ruins...of Kleitor.” For early plans of the site, see Leake (1830:2.258); Reinach and LeBas (1888: pl.34); and Papandreou (1920:113).

\textsuperscript{893} Frazer (1898:4.264-67).

\textsuperscript{894} Hiller von Gaertringen and Lattermann (1911:7-8); Papandreou (1920:96-114).
Kleitor erübrigt sich, da Papandreou eine ausführliche Beschreibung gegeben hat."  

Although the topographical and background information pertaining to Kleitor provided by Jost in her survey of Arkadian sanctuaries is very useful, it is the work of Winter and later, Petritaki, which is most significant for the present purposes.  

While Winter’s brief, but succinct study of the fortification of the ancient site provides important functional and chronological insight on the subject, it is the excavations and survey of the site by Petritaki which mark her as the principle authority on Kleitor. Focused primarily in the southwest area of the city between the city wall and the theatre, excavations have been carried out by the Greek Archaeological Service since 1987. These excavations have added considerably to our knowledge of the site in all its periods of occupation. For example, the collected evidence suggests that the city flourished during the Classical and Hellenistic periods, and into the early Roman period – despite the fact that Strabo lists it among the deserted cities of Arkadia. Most significantly, the recent investigations of the site – including excavations on parts of the fortification circuit – performed by Petritaki and her team, have produced the first accurate plan of the site and the course of the city walls [Fig. 5.25].

895 Meyer (1939a:109-10).
899 Petritaki (1996:88); Strab. 8.8.2.
900 Petritaki (2005: Fig. 1).
5.3.1 Geography and Topography

The ancient site of Kleitor stands on the flat plain at the western end of a small valley in north central Arkadia [Fig. 5.26].\textsuperscript{901} The territory of Kleitor, encompassing an

\textsuperscript{901} Today, the area is part of the prefecture of Achaia, not Arkadia.
estimated 625 km² was considerably larger than its closest neighbours. The immediate *chora* of the city, however, was comprised of the valley in which it was located. This valley is not particularly large, measuring ca. 6 km from east to west and 1.50 km north to south, and is surrounded on all sides by hills [Fig. 5.27]. While the hills to the south and west of the valley are relatively low, the hills bordering the north of the valley are more impressive, reaching heights of over 600 m above the plain. The lower slopes of Mt. Chelmos, which rise steeply from the plain, reaching heights of over 1000 m, define the east and northeast parts of the valley. East of the city, at the foot of this chain, the Kleitor valley opens onto the Aroanios valley, where the river flows south to meet the Ladon on its east-west course. As we have seen elsewhere, the mountainous terrain defining the territory of Kleitor also served to separate it from that of the surrounding *poleis* (see Fig. 5.26). The hills to the north and east marked the boundary between Kleitor and Kynaitha and Paos respectively, while those to the west separated Kleitor from Phenean territory.

![Fig. 5.27. Topographical map of Kleitor and surrounding territory](image)

902 This estimate is based on the map in Jost (1985:Fig.1), and includes the territories of Lousoi, Paos, Thaliades, and Halous. Such an estimate is probably too high, as it is not even certain whether these *poleis* were dependencies of Kleitor before the Roman period (Nielsen 2002:560).
Ancient Kleitor, as mentioned, lies on the nearly completely flat plain at the western end of its valley, where, like ancient Stymphalos, the city occupies almost the complete width of available land. As such, it is separated by only ca. 250 m from the hills to the north, by less than 150 m from the eastern slope of Pantelemona Hill to the west, and in places, by less than 150 m from the hills to the south. While to the west of the city, on the other side of Pantelemona, there is some arable land (ca. 100 ha), the majority of the farmland, some 500 ha, lies east of the city. Today, as in antiquity, these fields were supplied by two primary water sources: the Kleitor and the Karnesi Rivers. The former runs parallel to and just south of the city, and the latter, in a northwest to southeast direction to the north and east of the city. These rivers meet just outside the southeast limit of the settlement before heading west to meet the Aroanios River.

Surrounded by hills on three sides and by rivers on two, the fortifications of Kleitor run for a length of 2500-3000 m and enclose an area of ca. 58 ha.\(^{903}\) Although the vast majority of the extant circuit was constructed on flat terrain and encircled equally flat terrain, the southern section of the wall adopted a slightly different course. Here the fortifications engage a small rise – known as Kontra Hill – characterized by its two low conical peaks, each rising to a height of less than 20 m. The walls traverse the western peak and the saddle between the two, enclosing the second peak within the intramural area. Moreover, to the west of Kontra Hill is a second, smaller rise, called Palati Hill.

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\(^{903}\) Petritaki (1996:88). This is an estimate, as the course of most of the northern stretch of the city wall is lost. Still, there appears to be no consensus on the size of the intramural area. Jost (1985:40) and Winter (1989:189, n.2) suggest an area of 28 ha – a number apparently based on the belief that the missing northern part of the walls followed the modern course of the Karnesi River. Even Petritaki is not consistent, providing an area of 145 acres (=58 ha) in one publication (1996:88) and 1.90 km\(^2\) (=190 ha) in another (2005:351). Based on the conjectured line of the northern wall on Petritaki’s plan, however, 58 ha appears to be the most accurate.
circuit runs around the west and south of this hill, also incorporating it into the intramural area.

Finally, although there is little surviving evidence of the ancient road network traversing the territory of Kleitor, the topography does suggest a number of possibilities. For example, there must have been a road leading over the mountains from Pheneos to the Aroanios River valley. Not only was this the route taken by Pausanias, but on his journey from Lykouria to Kleitor, Gell observed “traces of an ancient road.”904 Where exactly on this route he noticed this road remains unclear. Still somewhere in the Aroanios valley seems as good a candidate as any, as this route provided the easiest means of communication between Kleitor and Pheneos, Kaphyai, and eastern Arkadia beyond. Furthermore, the identification of two of the city gates – one in the northwest and one in the west of the circuit – is also suggestive. While the former lies south of another narrow river valley, leading north toward ancient Kynaitha (modern Kalavryta), the latter was ideally positioned to provide access to the western end of the valley, and ultimately, to the Ladon valley, and the cities of Paos and Psophis to the southwest.905

5.3.2 The Fortifications

Although for the most part the fortifications of ancient Kleitor are relatively poorly preserved, at least 50 percent of its original course is still discernable on the ground to some degree (see Fig. 5.25). This extant section of the circuit is limited to the area south of the Karnesi River (and the modern agricultural road), which traverse the site from the northwest to southeast. Still, based on the survey of scattered architectural

904 Gell (1870:130).
905 Jost (1985:38) notes the strategic and communicative importance of these river valleys.
remains and modern field boundaries, much of the trace north and east of the river has also been plausibly reconstructed.\textsuperscript{906} It has been suggested that the changing course and periodic flooding of the Karnesi River over the centuries are responsible for the destruction of the remains in the north and east part of the city.\textsuperscript{907} Interestingly, a comparison of all the plans of the site published over a span of 175 years suggests that the parts of the circuit visible today appear to have always been visible.\textsuperscript{908} That is not to say, however, that the actual degree of preservation in the surviving sections has not changed. Indeed, the descriptions left to us by 19\textsuperscript{th} century travelers to the site demonstrate that much more standing architecture was visible above the ground than today.\textsuperscript{909}

The southern section of the circuit can be traced for ca. 1.50 km, and has been found to contain two gates and 14 towers, all of which are semicircular in shape [Fig. 5.28]. From the Northwest Gate, the western stretch of the circuit runs south and parallel to the eastern slope of Pantelemona Hill for ca. 600 m, where it meets the West Gate. From here, the wall continues south for ca. 200 m before turning east toward Kontra Hill. The southern stretch of the city wall (some 700 m in total) then ascends to the top of the western (and highest) peak of this low hill, before descending once again. Curving slightly to the northeast and then southeast, the wall follows the downward contour of the

\textsuperscript{906} Petritaki (2005:352-53).
\textsuperscript{907} Ibid. The area north of the river is also much more intensely farmed, and mechanized cultivation must also have played a significant role in the removal and destruction of parts of the wall in this area.
\textsuperscript{908} Cf. the plans of Leake (1830:2.258), Reinach and LeBas (1888: pl.34), Papandreou (1920:113), and Petritaki (2005: Fig.1). Although some have exaggerated the number of towers or the overall scale of the circuit, the general course of the wall in all these plans is remarkably similar.
\textsuperscript{909} See above, n. 158. Petritaki (2005:352) maintains that the only part of the wall standing above ground level to any appreciable degree is part of a tower on Kontra Hill. I was not granted a study permit for Kleitor. Unless otherwise cited, all photographs are based on personal observation from my visits to the site in the winter of 2010 and winter of 2011.
hill before making a sharp turn to the north. Finally, the circuit makes an oblique turn to the northeast where it meets the bed of the Karnesi River, after which traces of it disappear.

![Fig. 5.28 Plan of Kleitor (with tower numbers) after Petritaki (2005: Fig. 1)](image)

Although the site of Kleitor did not contain an acropolis and the vast majority of its fortifications were laid out predominately on flat terrain, the circuit cannot be considered the true horizontal type of city walls – the type best exemplified at Mantineia. The fortifications at Kleitor not only incorporated some elevated terrain, however diminutive or seemingly inconspicuous, but this terrain played an important defensive
role in the city defenses as a whole. The importance of this section is established by the fact that here, a stretch of wall less than 500 m in length accommodated eight of the city’s fourteen extant towers. Such a dense concentration of towers suggests that Kontra Hill played an active role in the general defensive strategy of the site, and consequently, the circuit at Kleitor is best understood as being of the uneven type.

The stone socle of the walls is about 4.25-4.50 m thick throughout and is comprised of isodomic courses of trapezoidal blocks with what appears to be pointed-face surface treatment [Fig. 5.29].910 The relatively evenly preserved foundations suggest they once supported a mudbrick superstructure. Furthermore, the curtain consists of an inner and outer facing of blocks with regularly spaced perpendicular courses of stone forming compartments within. While Winter surmised that the fill of the curtains was probably comprised of stone blocks, subsequent excavation has demonstrated the fill largely consists of densely packed rubble.911

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Despite their location in the circuit, all of the towers at Kleitor, as mentioned, are semicircular. With an average diameter of 7.50-8.50 m, these towers project ca. 4 m from the adjacent curtains [Fig. 5.30]. Although their foundations are largely constructed in a manner similar to the socle of the curtains, they were built to stand independently of them. Furthermore, Winter proposes that the “towers in the plain were generally ca. 35 m apart, but at times under 30 m—in any case more closely set than at either Mantinea or Orchomenos.” This assessment, however, must be approached with caution, as there is an inherent problem with his evaluation—a problem deriving from the fact that Winter appears to be employing a revised version of Papandreou’s plan of the walls, which, in turn is based on that of Le Bas [Fig. 5.31]. While Winter adjusts the

![Fig. 5.31. Plan of Kleitor by Winter (1989:197) after Papandreou (1920:113)](image)

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914 Petritaki (2005:353, Fig. 1).
915 Winter (1989:198). Even if the towers at Kleitor were spaced 30-35 m apart, Winter is wrong in his assertion that they are more closely set than those at Mantinea. As we have seen, the towers at Mantinea are spaced on average 25-26 m apart.
916 Le Bas (1888: Fig 3). On the problems with Papandreou’s plan, see Winter (1989:189, n. 1) and Meyer (1939a:109-10).
inflated scale of the plan, he seems to follow the number and spacing of the towers portrayed. Papandreou’s plan, however, testifies to the existence of 15 towers in the plain and 9 on Kontra Hill, when in fact, there are 6 in the plain and 8 on the hill. While Winter can be excused, as Papandreou’s plan was probably the most accurate at the time of his study, the most recent plan published by Petritaki, tells a decidedly different story. For example, the Tower 1 and Tower 2 are spaced ca. 160 m apart, with the former located ca. 220 m south of the Northwest Gate and the latter ca. 180 m from the West Gate. Moreover, approximately 80 m from the West Gate is Tower 3 and Tower 4, themselves separated by 40 m. The towers on the eastern half of Kontra Hill are the only ones that show any regularity in their spacing, averaging between 35 and 45 m.

In the surviving sections of the city wall, two and possibly three gates are attested.\footnote{Interestingly, as noted by Petritaki (2005:354-55), the locations of the two established gates are still traversed today by small rural roads. The discovery of an ancient cemetery just outside the southeast part of the circuit, where the walls meet the bed of the Karnesi River, has been taken as evidence for the possible existence of a third gate in this area.} The first, located in the extreme northwest part of the city, is appropriately referred to as the Northwest Gate. This gate opened on a north-south axis, appears from
the plan to have been a simple frontal gate, and had at least two different building phases [Fig. 5.32]. The second gate, however, is much more interesting architecturally. Located some 600 m south of the Northwest Gate, at the foot of Pantelemona Hill, excavations have revealed half of the so-called West Gate [Fig. 5.33]. Oriented on an east-west axis, the West Gate was of the gatecourt type. Essentially a large rectangle, it was accessed externally by a small frontal opening in the wall, which in turn leads to two separate courts. The outer court was protected by a small semicircular protrusion on the south, on which defenders could mass, and separated from the inner court by a small door. Also on the south side, excavators found the remains of four column bases, suggesting a propylon-like entrance for pedestrians, as well as traces of a ramp for carts. Finally, like the Northwest Gate, excavations have revealed at least two phases of construction on the West Gate.

5.3.3 Strategy, Tactics, and Defensive Planning

The decisions to found the settlement at its present location and to eventually construct a sizable fortification circuit were not made lightly nor arbitrarily. In fact, the valley, the location of the city within it, and the fortifications, were individual elements, which when taken together, operated to ensure the security of the inhabitants. As we will see, the overall defensive planning that incorporated these elements was dictated largely

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918 Petritaki (2005:354). It is unclear from the plan whether a tower flanked the left side of the opening, though I suspect that this is the case.
919 The southern half of this gate is preserved, from which the form of the other half can be extrapolated (ibid).
920 Ibid.
921 Ibid.
922 Ibid.
by the strategic and tactical considerations that were both typical of the time and intrinsic to the natural topography of the Kleitor valley.

The location of the valley itself played no small part in the history of the city, as it occupied a valuable strategic sector of Northern Arkadia.\textsuperscript{923} Its location not only commanded an important north-south route between central Arkadia and Achaia and the coast, but also the eastern end of the Sireos river valley – a significant east-west passage running the length of northern Arkadia between the Pheneos Valley and Elis. In order to complement the commercial and strategic importance of the valley, the city was ideally situated for controlling the traffic through the territory. Located toward the western end of the valley, occupying almost its entire breadth, the position of the city demanded that traffic progressing along the most accessible routes from both Kynaitha to the north and Paos to the southwest would have to pass through – or at least very near – the city itself. Although the immediate commercial and strategic benefits of this arrangement are evident, ultimately, the defensive considerations were paramount. Accordingly, it was the considerable natural defenses immediately surrounding the site itself that must have been the decisive factors in the architects’ evaluation and eventual choice of this location in which to build and fortify their city.

Foremost among the natural defenses of the valley are the two rivers, the Kleitor and the Karnesi. The River Kleitor, originating in the southwest corner of the valley skirts the southern part of the valley (and the ancient site) in a northeasterly direction (see Fig. 5.27). The Karnesi, as mentioned, originates northwest of the site, near the modern

\textsuperscript{923} Winter (1989:198) maintains that the importance of this valley “was responsible for its survival as a city down to the time of Pausanias and beyond.” Excavation and survey suggests that Kleitor remained an important trading center throughout the Roman period, and the administrative nucleus probably moved west, to the site of the present village Kleitoria, in the early Medieval period (Petritaki 1996:88).
village of Ano Klitoria, following a southeasterly course. The confluence of these two
rivers is located less than half a kilometer from the southeast limits of the ancient
settlement. Ancient Kleitor is well-situated in the fork caused by the course of these two
rivers. The course of the Kleitor River has altered little (if at all) from its course in
antiquity, and must have always formed a natural defensive barrier on the south side of
the city. The ancient course of the Karnesi, on the other hand, presents more uncertainty.
Although almost every published plan of the site shows the remains of the fortifications
extending to the north of this river, Winter maintains that “[the river] must have
coincided, more or less, with the line of the walls in the northeast sector of the city.”
The most recent work on the site, however, has traced much of the elusive northern part
of the circuit, demonstrating not only that the city was larger than previously thought, but
in antiquity, the course of the Karnesi River was further to the north. Thus, although he
had mistakenly judged the present course of the river to be the same as in antiquity,
Winter was correct in his assertion that the fortifications must have coincided with the
course of the river.

Nestled in the angle between these two rivers, Kleitor was provided with natural
defenses on its north, east, and south sides. Similar consideration of the defensive
advantages inherent in the topography of the valley is also evident in other parts of the
circuit. For example, although the west side of the city was devoid of any rivers, it was
not devoid of natural defenses. Here, the bulk of Pantelemona Hill, towering some 100 m

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924 The exception is Leake’s plan (1830:2,258). Nonetheless, beyond where he thought the northern trace of
the circuit wall was located, he did observe ancient remains in the “the whole cultivated plain included
between the river of Klitora and the river of Karnesi” (Ibid., 1830:258-59).
925 Winter (1989:198). The same opinion is implied by Leake (1846:224). It is these arguments which may
account for Winter’s (and others) underestimation of the area of the intramural space (e.g., Winter
above the city along its entire western flank, formed an effective natural obstruction in this direction. The inclusion of the low Kontra Hill into the overall defensive scheme of the city was also strategically significant.

In their choice for the location of the site – one surrounded on all sides by hills and rivers – the town planners effectively exploited the natural topography of the valley to a considerable strategic advantage. Moreover, we see in the extant fortifications and its constituent parts, tactical considerations designed to both complement the natural strength of the site and limit its weaknesses. On the west section of the circuit between the two gates, for example, we find only two towers (Towers 1 and 2). The relative lack of man-made defenses along this stretch suggests the confidence inspired by the Pantelemona Hill in keeping enemies at a distance from the walls. The dimensions of this hill meant that any approach to the city from the west would be limited to a narrow stretch of land (ca. 400 m wide) defined by the southern slope of Pantelemona Hill and the banks of the Kleitor River [Fig. 5.34]. Without the protection of a river or natural elevation, this section was the most vulnerable part of the circuit south of the Northwest Gate. It is with an aim to protect this approach, therefore, that the southwestern and southern sections of the circuit were devoted.

In the short stretch of wall south of the West Gate, in the section immediately opposite this narrow western approach, there were two closely set semicircular towers. While Tower 3 was placed close enough to provide enfilading for the approach on the West Gate, and Tower 4 was in a position to cover a more southerly approach toward

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927 A hill of this elevation and proximity to the city not only formed an effective defensive barrier, but would also have been offensively advantageous if held by an enemy. In times of danger, therefore, control of this hill must have been of primary importance.
Kontra Hill, the semicircular shape of both towers also ensured 180° coverage of the open terrain immediately opposite them – i.e., the 400 m wide stretch of land comprising any western approach. If an aggressor was so bold as to attempt to skirt these southwestern defenses and challenge Kontra Hill directly by sticking close to the banks of the Kleitor River, they would find themselves confronted by the most intimidating part of the city defenses [Fig. 5.35]. Indeed, the relationship between the topography of the site and the fortifications of Kleitor was at its most effective in the defenses of Kontra Hill.

An approach from the west along the southern part of the city would first be met by two more semicircular towers (Towers 5 and 6). Artillery from these towers would have

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928 It might seem strange at first glance that no tower was placed in the southwest corner of the circuit where the western wall meets the southern stretch. The theoretical 180° field of fire provided by the towers’ semicircular shape, however, suggests that this area of the wall would have been sufficiently protected by both Tower 4 and Tower 5.
easily covered the short strip of land between the walls and the Kleitor River. To the northwest of these towers lies Kontra Hill, which although rising to a height of less than 20 m, was tactically crucial to the southern defenses of the city.

This hill, roughly crescent-shaped, rises steeply to its highest point on its western end, before descending gradually toward the northeast and then southeast. The fortifications follow the general contours of the hill and include five regularly spaced towers (Towers 7 to 11), followed by three more at the lower southeastern section of the hill (Towers 12 to 14). Furthermore, as this hill rises almost directly from the north bank of the Kleitor River, there is only the narrowest sliver of practicably traversable land between it and the river. Thus, any approach from the west would be forced to navigate the bottle-neck effect produced by the hill and its imposing artillery towers on one side and the river on the other. Although this hill cannot be considered an acropolis in the normal sense, taking advantage of the high ground in this part of the circuit suggests the defenses of Kontra Hill were “intended primarily to block assault from that quarter, while still controlling the route along the valley of the Kleitor river.”

The discussion of Kleitor’s defensive planning has thus far been limited to the areas south of the modern course of the Karnesi River, where the surviving sections of

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929 As we have seen, this relationship between the natural topography and the fortifications is paralleled at the approach toward the Pheneos Gate at ancient Symphalos.
the fortifications are known. Of the largely lost north and northeastern sections of the circuit, we can add little but conjecture. It is certain, however, that these parts of the fortifications traversed level and open ground. If the original course of the Karnesi River did more or less follow the walls north and northeast of the city, we might expect to see the use of bridges and/or gates in a similar arrangement to Mantinea or Stymphalos. Moreover, as demonstrated at other Arkadian sites, the use of regularly spaced rectangular or semicircular towers in this area would be equally viable options. At Mantinea and Stymphalos, for example, we see rectangular towers protecting the open and flat areas beyond the fortifications. And from Pheneos and Stymphalos, it is clear that the use of semicircular or rectangular towers within the same circuit was not uncommon. Finally, whether predominately rectangular or curvilinear towers were installed along the flat parts of the circuit, the chronology of the fortifications at Kleitor suggest the possibility that one or more large artillery bastions, characteristic of the Hellenistic period, may have enhanced this, now lost, part of the city defenses.

5.3.4 Chronology

In his brief survey of the fortifications of Kleitor published in 1989, Winter maintains that “the walls of Kleitor are obviously quite different in concept from these of either Mantinea or Orchomenos.” He is, of course, correct. Mantinea was a city almost twice the size of Kleitor, laid out completely on flat ground, and which employed predominately rectangular towers, while the fortifications of Orchomenos were limited to the acropolis of Kalpaki Hill, incorporated no open terrain, and were considerably shorter in overall length. On the other hand, as we have seen, the circuit of Kleitor, although

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largely laid out in the plain, did assimilate some high ground, contained only semicircular
towers, and extended for a considerable length. Still, it is difficult to understand, how, in
his attempt to establish a chronology of the walls based on these perceived differences,
Winter reaches the conclusion that “that the defensive system [of Kleitor] is much more
sophisticated in design than anything at either Mantinea or Orchomenos.”932 In fact,
although the system at Kleitor demonstrates a conscientious defensive plan characterized
by its efficient use of the natural topography, I would argue that there is nothing original
or especially sophisticated about it.

For example, the use of rivers or streams as natural defensive boundaries have
parallels at both Stymphalos, and as outlined below, at Psophis and Paos also. Similarly,
if the Karnesi River did originally flow immediately outside the northern and eastern
walls of Kleitor, then its function as an outwork is analogous to the use of the Ophis at
Mantineia. Furthermore, the incorporation of some elevated terrain in a circuit otherwise
laid out over predominately flat and open ground is also the strategy employed at
Stymphalos. The use of only one tower shape throughout the circuit, moreover, can be
seen at ancient Alea and Orchomenos. As for the curtains, not only is the masonry used
similar to Mantinea, but Winter himself admits that those of Kleitor are “about the same
thickness as at Mantinea.”933 Finally, even the gatecourt at Kleitor – the circuit’s most
distinctive feature – has parallels at Mantinea and Stymphalos. Owing to the
archaeological data, the written sources, and appropriate comparanda, however,
establishing a plausible chronology for the walls of Kleitor is not without hope.

933 Ibid.
We know from Polybius that in 220/19 BCE, the Aitolians carried out an unsuccessful siege of the city of Kleitor.\(^{934}\) It is safe to assume, therefore, that the fortifications as they exist today were likely in place by that time. Although this account provides a convenient *terminus ante quem*, it does not answer the question of when the circuit was constructed. During the excavation of parts of the West Gate, Petritaki discovered two building phases, both of which were identified as belonging to the Hellenistic period.\(^{935}\) Although admitting the difficulties they encountered in dating the earliest phase, based on the principles of the typology and evolution of siege warfare, Petritaki tentatively dates the initial phase of construction to the late fourth century BCE.\(^{936}\) This date is fairly consistent with excavations of other parts of the curtain (and at least one tower), which again, she maintains belong to the Hellenistic period.\(^{937}\)

Petritaki seems to follow the opinion of Winter, who is more specific in his analysis, stating that the towers of Kleitor are of the second generation type and should not pre-date ca. 300 BCE.\(^{938}\) Although the problems of Winter’s assessment of the tower spacing has been discussed above, of those towers he did observe, he correctly states that they are indeed larger than those of Mantineia and Orchomenos.\(^{939}\) To add further weight to his argument for the existence of second generation towers, Winter observed at “the southeast angle….a large battery [12 m wide], perhaps of pentagonal plan.”\(^{940}\) Unfortunately, he is no more specific as to its precise location and no other published

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\(^{934}\) Polyb. 4.19.
\(^{935}\) Petritaki (2005:353-54).
\(^{936}\) Ibid., (2005:354)
\(^{937}\) Ibid.
\(^{939}\) Ibid., (1989:199). Furthermore, the towers at Kleitor are also larger than the first generation semicircular towers at both Stymphalos and Pheneos.
source mentions this installation. Nonetheless, although we may differ on the details, I think that Winter is essentially correct in his belief that the topography of the area indicates that the people of Kleitor relied on a fortification system that permitted extensive use of defensive artillery for their security.\textsuperscript{941} Therefore, while it may be hard to imagine that the city remained unfortified throughout the Classical period, the available evidence suggests that the original circuit does belong to the Hellenistic period. More specifically, as it is consistent with the archeological, typological, and literary evidence, I would recommend a date sometime in the late fourth or early third century.

5.4 Ancient Psophis

As seems to be the case with so many of the minor Arkadian settlements, the history of ancient Psophis is clouded in uncertainty. Fortunately, the paucity of surviving archaeological and literary evidence does provide at least some confirmation of Psophis’ political and tribal identity. While Polybius tells us that Psophis was an Azanian community, the political implications of which having been discussed above, he is also the first written source to explicitly refer to the city as \textit{a polis}.\textsuperscript{942} There are other clues, however, which suggest that the city’s identity as \textit{a polis} can be traced back to at least the Classical, if not the Archaic, period.\textsuperscript{943} At Olympia, for example, an inscribed shield dedicated collectively by Psophis has been discovered and dated to the sixth century BCE.\textsuperscript{944} This suggests a military activity of some sort in the Archaic period, and may be related to the statue of Zeus at Olympia, described by Pausanias “as dedicated by the

\textsuperscript{941} Ibid., (1989:199).
\textsuperscript{942} Polyb. 4.70.3-4. On the Azanian tribe, see above n. 149.
\textsuperscript{943} For stray Archaic finds on the site, see Jost (1985:57).
\textsuperscript{944} SEG 24 299.
Psophidians for a success in war."  

Furthermore, although no inscriptions have been discovered indicating whether any proxenoi resided in the city, Pausanias does mention a sculptural group at Olympia which he thought represented proxenoi of Psophis from Elis. 

Finally, inscription fragments unearthed at Delphi in the early 20th century reveal that a Delphic theorodokos resided in Psophis in the late third century BCE. 

The story of Psophis begins in the mythological past. Apollodorus tells us Herakles’ fourth labour was to capture the Erymanthian boar, “[after] that animal ravaged Psophis.” A generation or so later, it was said that the people of Psophis “took no part in the expedition [against Troy, having] incurred the enmity of the leaders of the Argives.” 

Moving from the shadows of prehistory to the light of recorded history, we in fact find very little illumination. Indeed, besides the sixth century BCE military activity suggested by the shield found at Olympia mentioned above, we know exceedingly little about the history of this small city during the Archaic and Classical periods. For example, as the city is not mentioned as part of any larger organization, political or otherwise, during these periods, it is unclear whether Psophis was a member of the Peloponnesian or Arkadian Leagues. 

We are left to wonder: if it was not for

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945 Paus. 5.24.2; Nielsen (2002:589-90).
946 Head (1963:453).
947 Paus. 6.16.7; Nielsen (2002:590). Pausanias gives no hints as to the date of this sculptural group.
948 Plassart (1921:II.120ff).
949 Apollod. Lib. 2.5.4. For a summary of the mythological past of the city, see Pausanias 8.24.1-14.
950 Paus. 8.24.10.
Philip V’s attack on the city in the late third century BCE, would Psophis be known to us at all?

At the time of the Social War, Polybius tells us that Psophis was in the possession of a garrison from Elis.\textsuperscript{952} Located on the borders of Arkadia, Elis, and Achaia, the city was of considerable strategic importance. Wyse supposes that “Psophis was very wavering in its alliances, adhering however mostly to the Eleians as a balance against the ruder Arkadian power which pressed it in rear.”\textsuperscript{953} In any event, as Philip V had entered into an alliance with the Achaian League against the people of Elis and Aitolia, in the winter of 219/18 BCE, a Macedonian and Achaian army marched on Psophis. Polybius’ records that Philip “stationed his men, who had ladders at three different spots, and divided the other Macedonians among these three parties…and began the assault on the walls at once.”\textsuperscript{954} Despite the formidable natural and man-made defenses of the town, after a brief resistance the Elian soldiers fled to the acropolis, which soon capitulated as well. After the successful siege, Philip left a garrison of Achaians to guard the city while the Psophidians themselves “received back the possession of the town.”\textsuperscript{955}

Whether drawn to the site by its mythological past, by the well-documented siege of Philip, or by its impressive topography, ancient Psophis had a lot to offer the early travelers. Around the middle of the second century CE, Pausanias made a visit to the site on his way to Pheneos.\textsuperscript{956} Regrettably for us, being totally consumed by the city’s mythological past, Pausanias offers next to nothing concerning the actual physical

\textsuperscript{952} Polyb. 4.70-72.
\textsuperscript{953} Wyse (1865:2.161).
\textsuperscript{954} Polyb. 4.71.
\textsuperscript{955} Ibid., 4.72. As Polybius’ account concerns both the topography of the town and its fortifications, it will be addressed in more detail below.
\textsuperscript{956} Pausanias 8.24.1-14.
remains. Although seemingly always destined to be overshadowed by an interest in the surrounding landscape, the archaeological remains of Psophis were ‘rediscovered’ and described, to varying degrees, by a number of 19\textsuperscript{th} century travelers. While all of these writers were taken with the majestic scenery afforded by the location of the site – often writing extensively about it – most fortunately also had cause to mention the fortifications. Leading the way in this regard were the German travelers Curtius, Bursian, and Welcker, whose descriptions of the Psophidian fortifications remained the most detailed until the very end of the century.

From the late 19\textsuperscript{th} through the 20\textsuperscript{th}, and into the 21\textsuperscript{st} century, rarely has a decade passed that did not see published discourse on some aspect of ancient Psophis, which, more often than not, contain at least a passing reference to the fortifications. While the mention of the site and the walls was peripheral in some of these publications, in others, Psophis was more central to the discussion at hand. Notable contributions in this category include those of Frazer, Papandreou, Meyer, and Jost. It is the work of Pritchett, however, that continues to be one of the standards for the walls of Psophis. His topographical description of the site – including a detailed account of the circuit’s visible ruins – as well as his historical analysis of Philip’s siege, remains one of the finest works on the subject. Last, but certainly not least in the history of scholarship on the site,

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957 E.g., his observations were limited to a sanctuary of Aphrodite Erycine (8.24.6), the hero-shrines of Promachus and Echephoron (8.24.7), and a temple to Erymanthus (8.24.12).
958 E.g., Gell (1817:122); Leake (1830:2.240-50); Boblaye (1836:158); Curtius (1851:1.385-90); Bursian (1862:2.260-62); Wyse (1865:2.161-70); Welcker (1865:1.290-94). Early plans of the site are provided by Leake (1830:2.pl.1), Curtius (1851:1.pl.8), and Papandreou (1920:130).
959 E.g., the site and/or fortifications of Psophis are briefly touched upon by Hiller von Gaertringen and Latttermann (1911:7); Bisbee (1937:532); Scranton (1941:170); Winter (1971a:32); and Lawrence (1979:478).
960 Frazer (1898:4.282-83); Papandreou (1920:130-46); Meyer (1959:1421-28); Jost (1985:53-60).
concerns the archaeological work at present being conducted at Psophis.\textsuperscript{962} Initiated by the 6th Ephorate of Prehistoric and Classical Antiquities of Patras, archaeological investigations began at the site in 2001, the preliminary results of which have been published by Petropoulos.\textsuperscript{963} Besides the cleaning of standing remains, digging the occasional test pit, and the search for the city’s temples, one of the aims of this project was the clearing of the fortification circuit. Accordingly, not only did the clearing of the walls reveal “almost its whole perimeter [but it] was established that there were towers in every part of the wall [and a] new gate was located in its western part.”\textsuperscript{964}

5.4.1 Geography and Topography

In his account of his travels in the Peloponnese, Leake writes, “among the remarkable positions with which Greece abounds, and which seem to have been intended by Nature for the strong holds of small republics, Psophis is one of the most distinguished for strength and singularity of site.”\textsuperscript{965} To be sure, Psophis was bestowed with natural topographical advantages that were practically unparalleled by the situation of any other Arkadian polis. Polybius provides a colourful and accurate description of the landscape and is worth quoting in full; he writes:

\begin{quote}
Along the left side of it rushes a violent winter torrent, which for the greater part of the winter is impassable, and in any case renders the city secure and difficult of approach, owing to the size of the bed which its waters have worn out for themselves by slow degrees, in the course of ages, as it comes rushing down from the higher ground. On the east again there is a broad and rapid river, the Erymanthus, about which so many tales are told. This river is joined by the winter torrent at a point south of the town, which is
\end{quote}

\textsuperscript{962} Petropoulos (2005).
\textsuperscript{963} Ibid., (2005:363).
\textsuperscript{964} Ibid.
\textsuperscript{965} Leake (1830:2.241).
thus defended on three sides by these streams; while the fourth, or northern, side is commanded by a hill, which has been fortified, and serves as a convenient and efficient citadel.966

Although Polybius does not mention its name, the “winter torrent” to which he refers is the Aroanios River.967 This river flows in a southeasterly direction past the west side of the city where it meets the Erymanthos, which flows to the southwest and flanks the southern part of the city.968 These rivers converge about 100 m south of the site, where they are united with a third stream, the Lopesi or Sireos River [Fig. 5.36].969 The city of Psophis was not only ideally located in the angle between these rivers, but also included the ‘fortified hill’ mentioned by Polybius.

966 Polyb. 4.70.
967 The modern name of this river is recorded as the Nousaïtiko River by Papandreou (1920:130) and Jost (1985:53) and as the Poretse or Germoutsani by Frazer (1898:4.282).
968 The Erymanthos’s modern incarnation is the Livartsino River. Petropoulos (2005) inexplicably mixes up the Erymanthos and the Aroanios Rivers, placing the former on the west and the latter on the east. Perhaps he is following the plan of Papandreou (1920:130) which is also mislabeled. Meyer (1959:1422) and Pritchett (1989:3) dispute Papandreou’s interpretation of Polybius and his reversal of these two rivers.
969 As Frazer (1898:4.282) reminds us, it is “from these three rivers the place takes its modern name of Tripotamo, or ‘Three Rivers’.” The modern village of Tripotama is located southeast of the site, while just north of the ancient Psophis can be found the small village of Psofis.
This hill rises steeply between the two rivers, though less so on the east. Although roughly conical in shape, this hill, rising ca. 70-80 m above the surrounding city, contains a sharp rocky crest which extends to the peak in a northeasterly direction from the Aroanios River valley [Fig. 5.37]. The lower southwestern part of this ridge is separated from the highest part of the summit to the north by a narrow saddle. The fortifications embraced this ridge and its spurs for most of its northern course – a stretch comprising about half the total length of the circuit. The other half of the circuit was laid out just north of the Erymanthos. The fortifications thus enveloped and defined the settlement which occupied the whole southeast side of the hill [Fig. 5.38]. Finally, immediately opposite and parallel to the southeast side of the site, on the other side of the Erymanthos, is a small crescent-shaped ridge. As noted by several scholars, it is likely from this ridge that Philip’s army launched their assault on the city in 219/18 BCE.970

Although today the site and modern village of Psophis fall within the Prefecture of Achaia, in the past, wavering allegiances aside, Psophis and its territory were part of

970 For a detailed account of the siege of Philip and the topography of the site see Pritchett (1989:22-28).
Arkadia. Moreover, as the northwestern most Arkadian *polis*, Psophis shared a border with both Achaia to the north and Elis to the west.\textsuperscript{971} Within Arkadia itself, to the east was the *polis* of Paos – separated by only a chain of small hills and accompanying valleys.\textsuperscript{971} Incidentally, the modern village of Tripotamia is the exact point where the prefectures of Arkadia, Achaia, and Ilia still converge today.

\textsuperscript{971}
– while to the south of Psophis the bulk of Mt. Aphrodisio represented its border with the polis of Thelpousa. With the exception of some very narrow tracts of land west of the city adjacent to the Aroanios, the majority of the arable land is to be found southeast of the city in the Lopesi River valley. Exactly how much of this land belonged to Psophis is not clear, but it must have controlled the valley at least to the proximity of the city of Paos, located some 8 km to the east. The total territory of Psophis, however, is estimated to have comprised ca. 280 km².

Finally, both the commercial and strategic importance of its location cannot be overstated – a point certainly not lost on Philip V and the Achaian League. Psophis’ location commanded major roads to Achaia via the Erymanthos to the north, Elis, via the Aroanios to the west, and it straddled some of the most accessible and politically significant routes into central and northern Arkadia and the southern Peloponnese beyond. Indeed, as mentioned, the majority of the city’s arable land was located in the Lopesi River valley. This valley and those beyond together must have constituted a major artery in antiquity, as they run in an east-west direction across northern Arkadia, from Psophis all the way to the western edge of the Pheneos basin.

5.4.2 The Fortifications

Most of the fortification circuit of ancient Psophis endures today, exhibiting varying degrees of preservation throughout its course. While the corrosive effects of time, including the penetration of tree roots into parts of wall, have caused the displacement or concealment of some parts of the walls, Petropoulos asserts that most of

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972 On his way from Psophis to Thelpousa, Pausanias observed near the Ladon River a boundary stone on which was recorded in Archaic script, “The boundary between Psophis and Thelpousa” (Paus. 8.25.1).
973 I was not granted a study permit for Psophis. Unless otherwise cited, all photographs are based on personal observation from my visits to the site in the fall of 2009 and spring of 2011.
the damage has resulted from the appropriation of blocks for the construction of buildings in the modern village of Tripotamia. In 2001, as mentioned above, the Greek Archaeological Service began a series of archaeological investigations at Psophis, one of the primary aims of which was to clear the entire fortification circuit. These investigations not only revealed that stone foundations of nearly the entire circuit can still be traced, but as confirmed by early travelers to the site, that the different sections of the wall have survived in various degrees of preservation. Before discussing the line of the fortifications, however, it is important to note that while estimates on the enclosed area of the walls differ, that they incorporated both a relatively flat, low-lying section of terrain as well as integrated an acropolis of considerable bulk, indicates that the system at Psophis represents the uneven-type of fortifications.

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975 Meyer (1959:1424), for example, suggests an enclosed area of 80 ha, while Petropoulos (2005:364), presumably following Papandreou (1920:138), maintains (an incredible) 800 acres (= 324 ha). Both estimates are certainly too large, and is more likely closer to around 40 ha.
976 The question of whether the acropolis was fortified separately is addressed below.
From the steep north side of the acropolis, the wall descends for ca. 50 m due north before making a ninety degree swing to the east. From here, the wall follows a general easterly course, descending down the crest of a similarly oriented ridge [section B on Fig. 5.38]. This section of the wall is the best preserved part of the entire circuit. The uppermost 100 m section from the acropolis is extremely steep, while the trace 300 m to its east descends more gradually until it reaches the modern road [Fig. 5.39].\textsuperscript{977} To the east of this road, the wall continues its southeast descent towards the Erymanthos river [section Γ on Fig. 5.38] [Fig. 5.40]. This part of the wall is characterized by a number of short curtain lengths (ca. 50 m each) interrupted by a number of jogs in the course.\textsuperscript{978} The resulting irregular stretch in this section of this circuit – which turns first to the southwest, then to the south, then east, southeast, east, and finally toward the southwest –

\textsuperscript{977} While on either side of the road the line of the wall can be easily discerned, the modern road has, of course, destroyed traces of the wall.

\textsuperscript{978} Based on Petropoulos’ plan, it is clear that more of this stretch was visible in 2001 then at present. On both of my visits to the site – in the spring of 2010 and winter of 2011 – only the stretches of curtains on either side of the first jog in the wall were visible.
likely mirrored the original topography of this area immediately northwest of the Erymanthos river valley. Subsequently, although next to nothing remains, presumably the curtain continued to follow the flat course determined by the topography on the northwest side of this river valley, in a southwesterly direction towards the modern village [section A on Fig. 5.38]. Explaining the lack of remains along the southeastern branch of the circuit, Petropoulos maintains that this part of the wall, being located in the flatter part of the area, was one of the prime quarries for buildings in the modern settlement.979

The extreme southern part of the circuit – at the confluence of the two rivers – has also suffered the degradations caused by 19th and 20th century construction and the reuse of its materials. Indeed, as it is located in what is now the area of the main plateia of the modern village, no remains can be seen here. Northwest of the village, however, the circuit resumes its course and much of it is visible and fairly well preserved [section A on Fig. 5.38]. Like the southeast side of the city, in the southwest, the wall also follows the relatively flat course dictated by the topography of a river valley, here the Aroanios [Fig. 5.41]. From the village, the city wall extends for ca. 60 m to the northwest, before making a sharp turn to the northeast and continuing for some 125 m. Subsequently, the wall then makes another sharp turn, this time due north, and continues for ca. 100 m before traces of it disappear. Based on the remains of a ca. 75 m stretch of wall found further up the hill to the east in a small saddle, it appears that somewhere near the point where we lose track of the trace, the city wall must have turned toward the northeast, crossed the modern village road north of the theatre, before beginning its ascent toward the acropolis and joining the extant section just mentioned [No. 14 on Fig. 5.38]. Finally,

979 Petropoulos (2005:366-67). Conversely, Wyse (1865:2.170) argues that the siege of Philip and/or the changing course of the Erymanthos River are responsible for the destruction of this part of the circuit.
it is uncertain whether the wall continued the final ca. 250 m all the way to the acropolis, or whether the steep and rugged topography characteristic of this part of the hill provided sufficient natural defense.

Fig. 5.41. View of southwest fortification wall (facing SW)

On the acropolis of the site stands the ruins of a small Frankish citadel, and the question remains whether it overlies an earlier enclosure that was more or less contemporary with the rest of the circuit.\textsuperscript{980} Leake was the first to address this question and admitted that “[while] there was probably a citadel on the summit…[he] could not trace the enclosure of it.”\textsuperscript{981} A century and a half later, Pritchett similarly failed to find traces of an earlier circuit, and was resigned to the fact that although “one sees sections of walls in various parts of the site, [there is] no obvious line of an inner acropolis wall.”\textsuperscript{982} Finally, while also recognizing the fact that the Frankish constructions have either destroyed or masked the earlier enclosure, Petropoulos is hopeful that future

\textsuperscript{980} I was unable to investigate the remains here as presently the whole acropolis is fenced off and remains closed to visitors.
\textsuperscript{981} Leake (1830:2.242).
\textsuperscript{982} Pritchett (1989:28).
investigations of the site by the Ephoreia of Byzantine Antiquities will shed more light on the matter.  

As suggested by the best surviving sections of the wall’s foundations, which clearly exhibit a flat surface, the fortifications at ancient Psophis were constructed of mudbrick set atop a foundation of stone blocks [Fig. 5.42]. The curtains were constructed with parallel faces of blocks, with an average width of some 2.50 m, and filled with rubble and presumably earth [Fig. 5.43]. The blocks were laid horizontally in the usual manner and there is no evidence that stretchers were employed. Furthermore, as is so often the case, a number of travelers to the site over nearly two centuries has produced an almost equal number of designations as to the style of the masonry in the walls of Psophis. In the most familiar modern terminology, Scranton suggests that sections of the wall belong to two categories: part belongs to the class of isodomic trapezoidal with

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985 E.g., “The masonry is moderately regular” (Frazer 1898:4.282); “The walls, of fairly regular blocks” (McAlister 1976:741); “nearly rectangular as, for example, at Psophis” (Bisbee 1939:532); “walls built of small stones without mortar” (Leake 1830:2.242-243); “wall of good construction” (Wyse 1865:2.167); “Hellenische Mauern” (Curtius 1851:1.387).
quarry face, and other parts are better characterized as pseudo-isodomic trapezoidal.\textsuperscript{986}

Although he likely never visited the site and his classification is admittedly based solely on photographs, it is clear that Scranton is essentially correct [Fig. 5.44]. The only observable pseudo-isodomic, however, was limited to the lowest courses of the towers in the northern stretch of walls. It remains uncertain, therefore, whether true pseudo-isodomic exists at the site, or whether the longer, narrower blocks were employed instead only in the construction of the towers’ foundations.

In light of the most recent investigation, Petropoulos concurs with Scranton’s general assessment of a mixed system, but takes it a step further, recognizing a third style of masonry which he describes as a combination of pseudo-isodomic trapezoidal and polygonal.\textsuperscript{987} This style of masonry appears to be limited to the northeast section where the wall falls sharply toward the river south of the modern road [section Γ on Fig. 5.38] [Fig. 5.45]. Petropoulos suggests that the larger trapezoidal blocks likely belonged to the original face, and were perhaps only later combined with the smaller polygonal blocks in

\textsuperscript{986} Scranton (1941:171, 174).
\textsuperscript{987} Petropoulos (2005:365).
an effort to repair the wall following the siege and destruction of the city by Philip V in 219 BC.\cite{988}

![Fig. 5.45. Northeast section showing mixture of trapezoidal and polygonal masonry (facing NW)](image)

The fortification circuit of Psophis appears to contain at least 18 towers.\cite{989}

Beginning in the longest extant section of wall – which descends the northern ridge from the acropolis toward the Erymanthos river [section B on Fig. 5.38] – Petropoulos and his team cleared and identified eight towers, all rectangular [Fig. 5.46].\cite{990} Papandreou

![Fig. 5.46. View of Tower 4 (facing SW); and b) View of Tower 7 (facing SE)](image)

\cite{988} Ibid.

\cite{989} Unfortunately, in his brief publication, Petropoulos does not provide the dimensions of any of the towers. The towers are certainly relatively small and based on personal observation, I would estimate them to be on average 5-6 m across the front and extending 3 or 4 m from the curtains.

\cite{990} The towers labeled with numbers on Fig. 5.34 are provided by me for convenience and do not appear on the original plan. Those numbers with question marks denote those which appear to be towers on Petropoulos’ plan but are not referenced otherwise in his text.
identified seven towers along this stretch of wall, presumably failing to notice the 
remains of Tower 2, which appears to be fairly poorly preserved.991 Although regular in 
places, the spacing of these towers is generally inconsistent. Those higher up the ridge 
and closer to the acropolis, for example, are more closely placed than those below, with 
Towers 1 and 2 separated by 30 m, and Towers 3 and 4 by only 20 m.992 Further to the 
est, with a separation of 75 m, Towers 4 and 5 are located the furthest apart. It is only in 
the spacing between Towers 5 and 6, 6 and 7, and 7 and 8 that any kind of regularity 
appears, separated by 50 m, 50 m, and 40 m respectively.

As mentioned, west and to the south of Tower 8, the circuit appears to continue in 
a series of short angular stretches following the topography dictated by the Erymanthus 
River [section Γ on Fig. 5.38]. Although Papandreou observed seven rectangular towers 
in this area, as noted by Petropoulos, the amount of visible remains here is minimal.993 
Based on Petropoulos’ plan of the site, however, it appears that at least as many as four 
rectangular towers (nos. 9-12) may have existed in this part of the circuit. Unfortunately, 
the southern stretch of walls flanking the river [section Δ on Fig. 5.38] is no more 
forthcoming concerning the number or types of towers that once existed here. While 
Lawrence interprets the lack of remains here to suggest that “no towers seem to have 
existed,”994 certainly the reuse of the materials for the modern village is an explanation 
that is closer to the truth.

991 Papandreou (1920:130). Today the remains of Towers 1 and 2 lie within the fenced off area; see above 
n. 980.
992 Unless otherwise stated, as I was not granted a study permit for this site, all measurements provided are 
estimates based on Petropoulos’ plan.
993 Papandreou (1920:130); Petropoulos (2005:366). Petropoulos states that this section was to receive 
more intensive study in 2003, but nothing has been published and it remains uncertain whether such work 
was ever carried out.
994 Lawrence (1979:478).
Indeed, at least in the southern part of the circuit the appropriation of visible stone blocks from the ancient city wall was practiced, since it provided the closest source for obtaining the necessary construction materials for use in the modern village. The reuse of such material – especially in this area – may perhaps explain why today nothing exists of the circular tower observed by Bursian a century and a half ago.\footnote{Bursian (1862:2.261). A circular-shaped tower here, in presumably the southernmost part of the circuit, would be very practical as it could better command and observe the point where all three of the city’s rivers meet.} Although his description of its exact location is somewhat imprecise, it is clear enough that it stood in the southwestern corner of the ancient city, in the area now completely covered by the modern village.\footnote{This is the only attested example of a curvilinear tower at Psophis and Bursian’s observation is often cited by others. Frazer (1898:4.282), while not explicitly confirming the existence of the circular tower, does enigmatically hint that the walls “are defended by towers, mostly square” (emphasis mine).} Despite the limited picture the remains provided after such effective recycling of the ancient materials, and despite the fact that Papandreou observed no extant towers in the southwest and west parts of the circuit, Petropoulos and his team have identified the remains of at least six rectangular towers in these areas [section A on Fig. 5.38].

Similar to the other parts of the circuit, this section follows a course dictated by the surrounding topography, the regularity in the tower spacing is here most consistent. The length of curtain between Towers 13 and 14, between 14 and 15, as well as that linking 15 and the west gate are all approximately 50 m. In the area of the modern road to the northwest of this section, all traces of the circuit have been destroyed. When the remains reappear just north of the theatre, however, a small section containing a further three towers is visible rising northeast toward the acropolis. These towers, again all rectangular, are similarly spaced, although with slightly less regularity. Towers 16 and
17, for instance, are separated by 45 m, while Towers 17 and 18 stand some 65 m from each other.

Of the city gates which provided access to the ancient city, we know considerably less than the other elements of the fortifications. Only two candidates have been proposed, the evidence for both of which is far from conclusive. Papandreou maintains that the city’s main east gate was located just southeast of Tower 8, in the area where the modern road passes through this end of the site.997 Meyer, on the other hand, puts the eastern gate slightly below, or south of the modern road.998 Finally, Petropoulos, while acknowledging the existence of a gate somewhere in this area, does not provide any information pertaining to its precise location.999 Unfortunately, Petropoulos is equally vague concerning details about his team’s discovery of a second gate in the western part of the city. The remains of this gate – predicted by both Meyer and Pritchett and apparently confirmed in the 2001 investigations – lie just northeast of Tower 15.1000 Besides mentioning the discovery of a second gate and referring the reader to its location on the plan, however, Petropoulos mentions nothing of its form, orientation, or architectural details.1001 Even on the ground, what Petropoulos refers to as the western gate could easily be interpreted as a well-preserved stretch of curtain wall (see Fig. 5.41).1002 Until further evidence is provided and rationale is offered, ultimately, we can at best cautiously assume the existence of a gate in this section of the circuit to be probable.

997 Papandreou (1920:130).
998 Meyer (1959:1423).
1002 So conspicuous is this section – incredibly well-preserved and standing to a height of 4 m – Meyer (1959:1423), in fact, did mistake this ‘gate’ for a piece of the curtain.
5.4.3 Strategy, Tactics, and Defensive Planning

Although the defensive advantages apparent in the Psophidians’ choice of site for the location of their city has been touched on above, it is worth repeating here. Geographically, not only did the site command major strategic (not to mention commercial) routes between northwestern Arkadia and both Achaia in the north and Elis to the west, but topographically, the site itself effectively enhanced the inherent natural defensive strengths of its position with the addition of complementary defensive architecture. Certainly these advantages were not lost on Polybius, whose description of the site remains as succinct as it is precise when he writes “defended on three sides by…streams; while the fourth, or northern, side is commanded by a hill, which has been fortified, and serves as a convenient and efficient citadel.1003 Such advantages were, of course, not the product of chance, but the vision of military architects who consciously exploited the topography in order to maximize the defensive potential of the site.

Polybius’ description of the site underlies the primary defensive strategy in which the natural topography was engaged, where possible, to make the site defensible. First and foremost in this regard were the Erymanthos and Aroanios Rivers which provided a safeguard to the southeast and west sides of the city respectively. While the use of rivers as natural outworks was not uncommon in Arkadian defensive planning, at Psophis – unlike at Stymphalos or Kleitor, for example – the beds carved by these rivers (especially the Aroanios) were relatively deep and wide. As these rivers chiseled their way through the landscape over millennia, they not only left behind steep-sided riverbeds, but actually carved out a plateau, on the edges of which the fortifications could be employed to a

1003 Polyb. 4.70.
greater advantage. An enemy would first have to navigate the rivers – which were still “clear rapid streams”\textsuperscript{1004} in Frazer’s day – and then scale their steep banks before even reaching the walls;\textsuperscript{1005} the whole time under the watchful eyes (and presumably missile-fire) of the defenders. Besides protection against flooding and improved lines of sight, the main advantage of placing the circuit above the rivers on the edges of the plateau is that it provided no space at the base of the walls for enemy infantry to muster and launch a concentrated attack.

The strategic relationship between the topography of the site and the layout of the circuit is also evident in the incorporation of the high ground in the northern part of the settlement. Indeed, what made this hill such a “convenient and efficient citadel,”\textsuperscript{1006} was both its natural character and how the fortifications were positioned to intensify its already considerable defensive disposition. The numerous defensive advantages of incorporating high ground in the circuit are obvious and the point need not be repeated in more detail here. What is important to note, however, is the specific advantages inherent in the position and course of the northern wall. Although the sloping east-west ridge on which this stretch of wall lies seems almost impossibly well-suited for its purpose, the choice of laying out the wall here was only one of two options. At first glance, the other ridge, less than 100 m to the south and issuing immediately from the eastern limits of the acropolis, would seem an equally feasible option. In choosing the former ridge, however, the foresight of the Psophidian military architects is most clearly demonstrated. If, for example, the southern ridge was chosen as the site for the northern curtain, not only

\textsuperscript{1004} Frazer (1898:4.282).
\textsuperscript{1005} Even Polybius (4.70) could not fail to notice the steep riverbeds whose “waters have worn out for themselves by slow degrees, in the course of ages.”
\textsuperscript{1006} Ibid.
would the intramural space of the city itself have been reduced by some 25 percent, but,
more importantly, it would have left the other ridge, its adjacent saddle, and the high
ground north of the city outside the circuit. Such a scenario would conceivably have
made the north part of the circuit susceptible to an attack, especially if the enemy was in
possession of this high ground. Although such a scenario is hypothetical and ultimately
academic, since in the end the walls were built on the northernmost ridge, the tactical
components of the circuit themselves do reflect a concern for perceived vulnerable spots
in the trace.

While it may seem remarkable that Towers 1-4 – a third of the total confidently
attested examples in the circuit – exhibit the closest spacing and are densely grouped
along a stretch spanning less than 150 m, when considered in the context of the
surrounding topography, such a tactical consideration is easily understood. For these
towers seem to have held a single purpose: to observe and safeguard against any
unwelcome advance from the narrow saddle linking the acropolis to the hills to the north
(see Fig. 5.39). Not only was this saddle vulnerable because of its proximity to the
acropolis (less than 50 m) but as it straddled an east-west running ravine, this meant that
it could be approached from either the northwest or northeast via the Aroanios and
Erymanthos valleys respectively. The same concern for the more vulnerable parts of the
trace, reflected in the tactical arrangement of the circuit’s components, can also be seen in
other parts of the city.

As the northern section of the city wall left the protection of the heights and
descended eastward toward the Erymanthos, it was inevitable that it would have to
negotiate the open and the gently sloping ground between the terminus of the northern
ridge and the river [section Γ on Fig. 5.38]. In this area, where the topography of the site was frustratingly uncooperative for the larger defensive concerns, the military architects offered a practical solution. Not only are Towers 7 and 8 more closely spaced as the circuit approaches the flatter ground,\textsuperscript{1007} but instead of making a straight run toward the river, the curtain was constructed in the shape of a large concave semi-circle anchored between Tower 9 and Tower 11. Indeed, that this curvilinear section is the only part of the extant circuit as a whole that does not follow a course dictated by the topography of the site suggests a conscious decision – certainly one with a perceived defensive advantage. Such an advantage, similar to that of a formal gate-court, lies in the principle that an attacker attempting to storm this section would be drawn in only to find themselves assaulted by enfilading from both flanks. Furthermore, the proposed location of Tower 10 as extending out slightly in the centre of this concave stretch further strengthens the efficiency of this principle. Situating Tower 10 in the centre of the larger concave section – essentially creating two smaller concave sections – potentially doubled the amount of defensive flanking fire on each stretch of curtain without losing direct frontal power while at the same time reducing the distance these missiles would have to travel. Finally, this arrangement ensured that, whether from Tower 9 or 10, the unshielded right side of enemy infantry would always be exposed to defenders.

Despite the earlier claim by Papandreou that the eastern gate was located in the east of Tower 8 vicinity of the modern road,\textsuperscript{1008} based on the defensive considerations outlined above, it is more likely that the eastern gate should be sought somewhere in this area.\textsuperscript{1007} Based on the observed pattern of grouping towers close together in vulnerable sections, it is not inconceivable that a tower once existed between Towers 8 and 9 but was destroyed in the construction of the modern road. Certainly leaving an unprotected stretch of ca. 80 m between Towers 8 and 9 seems less probable.\textsuperscript{1008} Papandreou (1920:130).
concave section of the circuit. True, construction of the modern road has obliterated all traces of the fortifications and we cannot be certain, but the amount of rock cut away to make the road was considerable, as evidenced by the scar left behind [Fig. 5.47].

Fig. 5.47. Remains of northern curtain and the cutting of modern road (facing SW)

From the height of the bedrock visible on either side of the road and the surviving curtain atop, it appears that in antiquity the eastern end of the northern ridge must have extended across what is today the level of the modern road. Again, while it is not impossible that an area here was quarried in the past to make the terrain suitable for a gate, it is more likely that the eastern gate should be sought on terrain more appropriate to its function.
The concave section immediately suggests itself. In this scenario, all traffic moving southwest down the Erymanthos valley would be funneled into the concavity by a narrow (ca. 150 m), relatively flat stretch of land between the eastern limit of the northern ridge and the west bank of the river itself. As the stretch of curtain immediately south of Tower 11 lies mere feet from the west bank, this concavity can be the only terminus of a road (and, therefore, a gate) to Psophis from the Erymanthos valley.

While enough of the southwestern and western sections of the circuit survive to observe that it follows the edge of the plateau above the Aroanios with fairly regularly spaced towers – as may be expected with the consistent terrain – we know considerably less about the southeastern section of the city wall [section Δ on Fig. 5.38]. Of this area, Lawrence, somewhat paradoxically, writes that “no towers seems to have existed in the flat valley, where the wall, now lost, must have been perfectly accessible.” If true, not only would such an arrangement fly in the face of the pattern witnessed at Psophis and most other fortified sites, but also common sense. Certainly should we not expect to find towers precisely at those vulnerable points which were “perfectly accessible?” As the southwest part of the circuit, similarly laid out on the relatively flat terrain on the edge of the river, was fortified by a number of regularly spaced towers, it is feasible to suppose that this now lost section along the southeast contained a similar arrangement. Otherwise,

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1009 Polybius (4.71) does mention the defenders left through “a gate in the upper part of the town” to meet the forces of Philip. As Philip attacked from the Erymanthos side of the circuit, a gate in the area of the concave section – which stands at a higher elevation than would have the now lost trace along the river – would satisfy Polybius’ placement of it in the “upper part of the town.”

1010 Admittedly, it is possible that a gate(s) existed somewhere further to the south [section Δ on Fig. 5.38] and was only accessible by bridge(s). Indeed Polybius (4.71) does mention that Philip “led his army over the bridge across the Erymanthos.”

1011 Lawrence (1979:478). Despite the fact that Polybius states the position of Psophis “renders the city secure and difficult of approach” (Polyb. 4.70).

1012 In any case, the southeast part of the circuit was not that accessible as any approach would first require crossing and the climbing the steep banks of the Erymanthos.
we are left to believe that a ca. 1 km stretch of curtain wall was constructed without

towers – an arrangement, to the best of my knowledge, unparalleled at any other fortified
Greek city.

5.4.4 Chronology

As Philip V and his Achaian League allies marched on Psophis in the winter
of 219/18 BCE, discerning the mood of the Elian soldiers holed up within its walls can
only be guesswork. Were they confident the city’s strong position and formidable
fortifications would protect them in the end? Or, after hearing of the fate of Kleitor days
earlier, news which no doubt reached Psophis before the combined Macedonian and
Achaian army, did they feel their chances of survival were more indeterminate? We shall
probably never know. What we do know, however, is that after their arrival, Philip’s
forces “began the assault on the walls at once,” and the town was quickly surrendered.

Thanks to Polybius’ description it is safe to say that the fortifications of Psophis were in
place before 219/18 BCE. But can we determine when the fortifications were built? Is
there enough evidence? Petropoulos is doubtful. He maintains that not enough evidence
has surfaced from the excavations to determine a definitive chronology of its
construction. Moreover, he is also hesitant to rely on similarities to other Arkadian
fortifications – a method he feels is not always safe. Such reservations not
withstanding, and even if a chronology can not be established definitively, certainly
enough circumstantial evidence exists to provide an approximate date for the construction
of the Psophidian circuit.

1013 Polyb. 4.71.
1015 Ibid.
Assuming, as mentioned above, that the examples of pseudo-isodomic should instead be better understood as part of the foundation of some of the towers, and not a distinct masonry style characteristic of parts of the circuit, we are left to deal with the isodomic style which predominates at the site and presumably represents the first phase of construction. Scranton maintains that walls exhibiting blocks characterized as isodomic trapezoidal with quarry face surface treatment should be dated to ca. 425-375 BCE. While the shortcomings of stylistic dating have been discussed in Chapter 3, the date provided by Scranton provides – at the very least – a good starting point from which to examine the other elements of the Psophidian fortifications.

The dimensions, distribution, and structure of the towers can tell us much in this regard. The relatively modest dimensions of the towers (ca. 5-6 x 3-4 m) noted by Lawrence as being “quite small,” immediately suggest that they were not originally designed to house artillery – or at least machines of any significant size – and should predate the widespread use of defensive artillery beginning in the first quarter of the fourth century BCE. Moreover, the fact that the small towers were neither used sparingly nor limited to only the perceived vulnerable parts of the extant sections is indicative of a late fifth century BCE date. Based on numerous comparanda studied by Winter, he concludes that “towers were used sparingly (and as a rule unsystematically employed) until about 450 BC, whereas from the time of the Peloponnesian War onward, they became a common feature.” Finally, while the extremely over-grown and patchy remains leave us to wonder whether these towers had ground-storey chambers, were

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1016 Scranton (1941:85).
1017 Lawrence (1979:478).
bonded to the curtain, or possessed posterns in the back of the towers, the construction of some of the towers is informative. For example, the curtain between Towers 16 and 17, as well as that between Towers 6 and 7, was not built continuously with the back of these towers. Instead we see an alternative arrangement whereby the curtain stretches between the front corner of the tower and the back corner of the adjacent one. This practice of aligning the front of the tower with the outer face of the curtain, giving the impression that the tower extends inwards, “is rare after the fifth century.”1019

The construction and layout of the curtain are equally informative. While admitting that the thickness of walls as a chronological marker is problematic, Winter maintains that, as a general rule, the thickest city walls are those of the mid-fourth century BCE onward.1020 With an average width of only around 2.50 m, the relatively thin curtains at Psophis do not fit the pattern of later circuits. Indeed the lack of thick curtains suggests they were constructed before the widespread use of artillery, at a time when defenders still relied on the strength of their walls alone. Similarly, we may assign the lack of posterns at Psophis to the same accepted wisdom of the time. Certainly by the fourth century BCE, posterns became increasingly common as “city-walls lost much of their efficacy owing to the vast improvements in siege-equipment,”1021 and although there may exist some examples as early as the fifth century BCE, normally the use of posterns is less common in the earlier circuits where defenders still relied on the strength of their walls.1022 As a final point, it should be noted that the structure of the curtains themselves also fits the usual late fifth or early fourth century BCE arrangement. Not only is the fill

1019 Lawrence (1979:380).
1021 Lawrence (1979:338).
of earth, rubble, and masses of unworked stones consistent with other fifth century BCE examples, but the binding of the fill was achieved not with headers – typical of the fourth century BCE and onward – but simply by leaving the inner faces of the curtain blocks in the rough state in which they were quarried.1023

While admittedly far from conclusive, the evidence outlined above does recommend a late fifth or early fourth century BCE date for the original phase of construction for the Psophidian circuit. Perhaps most significant is the lack of any identifiable features that can be clearly attributed to the middle fourth century BCE or later. Even if an early date for these fortifications is accepted, it remains to explain why this system did not keep pace with advances in offensive siege warfare. In other words, why did the inhabitants of Psophis retain for almost two centuries what must have seemed an obsolete system, when other cities in Arkadia went to great lengths to upgrade their defenses as technological innovations had tipped the balance in favour of the aggressor? Lawrence provides an intriguing answer and one especially appropriate to Psophis, suggesting that the early enceintes of some “minor cities were left almost intact because the strength of their position compensated for antiquated designs.”1024 Of course the siege by Philip and the Achaians shattered such self-assurance, demonstrating that cities possessing even the strongest of natural defenses were not impervious to the advanced siege warfare of the Hellenistic period. Such is the advantage afforded by hindsight. Perhaps after the Elians were expelled and the Psophidians once again took control of their city, the inhabitants went to work repairing the damages caused during

1024 Lawrence (1979:377). Such an outdated and unfamiliar circuit may explain why Polybius considered the fortifications to be of “unusual construction” (Polyb. 4.70).
the siege. It is possible that a second phase of construction, as mentioned above, represented by the combined pseudo-isodomic trapezoidal and polygonal sections in the northern part of the city along the Erymanthos, is evidence of such repair.

Despite the reservations of Petropoulos about trying to assign a concrete chronology to the fortifications at Psophis, attempting to ascertain an approximate date, based on the available evidence, is certainly not beyond the realm of possibility. True, many of his reservations lie in the fact that he is waiting until the excavated material has been analyzed. Until such material is published, however, it is reasonable to propose that the fortifications at Psophis, as originally alluded to by Scranton, were probably constructed in the late fifth or early fourth century BCE, with a possible repair phase dated to the late third century BCE. It remains to be seen in the future whether the excavated material will confirm this chronology, or whether a new one will be proposed.

5.5 Ancient Paos

Although certainly limited, the evidence available suggests that Ancient Paos (or Paion, as it is often referred), was regarded as a polis in the Classical and Hellenistic periods, if not earlier. Indeed, Nielsen has no doubts about this, placing Paos among those Arkadian communities whose identification as a polis he considers to be a certainty.\footnote{Nielsen (2002:582-83, 549 n. 2).} Substantiation for such a claim apparently resides first and foremost in the testimony of Herodotus, who, among the suitors to the daughter of Kleisthenes, tyrant of Sikyon, mentions a certain Laphanes from the “Παίου πόλιος.”\footnote{Hdt. 6.127.3.} In the same passage, Herodotus also refers to Paos as an Azanian community. Another central piece of
evidence supporting the community’s *polis* status comes from Delphi, where an 
inscription reveals that a Delphic *theorodokos* resided in Paos sometime in the late third 
century BCE. Finally, while acknowledging the inscription from Delphi as confirming 
the importance of Paos, Meyer expands upon the account of Herodotus to the same end. 
Specifically, he maintains that for the city to boast a suitor for the hand of Kleisthenes’ 
daughter, then in the Classical period it must have been “wohlhabend und bedeutend” and 
its territory must have possessed “große Fruchtbarkeit.”

Besides Herodotus’ account, Pausanias represents the only other ancient source 
who mentions Paos at all. He tells us that “On the edge of [the forest of] Soron are the 
ruins of a village called Paos, and not far away is what they call Seirai, the frontier of the 
territory of Kleitor with Psophis.” While the topographical details in this brief 
description were crucial for reconciling the remains at the site with its identification as 
Paos, it tells us almost nothing concerning the history of this small *polis*. We are left to 
wonder, for example, whether Paos was a member of the Peloponnesian League or the 
later Arkadian Confederacy. The city’s relationship with the Achaian League is equally 
unknown. Lying roughly halfway between Psophis and Kleitor – the former attacked by 
Philip V, the latter by the Aitolians – it would be very interesting to learn of the 
allegiances and alliances of this small Arkadian settlement within the larger picture of the 
Social War and late third century BCE Hellenistic politics in general. The one point that 
can be established, based on Pausanias’ narrative, is that around the middle of the second 
century CE, Paos lay within the territory of Kleitor.

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1027 Plassart (1921:II.72).
1028 Meyer (1942:2400).
1029 Paus. 8.23.9.
Ultimately, we should be grateful that Pausanias mentions the site at all—otherwise, it is unlikely that Paos would have received any visitors in the centuries that followed. Gell appears to have been the first modern traveler to record and reconcile the remains of a “fortress [with] curious remains of masonry”\footnote{Gell (1817:123).} above the village of Skoupi as the remains of ancient Paos.\footnote{Somewhat paradoxically, the modern name of the village is either Palaios Paos and/or Neos Paos. The former refers of course to the proximity of the ancient site, while the latter is used to distinguish it from the older village of Paos, located in the hills ca. 2 km to the north.} In the decades that followed, other travelers, retracing Pausanias’ route from Kaphyai to Psophis, also noted these remains and associated them with ancient Paos.\footnote{Leake (1830:2.249); Boblaye (1836:157); Curtius (1851:1.379-80); Bursian (1862:2.263-264).} The very limited accounts provided by these men and the routes they traveled, however, suggest that they never actually climbed up to the site, but were instead content to simply point out its location. Curiously, even the usually comprehensive Frazer provides a brief report of little substance, stating only that there “are some ancient ruins near a fine spring. Some have taken these ruins to be the remains of Paus.”\footnote{Frazer (1898:4.281).}

The first systematic investigation of the site was published in 1920 by Papandreou as part of his larger study of sites in and around the town of Kalavrita.\footnote{Papandreou (1920:121-29). As noted by Pritchett (1989:20), Papandreou was not a trained archaeologist but a local schoolmaster.} His account represents the first study in which the fortifications of ancient Paos are described in any detail. Although his description spans but a few pages and largely deals with generalities, it remains the only substantial work on the topic. A few years later, Meyer included a section on the circuit in his article for the \textit{Realencyclopädie der Classischen Altertumswissenschaft} – including some corrections – yet much of his information is
based on the work of Papandreou.\footnote{Meyer (1942).} Papandreou’s and, to a lesser degree Meyer’s work, remain the only substantial accounts devoted primarily to ancient Paos, as the more recent references to the site are essentially all tangents of larger studies. Nonetheless, such research remains very valuable, not only as part of the larger studies in which they are included, but as contributions to our understanding of ancient Paos. Especially notable in this category are the geographical and topographical descriptions of the area provided by both Jost and Pritchett – the former as part of her study of Arkadian sanctuaries, and the latter in his tracing of Philip’s Arkadian campaign of 219/18 BCE.\footnote{Jost (1985:45); Pritchett (1989:20-21).}

Finally, and especially important for the present purposes is Papahatzis’ archaeological commentary of Pausanias, which provides the only published sketch-plan of the site.\footnote{Papahatzis (1994:4.269).}

### 5.5.1 Geography and Topography

The Lopesi Valley, as touched on above, runs for ca. 11 km in a southeasterly direction from Psophis to the modern village of Potamia where it opens onto an adjacent plain.\footnote{Leake (1830:2.249, 1846:221) refers to this as the plain of “Palea Katuna.”} The ancient site of Paos is located about 3 km from the eastern head of this narrow valley on a small fortified hilltop overlooking the modern village [Fig. 5.48]. The hill itself, rises ca. 120 m from the valley below, and comprises the southernmost spur of the larger Mount Trifia, from which it is separated by a narrow saddle [Fig. 5.49]. The small plateau at the crest of the hill representing the actual intramural area measures only ca. 100 x 150 m; within the walls is a small circular knoll measuring 65 x 34 m.\footnote{Papandreou (1920:125).}

Directly below this plateau, the hill slopes away relatively evenly and gently on the east,
west, and south. Moreover, to the north, the slope is somewhat steeper and after only a few meters is immediately met by a narrow saddle in the shape of a steep-sided concavity, less than 100 m long and only ca. 50 m wide.

Fig. 5.48. Topographical map of Paos and surrounding area

Fig. 5.49. View of Paos, saddle, and Mt. Trifia from the edge of the modern village (facing E)
As noted by Jost, with such a strong and impressive position, this fortified hill was well situated to dominate “centaines de mètres la plaine et la rivière.” Perhaps ‘rivières’ would have been a more appropriate description, as the site, in fact, commanded the convergence of two major rivers [Fig. 5.50]. Originating at the head of

![Fig. 5.50. Topographical map of Paos and territory](image)

the ravine immediately northwest of the site is the River Paos. This river flows southeast along the foot of the mountain before turning east where it skirts the southern flank of the site on its way toward the eastern end of the Lopesi Valley and the plain beyond. The other river is the Lopesi/Sireos River which runs southeast down the Lopesi Valley from its junction with the Erymanthos and Aroanios at Psophis. The confluence of the Paos and Lopesi/Sireos Rivers is located at the base of the southwest corner of the site. Furthermore, nestled between these two rivers and the hills to the north is a roughly diamond-shaped plain, measuring ca. 900 x 700 m. This plain, bisected by the Patras-Tripoli road, is presently given over to farming only in the southern half – as its northern half is completely covered by the modern village of Neos Paos. This well watered area in

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1040 Jost (1985:45).
the widest part of the Lopesi Valley must have been the primary source of cultivation for the ancient settlement.

Located along a narrow river valley instead of in a natural basin surrounded by mountains, the position of ancient Paos – not unlike Psophis – does not follow the typical pattern observed by most of the other northern and eastern Arkadian settlements. Consequently, attempting to determine the natural (and presumably political) boundaries of this polis is not a straightforward task. Certainly the mass of Mount Trifia to the north and northeast separated Paos from the territory of Kleitor; similarly, the bulk of Mt. Aphrodisio and the subsidiary chains on the southwest and south must have served to divide the territory of Paos from that of Thelpousa and Halous. With no significant natural boundaries, the extent of Paos’ territory to the east and west is less certain. As the polis situated closest to the plain at the east end of the Lopesi Valley, it is conceivable that this narrow swath of land and the small radiating valleys were indeed controlled by Paos. To the west, perhaps the narrowest part of the Lopesi Valley (at modern Ag. Georgios), nearly halfway between Paos and Psophis, represented the limits of the respective territories.

5.5.2 The Fortifications

Owing to a number of different factors – primarily the dense vegetal overgrowth and the reuse of blocks for terracing – very little of the fortifications at Paos is visible at present.¹⁰⁴¹ Indeed, the only substantial part of the circuit that survives in any way is found on its east side, where a stretch of wall, standing to a considerable height of over 3

¹⁰⁴¹ I was not granted a study permit for Paos. Unless otherwise cited, all photographs are based on personal observation from my visits to the site in the fall of 2009 and spring of 2011.
m, is still discernible. Yet this appears to have not always been the case, as almost a century ago Papandreou was able to make a number of observations which would be otherwise unattainable today. Although he did not produce a plan of his reconnaissance, one fortunately is reproduced in Papahatzis’ archaeological commentary on Pausanias [Fig. 5.51].

By employing this plan in combination with autopsy as well as Papandreou’s preliminary observations, a general appreciation and understanding of the fortifications of Paos can be realized.

Fig. 5.51. Plan of Paos reproduced in Papahatzis (1994:269)

1042 History of Kalavryta, p. 48 as reproduced in Papahatzis (1994:269). Note that this plan is not to scale.
The circuit, surrounding only the uppermost shelf of the hill, has been traced for 516 m,\textsuperscript{1043} is roughly elliptical in shape, and embraces an intramural area of no more than ca. 2 or 3 ha. Beginning in the westernmost point, the wall travels in a straight line for 130 m in a northeasterly direction before making a short return of 16 m toward the southeast and the circuit’s only gate.\textsuperscript{1044} East of the gate, the wall continues in a straight line for 30 m before making a ninety degree turn to the south.\textsuperscript{1045} The east side of the circuit is defined by a straight north-south running stretch of wall, 53 m in length, which runs parallel to its shorter counterpart on the extreme west side of the hill. Linking the east and west limits of the circuit is a roughly convex stretch of wall, 288 m long, which follows the topographical contours of the hill.\textsuperscript{1046} Both the diminutive size and commanding setting leave no doubt that the fortifications at Paos surrounded “nicht die gesamte Stadt, sondern nur den oberen Teil des Stadtberges,”\textsuperscript{1047} and therefore are representative of an acropolis-type circuit. While Papandreou maintains the site was of considerable size and would put the whole lower city on the slope of the hill, the location and extent of the lower city remain elusive.\textsuperscript{1048}

Almost two centuries ago, Gell noted that “this fortress has very curious remains of masonry.”\textsuperscript{1049} Gell was, in all probability, referring to the combination of two different types of masonry style employed – apparently indiscriminately – in the same parts of the

\textsuperscript{1043} Papandreou (1920:122).
\textsuperscript{1044} Ibid. (1920:125).
\textsuperscript{1045} Ibid. (1920:124).
\textsuperscript{1046} Ibid.
\textsuperscript{1047} Meyer (1942:2399).
\textsuperscript{1048} Papandreou (1920:128-29). There are two obvious candidates for the location of the lower city. The first is the small hollow east of the hill, the second is in the area south of the hill between the lower slope and the Paos River. Both of these sites had access to water and would have been sufficient for a small settlement. Moreover, either would be well positioned to access the saddle and acropolis from the east – its most approachable side.
\textsuperscript{1049} Gell (1817:123).
circuit. Specifically, as observed by Papandreou and Meyer, the fortifications exhibit a mixture of both coursed and uncoursed polygonal limestone blocks.\footnote{Papandreou (1920:123); Meyer (1939a:83, 1942:2399).} This combination of styles is especially clear in the eastern part of the circuit, where the curtains still stand ca. 3 m high in places [Fig. 5.52]. Moreover, as is common with both coursed and uncoursed polygonal masonry, in the terms of the accepted terminology, it appears these blocks received quarry-face surface treatment. Unfortunately, the scant remains prohibit a precise classification as to the type of superstructure that once rested atop these limestone foundations. Nonetheless, although the curtains do not survive to a consistent and uniform height – which would suggest they once supported a mudbrick curtain – the existence of such a superstructure may be inferred. The considerable size of the surviving blocks suggest that if the wall had either been completely constructed of stone or was even stone to the level of the wall walk, then the unmistakable remains of such a superstructure would be found littering the hillside immediately below the circuit.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig552.png}
\caption{Fig. 5.52. a) view of coursed polygonal; and b) uncoursed polygonal on east side of circuit (Facing W)}
\end{figure}
Certainly, the absence of such debris, not to mention the minor status afforded this *polis* by history, strongly suggests the polygonal foundations once supported a now lost mudbrick superstructure.

In the circuit at Paos, Papandreou observed four towers and one gate – all, it should be noted, found concentrated in the east and northeast parts of the circuit (See Fig. 5.51). Tower 10, located at the junction between the eastern and southern sections of the trace, is the largest of the four towers, measuring 3.90 m wide and extending c. 7 m from the adjacent curtains. Just over 50 m north of this tower, where the east and north walls converge, is Tower 9. Measuring 4.30 m wide and projecting 3.85 m, this tower is the smallest in the circuit. Finally, to the east of Tower 9 are the final two examples, Towers 8 and 7. These towers have identical dimensions, with their north sides measuring 4.40 m and their lateral sides 6.80 m. That these two towers are identical is not altogether surprising as they are part of the same gate complex. The gate itself consists of a simple north-south oriented opening, approximately 3 m wide, that is defined on the east and west by the long lateral sides of these flanking towers.

### 5.5.3 Strategy, Tactics, and Defensive Planning

Like every other fortified Arkadian site encountered thus far, there is nothing random in the relationship between the choice of site and the corresponding overall defensive planning and strategy at ancient Paos. Located on the edge of a plain, on the tip of a spur which extended from the flank of a mountain and linked to its main mass by a narrow saddle, the acropolis of Paos was ideally positioned for its function as both a

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1051 Neither the gate nor any of the towers were visible on my visit to Paos in March of 2011. All the measurements provided subsequently, therefore, are from Papandreou (1920:124). Tower numbers correspond to those on Fig. 5.51.
refuge in times of danger and as a safe and expedient place from which to command its territory. From its relatively modest height, this hill – distinguished by both its accessibility and inherent natural strength – was also afforded an advantageous viewshed to oversee traffic moving from all approachable directions [Fig. 5.53]. This is a significant point as the Lopesi Valley was the main artery of northwest Arkadia, not only linking Paos to Psophis and Kleitor, but also serving to link Arkadia with Elis and Achaia.

![Fig. 5.53. Panoramic View of Lopesi Valley from acropolis of Paos (facing SE to SW)](image)

Shielded largely by the bulk of Mount Trifia to the north, the fortified hill was provided with further natural defenses in the form of two rivers circumventing its base (see Fig. 5.47). Originating in the valley northwest of the site and providing protection along the west side of the hill is the River Paos. This river is met by the Lopesi/Sireos River at the base of the southwest corner of the site. After this confluence, the united rivers, continuing their journey east down the Lopesi Valley, offer their protection to the southern flank of the hill. In this way, the acropolis of Paos was provided with natural defenses on the north, west, and south sides of the hill. Only the east side of the hill was denied any apparent natural topographical advantages – an observation not lost on the military engineers who constructed the small circuit on its peak.
The fortification circuit of Paos is best understood in relation to the natural topography of the hill. Not only does its trace follow precisely the contours of the hill, but it was constructed specifically to enhance the natural strength of the site while at the same time to compensate for inherent weaknesses. That the walls generally follow the shape of the hill is clear enough: the southern wall curves to follow the general elevation contour on that side of the hill, while the long northwest section follows the northeast-southwest running ridge at the crest of the hill. It is on these two sides, moreover, where the absence of any tower is most conspicuous. Certainly the steep slopes found on the northeast and south sides, as well as the two rivers at their base, were deemed sufficient protection. It is the east and northeast sections of the circuit – areas devoid of any substantial natural defenses – where the tactical additions reflecting defensive concerns are most apparent.

The positioning of all the circuit’s towers as well as its only gate here indicates that the northeast and eastern part of the system represented the defensive focus of the acropolis. It is no coincidence, for example, that Tower 10, the largest in the circuit, is found where the east curtain meets the southern stretch of wall. From its position it was well placed to dominate any approach from the east and the southeast. Moreover, at c. 7m in length, its relatively long flanks would have ensured maximum coverage against any attacker that managed to reach the curtains. Further to the north is Tower 9, which, although smaller, could equally safeguard against any unwarranted approach from the east or northeast. With its eastern wall representing essentially an extension of the eastern curtain, however, it is clear that the primary focus of this tower’s attention – and those to
the west – was defense of the gate from the direction of the saddle, located some 30 m below and to the north of the circuit.\textsuperscript{1052}

As the most easily accessible part of the hill, this saddle represents the most likely point of entrance to the acropolis itself and it is not surprising, therefore, to find a gate in this direction.\textsuperscript{1053} In the same way, as the most easily accessible point, it is also not surprising to find the densest concentration of towers immediately opposite. Indeed, the construction of three north-facing towers along a stretch of wall only 40 m in length is confirmation of the fact that Towers 7, 8, and 9 were designed to command access to the gate and protect against an attack launched from the saddle. The defense of the northeast part of the circuit was enhanced by the oblique stretch of wall branching from the northwest corner of Tower 7 to meet the long north wall of the circuit. This arrangement, providing a ca. 16 m long curtain set at a 45° angle to the left of the gate, would have provided defenders a further platform from which to fire missiles upon an enemy’s unshielded right side as they approached the gate.\textsuperscript{1054}

5.5.4 Chronology

Even if Paos had a \textit{polis} identity by the early 6th century BCE, as suggested by Herodotus,\textsuperscript{1055} it does not necessarily follow that the settlement was fortified at that time. Indeed, as ancient Paos remains all but invisible in the historical record, any attempt to assign a rough chronology to the acropolis fortifications must rely almost exclusively on the meager remains themselves. Specifically, an approximate date can be considered only

\begin{footnotesize}
\begin{itemize}
  \item 1052 Papandreou (1920:122).
  \item 1053 The placing of a gate to give access from a narrow saddle is also a tactic employed in the circuit at Nestane.
  \item 1054 The oblique course of the wall emanating from Tower 7 created, in effect, a small concavity in front of the gate – an arrangement similar to that proposed above for the northeast gate at Psophis.
  \item 1055 Hdt. 6.127.3.
\end{itemize}
\end{footnotesize}
after the construction methods and the tactical components of the circuit are evaluated within the framework of evolving Greek warfare and through appropriate comparanda.

Scranton’s comprehensive survey of the masonry of Greek fortifications reports that the polygonal style has its origins in the fifth century BCE and that specifically Peloponnesian examples – both coursed and uncoursed – are rare after the late fourth and the beginning of the third century BCE.1056 Meyer arrived at a similar conclusion independently, admitting that although the walls may date to the early Hellenistic period, he doubts that the circuit can be older than the fourth century BCE.1057 While the line of reasoning behind Meyer’s chronological opinion remains unstated, it is unlikely he took the larger tactical components of the acropolis trace into consideration. If, for example, he did take into account the form and distribution of the towers, the gate, and curtains, he may have instead proposed a slightly earlier date – one that perhaps predates the widespread use of artillery.

In a circuit spanning just over 500 m in length, the construction of only four towers is telling and suggests that where possible, the architects relied almost exclusively on the natural defenses afforded by the topography itself. This situation accords well with Winter’s description of fifth century BCE systems in which towers were employed sparingly and unsystematically, and usually only where special precautions were required – i.e., in areas easily accessible to attackers such as at gates, angles, or where the wall stood on a gentle slope.1058 Moreover, in these systems, as at Paos, simple jogs and long

1056 Scranton (1941:50, 55, 69).
1057 Meyer (1942:2399).
stretches of unflanked curtain were still frequent.\textsuperscript{1059} Besides their limited deployment, one of the most observable features in the circuit is the relatively small size of the towers employed. Averaging a modest ca. 4 x 7 m, the four towers at Paos are similar in dimension to those towers at Psophis, Mantinea, and Orchomenos, for example, which seem to be products of the late fifth to early fourth centuries BCE.

Unfortunately, the form and location of the gate and the apparent absence of posterns in the circuit are not as chronologically informative. While in general the use of posterns was less common in earlier circuits – when defenders still relied on the strength of their walls before the widespread use of artillery – their absence at Paos does not necessarily designate an early date for the walls. In an acropolis circuit already sufficiently protected by the topography of the hill on three sides, such tactical features would not only be inappropriate, but ultimately unnecessary during any stage in the evolution of ancient Greek siege warfare. Finally, as a simple opening, logically situated at the only accessible part of the acropolis, the single gate offers little evidence as to the date of the circuit as a whole. This gate, moreover, is fairly typical and at Paos it follows the general pattern outlined by Winter where “the line of the wall was more often than not determined by…natural features, and the gates were subsequently placed where they would be under cover of projecting salients or angles.”\textsuperscript{1060} While the flanking towers and the additional measure of swinging the western wall sharply outward to a point some distance from the gate created an area for enfilading on an enemy’s unshielded right side, it adds little to the chronological question.

\textsuperscript{1059} Ibid. (1971a:154).
\textsuperscript{1060} Ibid., (1971a:212).
Every fortification circuit is, of course, more than a sum of its parts. Yet, it is placing the parts into the appropriate archaeological and historical contexts that get us closer to the chronological truth. Both the style of masonry and the limited use of relatively small towers immediately suggest that the circuit of Paos was constructed before the widespread use of artillery. Yet the apparent ‘old-fashioned’ nature of the system may instead reflect its isolation, function as an acropolis, and/or the topography of the hill on which it was built. In other words, the lack of towers on all sides but the northeast and the conservative use of polygonal masonry may still have been appropriate tactical decisions in a time when siege warfare had displaced the traditional pitched hoplite battle. Certainly the construction of a large cistern at the west end of the acropolis served by a 230 m long aqueduct originating outside the walls suggests a defensive concern in the unlikely event of a siege. Until a systematic excavation sheds further light, however, based on purely stylistic grounds, a late fifth to early fourth century BCE date for the construction of the circuit is the most inclusive for all the evidence available.

1061 On this cistern see Papandreou (1921:122). Whether this cistern is contemporaneous with the circuit, however, is unclear.
Chapter 6: The Fortified Poleis of Western Arkadia

This chapter surveys the fortified poleis located in western Arkadia on an individual basis, including the sites of ancient Alipheira, Phigaleia, Halous, and Theisoa (Lavda). After establishing that these settlements were indeed poleis, and reviewing all previous scholarship on the sites, the fortification circuit of each polis is explored through the local history, the geographical and topographical setting, the architectural components of the fortifications themselves, and finally, the strategy, tactics, and overall defensive planning inherent in their construction. Based an understanding of all of these factors, including historical probability, a chronology of construction for each site in question is then provided.

6.1 Ancient Alipheira

Ancient Alipheira is relatively well attested as a polis in the written and epigraphic sources of the Hellenistic period. For example, a third century BCE inscription has been found that refers to Alipheira as a polis,\(^\text{1062}\) as well as a number bearing the use of the city ethnic.\(^\text{1063}\) Polybius too, writing in the second century BCE, refers to Alipheira as a polis, as does Pausanias, albeit, retrospectively.\(^\text{1064}\) Finally, and again in the Hellenistic period, we can be confident that a Delphic theorodokos resided in the city.\(^\text{1065}\) Unfortunately however, there is little evidence that makes the political identity of the settlement clear in the Archaic and Classical periods. The fact that votives on the site can be traced back to the mid-sixth century BCE, that a large sanctuary to Athena was

\(^{1062}\) SEG 25 447.9.
\(^{1063}\) SEG 25 449; IvO 48; CIG 1936. For a review of the toponym and city ethnic, see Orlandos (1967-68:9-10).
\(^{1064}\) Polyb. 4.78; Paus. 8.27.4-7.
\(^{1065}\) Plassart (1921:II.80).
constructed in the late Archaic period, and that the acropolis was equipped with a fortification circuit before 370 BCE, suggests activity and a level of social organization perhaps indicative of a polis. Ultimately, the most we can say on the subject, as Nielsen maintains, is that since Alipheira certainly existed before the Hellenistic period, “[it] may possibly have been a polis.” As for the settlement’s tribal affiliation, Pausanias says that Alipheira was a member of the Kynourian tribe.

As is so often the case, the archaeological evidence provides a separate yet complementary narrative to the written history of Alipheira. While the former is discussed below, the latter begins in 370 BCE, when, we are told, Alipheira was one of the settlements voted to be incorporated into the new city of Megalopolis. At that time, Pausanias tells us that the city was “abandoned by many of its inhabitants,” the implication being that not all of the population participated in this Arkadian union and the city was not completely deserted. Still, Alipheira was almost certainly a member of the Arkadian League and, before that, presumably also a member of the Peloponnesian League.

Alipheira appears to have remained a member of the Arkadian Confederacy until 244 BCE, when Lydiadas – then tyrant of Megalopolis – ceded the city to Elis. In a situation paralleled at Psophis, “the strength of this position rendered Alipheira a valuable

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1068 Paus. 8.27.4.
1069 Ibid.
1070 Ibid., 8.26.5, emphasis mine.
1072 Polyb. 4.77.
acquisition to the Eleans.”¹⁰⁷³ Consequently, the alliance of Achaians and Macedonians led by Philip V would not suffer an Elian garrison to hold such a valuable and strategic position for long and in 219 BCE, just weeks after they had wrestled Psophis from Elian control, the Achaian and Macedonian troops laid siege to Alipheira.¹⁰⁷⁴ Although the defenders briefly resisted the advance of Philip, they soon capitulated and their lives were spared.¹⁰⁷⁵ The city was annexed again by Megalopolis a few years later in 207 BCE, and in 191 BCE, Alipheira joined the Achaian League and began to mint its own coinage.¹⁰⁷⁶ Finally, although by the time Pausanias visited the site, Alipheira was a town “of no great size,”¹⁰⁷⁷ scant remains from the early Christian period demonstrate that inhabitation in the area continued to some degree.¹⁰⁷⁸

Although Pausanias can be said to have been the first ‘traveler’ to the site, it is Polybius who provides the first real description of the ancient city. In his account of Philip’s siege of 219 BCE, the author provides a fairly reliable topographical picture of the city and the surrounding area.¹⁰⁷⁹ Nonetheless, as mentioned, Pausanias was the first to visit the site with the aim of recording the remains rather than the details of a specific historical episode. Between the poleis of Heraia and Megalopolis, the Periegete made the briefest of stops at Alipheira, mentioning only the sanctuaries of Athena and Asklepios.

¹⁰⁷³ Cramer (1828:3.327).
¹⁰⁷⁴ Polyb. 4.77-78.
¹⁰⁷⁵ Ibid., 4.78. This siege will be discussed in more detail below. For a commentary on Polybius’ account of Philip’s attack with reference to the local topography, see Pikoulas (1983).
¹⁰⁷⁷ Paus. 8.26.5.
¹⁰⁷⁹ Polyb. 4.77-78. While it is possible that Polybius received his information second-hand, the fact that he was from nearby Megalopolis makes it equally possible that his description of the site was from personal observation.
as well as the large bronze statue of Athena, before moving on. Travelers in the 19th century picked up where Pausanias left off, and while Alipheira is somewhat off the beaten path, we see most of the same visitors already encountered at the sites described above.

The first archaeological investigations of the site were conducted by Orlandos in four consecutive campaigns between 1932 and 1935. Excavation of the Athena and Asklepios sanctuaries represented the greater part of his efforts, the results of which were published in a monograph some three decades later. Fortunately for the present purposes, Orlandos also provides a concise, if brief, description of the acropolis’ fortifications – including the first accurate detailed plan – in his publication on Alipheira. Interest in the site, and more often in Philip’s siege, continued throughout the rest of the 20th century. As commentaries on this famous siege cannot be separated from either the defenses or the local topography of the site, the prominent studies by Pikoulas and Pritchett are as important to the study of Alipheira’s fortifications as those which have grounds to mention them independently.

6.1.1 Geography and Topography

The small city of ancient Alipheira is located on an isolated hill, near the borders of Triphylia and Elis, on the south side of the Alpheios River valley [Fig. 6.1]. This

1080 Both of these sanctuaries have been identified and excavated. On the sanctuary of Athena, see Orlandos (1967-68:43-124); and on the sanctuary of Asklepios, see Orlandos (1967-68:169-202).
1081 E.g., Gell (1817:86, 114); Leake (1830:2.71-80); Boblaye (1836:160); Ross (1841:1.102-04); Curtius (1851:1.360-63); Bursian (1862:2.234); Frazer (1898:4.297-300).
1082 Orlandos (1967-68).
1083 Ibid., (1967-68:27-42, pl. 2). For earlier plans see Leake (1830:72) and Curtius (1851:pl. 7). Curtius’ plan is derived from Leake’s.
1085 E.g., Scranton (1941:82); Lawrence (1979:461); Jost (1985:77-81).
location, as noted by Jost and touched on above, “lui valut un statut politique instable.” The numerous mountains, small hills, and tributaries contributing to the inherent beauty of the area, also represented the natural boundaries of the territory. South of the southern plain is Mt. Minthi, demarcating the border with Phigaleia; to the north and northwest Mt. Arithas formed the boundary with the territory of Heraia; while the Phanari and Mylaon Rivers, tributaries of the Alpheios, constituted the eastern limit of the territory and boundary with Theisoa. The city’s fortified acropolis, known to the early travelers as Kastro Nérovitsa, commanded a territory of ca. 100 km² comprised of a small plain that extends northward towards the Alpheios River, and a larger narrow plain in the northwest-southeast running valley located south of the site [Fig. 6.2].

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1086 Jost (1985:77).
1087 Ibid.
The acropolis of Alipheira encompassed the apex of a narrow, but high and precipitous hill [Fig. 6.3].\(^{1088}\) This hill rises ca. 160 m above, and is sharply delineated by, the Phanari and Zelechovitiko River valleys to the east and west respectively. While the

\(^{1088}\) The modern village of Alifira lies on the northern slope of the hill, below the ancient acropolis.
slopes of the hill fall away on all sides – though considerably more steeply to the west and southwest – the top consist of a narrow crest, 800 m by 65 m. In general, this crest is widest in the centre with north and south ends tapering “like a knife-edge,” but the terrain of the intramural area of the acropolis is nowhere really flat or uniform. Although the majority of the area can be seen sloping gradually from the southeast to the northwest, the top of this hill contains a number of distinct topographical features [Fig. 6.4]. For example, there are two conical mounds resembling ‘tumuli’ in the middle of the enclosed area as well as a small knoll on the northeast side of the site. Moreover, the southern end of the acropolis is fashioned into terraces – artificial and natural – which descend to

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1089 Orlandos (1967-68:32). The hill is not oriented east-west as on the early plans of Leake and Curtius.
1090 Frazer (1898:4.297).
1091 While I initially thought that these mounds represented the back-dirt from Orlandos’ excavations, that they appear on his plan of the site suggests that they are not.
the south in a series of steps: the separately fortified citadel occupying the highest point, followed by the sanctuary of Athena below, and finally, a long narrow tongue of land representing the southernmost part of the hilltop. Scholarship has demonstrated that this narrow stretch of land is instrumental to our understanding of Polybius’ account of Philip’s siege and by association, to locating the lower city of the site.

It is clear from both the relatively small size of the intramural area and the buildings discovered within that the acropolis of Alipheira must have been supplemented by a lower city. This immediately brings to mind two questions: where was this residential area located and was it fortified? As to the former, the acropolis fortifications and the topography of the hill suggest the east slope of the hill as the likeliest candidate. Not only is the eastern side the only navigable part of the hill, but the two attested gates of the acropolis circuit are both located on its eastern side. Finally, in his description of the site, Leake observed traces of the lower city fortifications on the eastern slopes of the hill – not only confirming this area as the location of the lower town, but also providing the answer to whether it was fortified.1092

A fortified lower city located along the east side of the hill also clarifies Polybius’ account of the siege of the city in 219 BCE. Polybius writes,

[Philip] placed parties of men with scaling ladders at several points…the king himself took some picked men, and mounted unobserved over some steep hills up to the suburb of the citadel and then, at a given signal, all at once put the scaling ladders to the walls and began attempting the polis. The king was the first to take the suburb of the acropolis, which had been abandoned by the garrison.1093

1092 Leake (1830:2.73-74). Pikoulas (1983) and Pritchett (1989:45) corroborate Leake’s observation. The Lower city fortifications will be discussed in more detail below in section 6.1.3.
1093 Polyb. 4.78.
Pikoulas has reconciled this account with the topography of the city, suggesting that the Macedonians planted their ladders against the wall of the *polis* (i.e., the lower city on the eastern slope) while the king’s small force climbed atop the acropolis’ narrow southeastern tongue of land (i.e., the suburb) which they found abandoned – the defenders having retreated to the keep above the sanctuary of Athena.\(^{1094}\)

Although somewhat off the beaten path, the site of Alipheira was favourably situated in several respects. It possessed a well watered and fertile territory and was close to some of the major roads connecting Arkadia, Triphylia, and Elis. Located only about 7.5 km south of Heraia and the Alpheios valley, Alipheira was also not far from the major road linking Olympia to Megalopolis and the Arkadian interior. Moreover, with the exception of Phigaleia to the south, Alipheira was the Arkadian *polis* closest to the Ionian Sea. This proximity to the sea played no small part in the city’s history, as an inscription discovered by Orlandos speaks of the city’s liberation from a foreign garrison by pirates.\(^{1095}\)

### 6.1.2 The Fortifications

Employing a combination of both the extant remains as well as plausible conjecture, the line of the fortification circuit on the Alipheirian acropolis can be reconstructed in its entirety with a fair degree of confidence [Fig. 6.5]. Beginning in the north, behind and to the west of the Sanctuary of Asklepios, we see a surviving section of


\(^{1095}\) Orlandos (1967-68:133-46). For a summary of the various interpretations of this inscription, see Pritchett (1989:45-46).
the wall following the edge of the hill in a southern direction.\footnote{1096} While there are no visible remains of the wall south of this section, it likely continued its south-southeast course (for ca. 200 m) encompassing the western side of the acropolis. This supposition, however, is admittedly far from conclusive.\footnote{1097} We are on firmer ground for the rest of the

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\textbf{Fig. 6.5 Plan of Alipheira from Orlandos (1967-86: pl. 2)}

\footnote{1096} I would like to thank the 39th Ephorate of Prehistoric and Classical Antiquities for granting me a study permit to examine the remains of ancient Alipheira. Unless otherwise cited, all photographs and measurements are based on personal observation from my visits to the site in the summer of 2010 and spring of 2011.

\footnote{1097} Although Orlandos (1967-68:27) maintains that fortifications were probably not necessary owing to the steepness of the hill, his plan does include a conjectured course for the wall here along the west side (see Fig. 6.5). Furthermore, I did observe traces of the tower with an elevation of 666 m on Orlandos’ plan here which adds weight to the argument for a wall along the west side of the hill. Frazer (1898:4.298) too maintains that “the whole of the summit of the ridge was probably enclosed by fortification-walls.”
circuit’s course. Substantial remains of the wall can be observed along the southwestern edge of the acropolis. The wall then appears to continue southeast where it embraces the entirety of the southeastern tongue of land below the Athena Sanctuary, before continuing north. The circuit descends down the northeast side of the hill before quickly rising again to embrace a small knoll. From the tower atop this knoll, the wall descends down its west side and follows the contours of the acropolis in a northwesterly direction, before terminating at the southeast temenos of the Asklepieion. Finally, located on the highest part of the hill, within the larger trace, is a separately fortified citadel. Quadrangular in shape, it includes two towers overlooking the Athena Sanctuary as well as a rectangular keep on its western side.

The fortifications of ancient Alipheira are fairly well-preserved. The best preserved sections are those highlighted above, namely the western section on the north side of the hill, the southern section – including the citadel – as well as parts of the northern trace. In these sections, many courses of the wall are still visible, standing in places to heights of over 3 m. Furthermore, comparison between Orlandos’ photographs and ones taken recently demonstrate that in some areas of the wall, not a single stone has been displaced in the last half century [Fig. 6.6]. In other areas, however, it is clear from the number of blocks littering the slopes of the hill that many of them have either shifted or completely fallen from their original location.

The fortification circuit on the hill at Alipheira represents the acropolis-type. The surviving sections of the circuit consist of an inner and outer facing of limestone

1098 Based on his interpretation of Polybius, Orlandos labels this separately fortified enclosure the ‘akropolis’. Based on the interpretation of Pikoulas (1983), however, I agree that the entire hill is better understood as the acropolis, and will thus employ the word citadel to differentiate between the two.
(presumably extracted locally) with a packed rubble and earth core, and are for the most part, according to Orlandos, constructed in a coursed polygonal style.\textsuperscript{1099} While it is true that some parts of the circuit appear to have been constructed in this style, in other parts, a clear definition of the type of masonry is less forthcoming. Such uncertainty is reflected in the observations of, for example, Curtius, who notes that “Die Bauart der Mauern zeigt auch hier eine merkwürdige Vereinigung der polygonen und der fast ganz regelmässigen Steinfügung,”\textsuperscript{1100} and Frazer, who describes the masonry as “quadrangular, with

\textsuperscript{1099} Orlandos (1967-68:31). The limestone employed is friable with clearly visible veins of differing consistency. That it is so similar to the type of stone used in the nearby circuit of Theisoa (Lavda) (see Chapter 7) suggests it is a type found locally. Frazer (1898:4.298) maintains “it is the native rock of the hill, as may be seen by the numerous rocks of this sort which crop up on the surface at the northern end of the ridge.”

\textsuperscript{1100} Curtius (1851:1.361).
polygonal pieces here and there.”1101 Scranton, on the other hand, notes that “the wall at Alipheira is not distinctive in style, but may be grouped in the irregular trapezoidal division.”1102

At Alipheira, therefore, we see a breakdown in the traditional classification system, as in different parts of the circuit, all of the above statements can be found to be true. For this reason, although parts of the wall may lean more to one style than the other [Fig. 6.7], on the whole, the walls of Alipheira (including the lower city circuit) are best described as a combination of coursed polygonal and irregular trapezoidal with quarry-face surface treatment [Fig. 6.8]. Furthermore, although the tops of the curtains nowhere really survive to a consistent height, and although this height is often considerable, there is no evidence to suggest the curtains and towers were constructed entirely of stone. Similar to Alea, therefore, although the stone foundations are high, they would have supported a mudbrick superstructure and/or timber battlements and tower chambers.

1101 Frazer (1898:4.298).
1102 Scranton (1941:81). Although he cites Scranton’s (1941:52) ‘coursed polygonal’ class of masonry, Orlandos (1967-68:31) does not mention Scranton’s belief that the walls of Alipheira are irregular trapezoidal.
Fig. 6.8. example of typical combination of coursed polygonal and irregular trapezoidal from south wall of citadel (facing N)

Fig. 6.9. Plan of Alipheira from Orlandos (1967-68: pl. 2)
As mentioned, some sections of the walls are better preserved than others, and accordingly, the length of some of the sections can be determined [Fig. 6.9]. The northwest part of the circuit (and/or the west wall of the Asklepieion *temenos*), survives for ca. 46 m. The southern part of the system, including the southern walls of the citadel and Athena Sanctuary, runs for ca. 228 m. In the southeast, a small ca. 40 m stretch of walls survives on the southern side of the small tongue of land southeast of the citadel. And finally, in the northeast part of the circuit, a stretch of ca. 85 m can be traced. Assuming the fortifications did encircle the whole top of the hill, their estimated total length is approximately 1440 m. Outside of the citadel, Orlandos does not record the thickness of the curtains in these extant sections.\(^{1103}\) Based on personal observation and the scale employed in his plans, however, for the most part, the walls on the acropolis appear to be around 2.75-3.0 m thick.\(^{1104}\) The exception is the stretch forming the southern terminus of the Athena Sanctuary, where the walls are limited to a thickness of ca. 2 m.\(^{1105}\)

Again discounting the citadel – which is addressed below – the circuit at Alipheira contains 10 towers of differing dimensions, though all are rectilinear.\(^{1106}\) As alluded to above, traces of Tower 666 can be observed along the otherwise vanished western section of the hill [Fig. 6.10]. Unfortunately, however, such is the poor state of the remains that little of substance can be said about this installation or the subsequent tower to the south. Tower 667.7, on the other hand, is fairly well-preserved [Fig. 6.11].

\(^{1103}\) Except for in a small section on the north of the hill, which he maintains is 2.75 m thick (Orlandos 1967-68:38).

\(^{1104}\) See Orlandos (1967-68:29, fig. 10 and 38, fig. 21).

\(^{1105}\) Ibid.

\(^{1106}\) Following Orlandos, I will refer to these towers based on their elevation provided on the site plan (see Fig. 6.5).
Located ca. 40 m southeast of Tower 666, it measures ca. 7.50 m across and projects out around 2 m from the adjacent curtain. Interestingly, this tower also stands out from the

inside of the wall, projecting inward ca. 1 m. Some 165 m southwest of this tower, on the southeast corner of the platform housing the Athena Sanctuary is Tower 675. Nearly a perfect square, this tower presents a ca. 8 m front to both the southeast and southwest, and a ca. 6 m face to the northeast. Finally, approximately 55 m southeast of this tower is Tower 672.7. Again, little of this structure remains, but appears to have been roughly square, and comparable to Tower 667.7 in its dimensions and alignment with the surrounding curtains.

In the northern half of the fortification circuit, the towers are generally better preserved [Fig. 6.12]. Tower 644 is rectangular in shape, measuring ca. 7 x 5 m, and projects for several meters both inside and outside the curtain. Located 48.50 m down

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107 Frazer (1898:4.298) offers this description, “here are remains of a piece of wall with a quadrangular tower projecting from it…The tower measures 24 feet on the face, and projects 5 feet 3 inches from the curtain. It is standing to a height of six courses, or about 8 feet.”

108 Very little of this tower is visible today and the observations are based largely on Orlandos’ plan of the citadel (1967-68:29, fig. 10). His detailed plan of the citadel, it should be noted, differs from his site plan (1967-68: pl. 2), which shows Tower 675 not as a square, but as an elongated rectangle.


110 For photograph of Tower 644, see Orlandos (1967-68:36, fig. 19).
the slope to the northeast of this structure and comparable in its proportions is Tower
632.\textsuperscript{1111} From here the curtain rises for 51 m up the southern slope of the small knoll,
where it meets another rectangular tower at its highest point.\textsuperscript{1112} Although little of this
tower can be observed today amidst the block-strewn remains, from Orlandos’ plan, it
appears to have been the largest tower in the circuit. Measuring ca. 12 x 8 m, the north
side of the tower is flush with the curtain to the east, while it projects eastward
approximately 4 m from the curtain to the south. Some 75 m west of the knoll and its
large tower is another, smaller rectangular tower, ca. 4 x 4 m, projecting 2 m from the
curtain.\textsuperscript{1113}

\textsuperscript{1111} Ibid., (1967-68:37).
\textsuperscript{1112} Ibid.
\textsuperscript{1113} Unlike most of the other towers in the circuit, the back of this tower does not project into the intramural
area.
The last tower in the circuit is easily the best preserved. Located 165 m northwest of the previous tower, and colourfully referred to as “τ’ ἀπήδημα τῆς βουβάλας”\textsuperscript{1114} by the locals, this tower survives to a height of ca. 5 m, measures 9 x 3.70 m, and is almost flush with the curtains, projecting backwards less than half a meter [Fig. 6.13].\textsuperscript{1115} The tops of both the tower and the adjacent curtains possess a uniformity in height that suggests that the tower survives to the original height of its first chamber.\textsuperscript{1116} In this tower, moreover, not only do the courses of polygonal and trapezoidal blocks display a greater degree of isodomic regularity, but the corners of the structure are also drafted with a thin bevel (5.50-6 cm).\textsuperscript{1117}

\begin{figure}
  \centering
  \includegraphics[width=\textwidth]{fig613.jpg}
  \caption{a) “τ’ ἀπήδημα τῆς βουβάλας” Tower (facing NW); b) “τ’ ἀπήδημα τῆς βουβάλας” Tower and adjacent curtain (facing SE)}
\end{figure}

\textsuperscript{1114} According to Orlandos (Ibid).
\textsuperscript{1115} Ibid., (1967-68:38).
\textsuperscript{1116} An argument strengthened by a 1 m wide door at the back observed by Orlandos (Ibid).
\textsuperscript{1117} Ibid. For a photograph of this treatment, see Orlandos (1967-68:38, fig. 21).
It appears that access to the acropolis of Alipheira was facilitated by at least one, and possibly two gates. Although today no traces of these gates are visible, their existence is attested by several early travelers as well as by the detailed surveys of the hill conducted by both Orlandos and Pikoulas. All of these writers perceived a gate on the eastern side of the hill, north of the citadel, in the area south of Tower 644. The only substantive description is provided by Leake, who writes, “the entrance appears to have been in the middle of the eastern wall, between two square towers, of which only the left now remains.” We may surmise from its location and this description that it was a simple frontal gate on an east-west axis, protected by rectangular towers on its north and south side. The other acropolis gate, as suggested by Pikoulas, may lie somewhere in the northwest part of the hill in the area of the Asklepieion.

Based on the assumption that the acropolis circuit encompassed the entire hill, and Orlandos’ view that the walls continued to the northwest from the “άπηδημα της βουβάλας” Tower, Pikoulas maintains it is probable that a gate existed “NE of the Asklepieion.” This notion, however, is hard to reconcile with Orlandos’ plan, which shows the remains of the fortification wall, running northeast-southwest and joining the southeast corner of the sanctuary’s temenos wall. Although the relatively accessible terrain in this part of the hill would lend itself to a gate, if one existed here, perhaps it should be sought in this northeast-southwest running wall and not in the northeast of the

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1118 Leake (1830:2.73); Curtius (1851:1.361); Orlandos (1967-68:36); Pikoulas (1983:55).
1119 Leake (1830:2.73). The tower on the left (i.e., south) observed by Leake may be the tower located in the northeast corner of the citadel. This would place the gate just north of the Athena Sanctuary, near the elevation marked 669 on Orlandos’s plan. This is approximately where Pikoulas (1983:54) places this gate.
Asklepieion. As this wall meets what appears to be a north-facing tower at the east end of the sanctuary’s southern temenos, a gate here would be well protected. Ultimately, of course, this would mean that the Asklepieion lay outside the fortifications. That this is indeed the case is suggested by the presence of a small, north-facing, rectangular tower located on the southern temenos as represented on Orlandos’ detailed plan of the sanctuary.

The final element of the acropolis circuit to be discussed is the independently fortified citadel located on the southern part of the hill [Fig. 6.14]. The citadel is arguably

Fig. 6.14. Plan of Citadel of Alipheira from Orlandos (1967-86:29, fig. 10)

1122 This view is also held by Alevridis and Melfi (2005:274) in their recent work on the Sanctuary of Asklepios at Alipheira.
1123 Tower (?) 652.6 on Orlandos’ plan.
1124 Alevridis and Melfi (2005:274).
1125 See Orlandos (1967-68:170, fig. 110). This tower, however, does not appear on his general site plan (Orlandos:1967-68: pl. 2).
the best-preserved part of the defensive system at Alipheira and was commented on frequently by the early travelers (see Fig. 6.8). The southern wall of the citadel, basically a continuation of the acropolis wall continuing southeast from Tower 667.7, runs for 73 m between the entrance and the southern tower. From this southern tower – square in shape and measuring 7.50 x 7.50 m – the eastern wall of the citadel runs north-south for 61 m where it joins the southwest corner of the northern tower. This tower is also roughly square, and with dimensions measuring 6.20 x 6.60, is only slightly smaller than its southern counterpart. Finally, the northern side of the citadel is enclosed by a 43 m long stretch of wall, the western end of which forms the north wall of the citadel’s large western tower or keep. This tower, according to Orlandos, measures some 12.40 x 15.30 m, has walls 1.20 m thick, and is preserved in places to seven or eight courses totaling some 2.80 m [Fig. 6.15]. Admission to the citadel was provided by a small trapezoidal-shaped corridor located to the south of the western keep. Measuring ca. 8 m in length, this entrance tapers from a width of 2.30 m to 4.30 m from the northwest to southeast as one enters the citadel.

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1126 E.g., Leake (1830:2.72-73); Ross (1841:102-03); Curtius (1851:1.360); Frazer (1898:4.297-98).
1127 Orlandos (1967-68:28). All the curtains of the citadel are ca. 3 m thick.
1128 Ibid.
1129 Ibid.
1130 Ibid. Orlandos believes this tower/keep functioned as a guardhouse, the entrance to which can be found in its southeast corner.
1131 Ibid.
1132 Ibid.
6.1.3 Strategy, Tactics, and Defensive Planning

While acropoleis throughout the ancient Greek world were often home to major religious and civic institutions, the ultimate strategic function of any fortified acropolis site was as a refuge in times of crisis. Alipheira is, of course, no different in this respect, but instead of representing the primary defensive installation (like at Paos for example) the acropolis and citadel at Alipheira represented the second and third lines of defense respectively. The first line of defense was the lower city fortifications [Fig. 6.16].
As noted by others, nowhere in Orlandos’ monograph are there allusions to a lower city wall nor does any trace of such appear on any of his plans.\textsuperscript{1133} It is difficult to understand such an omission since the idea that a fortification wall did indeed once surround the lower city was first suggested a century before Orlandos began his work at the site.

Writing of his observations at Alipheira, Leake tells us that “after winding around the eastern side of the hill… I find the foundations of one of the gates of the lower city. This part of the fortification was flanked with towers, of which there are the remains of two or three, together with considerable pieces of the intermediate walls” [Fig. 6.17].\textsuperscript{1134} In his survey of the site based on Polybius’ account of Philip’s siege, Pikoulas too encountered parts of the lower city wall on the lower slopes east of the acropolis, thus confirming Leake’s testimony.\textsuperscript{1135} Pikoulas’ discovery was instrumental to his establishing “what seems to be the correct solution of Polybius’ account,”\textsuperscript{1136} and consequently, has not only confirmed the very existence of a lower city wall, but has provided a clue to its course. For example, if his interpretation is correct, and the forces of Philip laid siege to the lower city walls while the king himself and a select group of men scaled the southwest side of the southernmost part of the acropolis, then it stands to reason that the lower city walls did not completely encircle the acropolis [Fig. 6.18]. Instead, we may suppose that the lower city wall encircled part or all of the northeastern side of the hill, while the southwestern half of the hill, perceived as being too steep for

\begin{itemize}
\item \textsuperscript{1133} Pritchett (1989:43); Pikoulas (1983:54).
\item \textsuperscript{1134} Leake (1830:2.73-74).
\item \textsuperscript{1135} Pikoulas (1983:54). Most recently, Pritchett (1989:44-45, pls. 84-86) traced (and photographed) ca. 50 m of this wall located about 100 m north of the ruined church of St. Nikolaos near the modern road east of the acropolis.
\item \textsuperscript{1136} Ibid., (1989:45).
\end{itemize}
either habitation or to necessitate the additional defenses, did not receive parts of the lower city circuit.

![Satellite image and proposed location of lower city walls and direction of Philip’s siege](image)

Despite the successes of Philip, we see at Alipheira a careful strategic and tactical awareness reflected in the choice of site and utilization of the terrain. The site of Alipheira appears to have been blessed with the natural environmental elements of a successful city-state: it was well watered, it enjoyed a small but fertile plain, and was founded in an easily naturally defendable position. Apparently not satisfied with the already considerable defensive position of the site, however, the military architects took supplementary measures to increase the safety of the city’s inhabitants: the construction of a lower city wall and the reinforcement provided by a fortified acropolis. It is in the latter where we can catch a glimpse of both the defensive concerns of these architects and the solutions put forward to meet them.

Foremost we see the line of the fortification circuit embracing the entirety of the hilltop. This immediately presented two advantages: first, by placing the circuit on the
very edges of the crest meant that any attacker would first have to negotiate the steep
slopes before even attempting an attack on the walls above. Furthermore, even if an
enemy succeeded in reaching the base of the wall, because it was built right on the edge,
they would quickly find themselves without a foothold from which to proceed. Second,
the course of the circuit around the entire hill ensured the inclusion of its most
advantageous and highest topographical features. For example, the inclusion of the small
knoll on the northeast side of the hill within the circuit not only prevented its use against
the acropolis if taken by an enemy, but created a dogleg in the course of the walls from
which further protection was afforded to the curtains to the north and east. Finally, while
the defensive advantages inherent in the incorporation of the highest part of the hill and
the construction of an independently fortified citadel are obvious, less obvious is the fact
that elements of this citadel clearly betray an apprehension for the security of the
southeastern part of the circuit.

Even with the advantage of hindsight, the southern tongue of land – where
Philip’s forces successfully breached the acropolis – was, it seems, a defensive concern
from the very beginning. 1137 This concern is manifested in the fortifications of the citadel
and the southern part of the acropolis, where we see a concentration of military
architecture unparalleled in any other part of the site. While the northern and southern
towers in the eastern wall of the citadel certainly can be seen as logical parts of the
structure as a whole, additionally, they would have functioned to block access to the
acropolis from a southeasterly direction. It is Towers 675 and 672.7, however, that
provide the best support for this argument. Too far away to protect the eastern gate or a

1137 Especially if this area did indeed lie outside the area enclosed by the lower city fortifications. See
above.
circumvention of the citadel to the north, the location of these towers reflects a concern for protecting an approach from the south. Such a concern was certainly warranted, as the southern side of this tongue of land is the most navigable slope on the acropolis. Although no traces survive on the surface today, it is reasonable to expect that another tower or two may one day be discovered south of Tower 672.7 on the southern side of the hill.

In the location of the eastern gate, and conceivably the northern one also, we see further examples of the relationship between the natural terrain and the man-made defenses. Of the former, if its location is to be reconciled with the area marked 669 on Orlandos’ plan, then the small return of wall to the north may represent the remnants of the northern tower alluded to by Leake.\textsuperscript{1138} Whether or not the northern citadel tower represented the tower to the south of the gate mentioned by Leake, the location of this gate was strongly defendable. It is, I believe, safe to assume that this part of the acropolis was enclosed within the lower city circuit and the gate was intended to provide access between the two. To even reach this gate, therefore, the lower city fortifications would first have to be taken. In this worst-case scenario, the location of the gate ensured that accessing the acropolis itself would be no easy task. Flanked on the south by the north \textit{temenos} of the Athena Sanctuary, the northern citadel tower, and the steep slope of the citadel, movement through this gate would be funneled in a western direction through a very narrow corridor running below and parallel to the north wall of the citadel. Finally, if an enemy managed to navigate the missiles raining down from the citadel and

\textsuperscript{1138} Leake (1830:2.73).
continued to advance, they would be forced by the terrain in a northwest direction where they would meet resistance from the southern flank of Tower 644.

The other acropolis gate, while equally well positioned and presumably also accessible from the lower city, had less in the way of natural defenses. Accordingly, to increase the strength of this entrance and to compensate for the generally flat approach in front, the north gate was provided with a number of tactical elements. The south temenos of the Asklepieion, for example, appears to extend further east than its function required, limiting a direct approach on the gate to a space of only around 20 m. Moreover, Orlandos’ “ἀπήδημα της βουβάλας” Tower, would have provided protection from any unwanted approach from the slopes on the northeast side of the acropolis hill. Finally, any hostile force funneled directly towards the gate from the north, would find its unshielded right side vulnerable to missiles fired from Tower 652.6, immediately to the right of the gate.

As alluded to above, in terms of general defensive planning, the acropolis of Alipheira is very practically suited to its purpose. Located just north of an arable plain, on the crest of a considerable hill, it was for the most part defendable without being too high or inaccessible. The western and southern halves of the hill, are precipitous to the point that some scholars have questioned the existence of a circuit on these sides at all.1139 The acropolis and lower city fortifications compensated for any shortcomings in the topography on the east and north sides. Furthermore, not only was the hill flanked by the Phanari and Zelechovitiko River valleys to the east and west respectively, adding to the already considerable natural defenses of the site, but at a height of some 160 m, the

1139 E.g. Lawrence (1979:461); Gavrili (1976:41); Hellenic Ministry of Culture: http://odysseus.culture.gr/h/3/eh351.jsp?obj_id=2412;
defensive advantages afforded by the elevation of the acropolis were considerable [Fig. 6.19]. Frazer writes, “From the citadel, and indeed from the whole summit of the ridge, there is a magnificent view [to the north] over the valley of the Alpheus for miles and miles. All the mountains of northern Arcadia are spread out like a panorama” (see Fig. 6.4b). From the city of Heraia and the Alpheios valley to the north, to the plain stretching below on the south, from the mountains defining the territory to the west, to the city and chora of Theisoa to the west, nearly the whole territory of Alipheira was visible from its acropolis.

![Fig. 6.19. Panoramic composite view of territory from acropolis (facing SE to SW)](image)

6.1.4 Chronology

Based on the history of the site, the known archaeological record, and the style of the walls themselves, a provisional chronology for the fortifications at Alipheira may be ascertained. Regarding the recorded history of the site, two events are especially relevant to the story of the city walls. We know, for instance, from Polybius’ detailed account that Philip and his forces laid siege to the city in 219 BCE. Like at ancient Psophis, this attack seemingly provides a fitting *terminus ante quem* for the fortifications of both the acropolis and the lower city. While Polybius brings us no closer to a possible date for the circuits’ inception, fortunately, Pausanias does provide a clue. He maintains that in 370

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1140 Frazer (1898:4.299).
1141 Polyb. 4.77-78.
BCE, Alipheira was one of the settlements that participated in the synoikism of Megalopolis. Moreover, as he implies that only a part of the population actually relocated to the Great City, “it is certain that the city was not abandoned.” Orlandos is undoubtedly correct in supposing that the fortifications must have been built before some (or even most) of its population was displaced to Megalopolis. Although it is logical to assume that a construction project on the scale of Alipheira’s fortifications would demand the full economic resources and labour force of a unified settlement, part of Orlandos’ argument for a pre-370 BCE date for the circuit derives from evidence gathered from the archaeological record.

Although Orlandos did not excavate any part of the fortifications, his work to uncover the Sanctuary of Athena has a bearing on the present discussion. For example, excavations determined that the Temple of Athena likely dates to ca. 500-490 BCE and the nearby statue base – presumed to have held the famous Athena statue commented upon by Pausanias – has also been dated to the fifth century BCE based on the letter forms of the partial surviving inscription. Orlandos maintains, therefore, that it is unreasonable to suppose that by the middle of the fifth century BCE, the acropolis would possess a great temple of Athena and a colossal statue of the goddess, but not a fortification circuit. While the argument derived from this evidence is suggestive, even credible, it is far from conclusive. A closer look at the walls themselves, however, does lend support to an early, likely fifth century BCE, date for their construction.

1142 Paus. 8.27.4.
1144 Orlandos (1967-68:32). Although he is referring only to the acropolis fortifications, the same should hold true for the lower city circuit. The same argument is made for the date of the fortifications at Alea; see Chapter 4, section 4.1.4.
Based on the style of masonry of the fortifications, Scranton corroborates Orlandos’ opinion, maintaining that that the walls of the acropolis were probably in existence during the fifth century BCE. Lawrence too feels that the circuit was constructed “probably in the fifth century, certainly before 370.” The actual trace of the acropolis, moreover, accords surprisingly well with Winter’s general criteria for fifth century BCE circuits in the Greek world. For example, of these early systems Winter writes that “wherever possible, the wall followed a natural line of defense…the top of steep hill or the edge of a ravine, the rim of a plateau, and so forth. Occasionally some unused territory may have been included within the walls for the sake of the natural defenses it afforded.” To be sure, attempting a more accurate description than this one, relating the relationship between the walls and topography at Alipheira, is hardly possible.

The form and function of both the curtain and the towers are also indicative of a fifth century BCE date and a time before the widespread use of artillery. As mentioned, the curtains on the acropolis are only ca. 2.75-3.00 m thick, while those south of the Athena Sanctuary are limited to a thickness of ca. 2 m. The relative slenderness of these curtains – compared to most of the other Arkadian examples discussed so far – suggests they were conceived before the invention of artillery, when their main function was not to withstand heavy missiles, but to keep enemy soldiers out. Furthermore, the limited use of towers, widely distributed strategically at irregular intervals, and with long stretches of unflanked curtains between them, is also characteristic of fifth century BCE defensive

1147 Scranton (1941:82).
1148 Lawrence (1979:461).
systems. In describing these systems, Winter again offers a general explanation which describes the situation at Alipheira perfectly; he writes, “fifth-century systems generally employed towers only at specially vulnerable points: at angles, or where the wall traversed a stretch of level ground, or stood on a gentle slope.” Finally, the complete lack of posterns in the acropolis circuit is also in harmony with an early date. As Winter notes, in the fifth century BCE, the impregnability of the circuit remained the most important consideration and “we should not expect posterns to be widely employed in early-acropolis circuits.”

While the lower city fortifications were likely in place by 370 BCE, those on the acropolis were certainly in position by that time. Ultimately, the trace of the circuit, the style of masonry, the specific tactical elements such as the utilization of the towers and curtains, and the lack of tactical elements such as posterns, are all characteristic of a ‘passive’ defensive outlook. They are also all general characteristics of a fifth century BCE defensive system conceived before the widespread use of offensive or defensive artillery. In short, without the aid of excavated material to narrow the scope, the evidence suggests that the acropolis circuit at Alipheira was constructed sometime in the late fifth or early fourth century BCE.

6.2 Ancient Phigaleia

Ancient Phigaleia – or Phialia as it was alternatively referred to on coins and inscriptions – was undeniably a polis in the political and social sense of the word. Employing the guiding principles established by the CPC, Nielsen presents evidence

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1151 Ibid.
which leaves little doubt of this fact.\textsuperscript{1153} Briefly, we see Phigaleia listed as a \textit{polis} in the political sense in accounts of the Delphic \textit{naopoioi} (ca. in 360s BCE) which tell of the city’s collective donation of money for the construction of the new temple.\textsuperscript{1154} While this same inscription represents the external and collective use of the city ethnic, the individual use of the city ethnic is provided by Herodotus.\textsuperscript{1155} Furthermore, an inscription discovered reveals that a citizen of Phigaleia was appointed \textit{proxenos} by the Aitolian League (ca. 270 BCE).\textsuperscript{1156} Finally, surviving records indicate that citizens of Phigaleia attained Olympic victories as early as the sixth century as well as in the fourth century BCE.\textsuperscript{1157} As for any tribal affiliation, although Tausend maintains that Phigaleia was an Azanian community, for a variety of reasons, as argued by Nielsen, “this is highly unlikely.”\textsuperscript{1158}

In attempting to piece together the history of Phigaleia – and once it has been divorced from that of its renowned Temple of Apollo at Bassai – we are left with a only a few scattered fragments. Indeed, as noted by Adam, “le temple d’Apollon à Bassae est justement célèbre à la fois qualities architecturales dues au talent d’Ictinos, et par l’attract exceptionnel du site au milieu duquel il est élevé. Beaucoup moins connue par contre est la ville de Phigalie.”\textsuperscript{1159} The earliest recorded episodes, in a pattern that would define the city’s history for centuries to come, were military in nature, characterized by a series of

\begin{itemize}
  \item \textsuperscript{1153} See Nielsen (2002:586-88).
  \item \textsuperscript{1154} \textit{CID} II 4.III.1 and 45; see also Diod. 15.40.1-2 for use of the term \textit{polis} in a political sense.
  \item \textsuperscript{1155} Hdt. 6.83.2.
  \item \textsuperscript{1156} \textit{IG} IX.1\textsuperscript{2} 13.19.
  \item \textsuperscript{1157} \textit{Olympionikai} (nos. 95, 99, 102, 392).
  \item \textsuperscript{1159} Adam (1982:180).
\end{itemize}
conflicts between Phigaleia and the Lakedaimonians. A number of factors lie at the root of these conflicts, not least of all the location of the city and its shifting allegiances.

Located in the southwest corner of Arkadia, close to the frontiers of Messenia and Triphylia, Phigaleia was often – willingly or unwillingly – drawn into the larger conflicts of the area. According to Pausanias, it is in 659 BCE that the first encounter took place, when, as a result of their frequent aid to the insurgent Messenians, a Spartan army besieged and then occupied the city of Phigaleia.\footnote{“…it took place when Miltiades was Archon at Athens, in the second year of the thirtieth Olympiad [i.e., 659 BCE]” (Paus. 8.39.3).} In the well-known story, the Phigaleian refugees then sought the advice of the Oracle at Delphi who told the exiles that they could only recapture their city “if they took with them one hundred picked men from Oresthasion.”\footnote{Ibid., 8.39.4.} The soldiers of Phigaleia with the help of their fellow Arkadians from Oresthasion eventually met the Spartan forces, fulfilled the prophecy, and re-took their city. The animosity with Sparta, however, would continue and the following centuries would witness the attack and occupation of Phigaleia several more times in the fifth century, between 421 to ca. 414 BCE, and again ca. 401-395 BCE.\footnote{Cooper (1976:703).} Finally, Diodorus tells us that in 375 BCE the city expelled a pro-Lakedaimonian faction from their city, whereupon the exiles, after taking possession of nearby Heraia, made excursions against Phigaleia before retreating to Sparta.\footnote{Diod. 15.40.}

In the third century BCE, like many Arkadian poleis, Phigaleia was embroiled in the wars between the Aitolian and Achaian Leagues. As a member of the former, Polybius informs us that in 222 BCE Phigaleia was used as a base for Aitolian mercenary
troops, from which raids were conducted into the territory of Messenia. Before long, however, “the people of Phigalia, hearing of what had taken place in Triphylia, and disliking the alliance with the Aitolians, rose in arms and seized [their city].” When the Aitolian mercenaries had been driven away, the citizens delivered themselves and their city to the forces of Philip and became members of the Achaian League. Because the site of Phigaleia has never been excavated, very little is known of its subsequent history. Surface material and chance finds from the Roman period and later, however, suggest that although the site went into decline in late antiquity, it has more or less remained continuously occupied.

It is clear from the four sizable chapters in his narrative that Pausanias found much to satisfy his curiosity for myth and the sacred in and around the city of Phigaleia. And although it was likely these hallowed places that drew the author to the area, he did occasionally pause to take stock of some of the city’s secular structures, including the fortifications. Of the city’s defenses, Pausanias writes, “Phigaleia lies on high land that is for the most part precipitous, and the walls are built on the cliffs. But on the top the hill is level and flat.” Although Pausanias was the first to record his visit and offer a description of the city’s fortifications, he would not be the last.

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1164 Polyb. 4.3.
1165 Ibid., 4.79.
1166 While Cooper (1976:703) asserts Phigaleia was a member of the Achaian League, Nielsen (2002:588) maintains membership can be assumed but not explicitly attested. Cooper is certainly correct, however, as Achaian League coins bearing the name “ἈΧΑΪΩΝ ΦΙΓΑΛΕΩΝ” and “ΦΙΑΛΕΩΝ” (ca. 208 BCE) are known (Head 1963:418; Gardner 1963:15).
1167 Cooper (1976:703)
1168 Paus. 8.39-42. On the Temple of Bassai, see Cooper (1996). For other sanctuaries in the area, see Jost (1985:82-98); and Cooper (1972:363-37).
1169 Paus. 8.39.5.
While, in the words of Meyer, we may not know which “europäische Wiederentdecker der Stadt war,”\textsuperscript{1170} we do know which European travelers visited the area following in Pausanias’ footsteps.\textsuperscript{1171} Without a doubt these men were lured by a desire to see the Temple of Bassai, second only “to the one at Tegea for the beauty of its stone and for its symmetry,”\textsuperscript{1172} but certainly also by a wish to glimpse the other sacred places described so enthusiastically by the Periegate. Fortunately, however, and again like Pausanias, many of these 19th century travelers and writers also stopped at Phigaleia. While at the site, these writers could not fail to observe and comment on the extensive and relatively well-preserved fortifications. Consequently, even if these writers only stopped at the site as an afterthought, or as a place from which to visit the Temple of Apollo, their combined writings represent one of the most extensive early archives about the fortifications of any Arkadian polis.

Like the history of travel to Phigaleia, the history of scholarship proper on the site is dominated by an interest in the Temple of Bassai. For example, the first work devoted exclusively to the site, Meyer’s article in the \textit{Realencyclopädie der Classischen Altertumswissenschaft},\textsuperscript{1173} largely concerns this temple. Still a narrow focus can be excused, since without any archaeological excavation and the paucity of historical references, little can be said in general about the remains within the city itself. The fortifications, however, are a different matter. It is clear from the chronicles of the early travelers, that a century and a half ago, just as today, not only can most of the city circuit

\textsuperscript{1170} Meyer (1938:2068).
\textsuperscript{1171} Gell (1817:79-80); Leake (1830:1.490-497); Boblaye (1836:165); Ross (1841:97-99); Curtius (1851:1.318-24); Rangabé (1857:84-89, pl. VII); Clark (1858:254-55); Bursian (1862:2.250-54); Welcker (1865:272-75); Wyse (1865:2.18-25); Frazer (1898:4.390-91).
\textsuperscript{1172} Paus. 8.41.8.
\textsuperscript{1173} Meyer (1938).
be traced in its entirety, but much of it still stands to a considerable height. Consequently, although never an independent study in its own right, the fortifications of Phigaleia received some scholarly attention in the second half of the 20th century. More recently, Cooper, well-known for his work on the Temple of Bassai, turned his attention toward the topography of the city’s immediate surroundings, where he observed a number of interesting architectural features. Finally, in the early 1980s, Cooper narrowed his focus to the city itself, and with his colleague Myers, set out to trace and map the city walls by combining “ground reconnaissance with the latest technological advances in low-altitude balloon photography.” Thanks to their efforts, the archive of 19th century observations on the fortifications of Phigaleia has been supplemented – if not supplanted – by the first accurate and detailed plan of the city walls.

6.2.1 Geography and Topography

Ancient Phigaleia is situated in the southwest corner of Arkadia, close to the borders of Triphylia and Messenia [Fig. 6.20]. As Jost maintains, while from a strictly geographical point of view, “la région se rattache plutôt à la Triphylie (elle est séparée du reste de l’Arcadie par de hautes montagnes)... historiquement parlant, elle est arcadienne.” This part of Arkadia is distinguished from the rest by its especially inhospitable topography, notable for its relative lack of open plains or arable land. Instead, it is characterized by a number of river valleys, radiating in all directions, having been carved into the otherwise all pervasive and steep mountainous terrain. Meyer is

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1174 E.g., Scranton (1941:109, 164, 175); Winter (1971a:32, 111-12, n.23); Adam (1982:180); Lawrence (1979:117-18, 441).
1175 Cooper (1972).
1176 Cooper and Myers (1981).
certainly not exaggerating with his claim that Phigaleia possesses the most extreme mountain location of all the cities of ancient Arkadia.\textsuperscript{1178} The feeling of remoteness and desolation inherent in the area’s topography is a recurring theme in the travel narratives of the 19\textsuperscript{th} century and we find descriptors such as “wilde Einsamkeit,”\textsuperscript{1179} “karge Lande,”\textsuperscript{1180} “natürliche Schroffheit,”\textsuperscript{1181} “rauhes Bergland,”\textsuperscript{1182} “sauvage,”\textsuperscript{1183} and similarly, “savage grandeur,”\textsuperscript{1184} used to describe the site.

The ruggedness of the terrain around Phigaleia is largely the result of three factors: the neighboring mountains, the uneven terrain of the site itself, and the two sources of water surrounding and defining it [Fig. 6.21]. The most conspicuous natural feature of the site is the Neda River valley. Bounding the site to the south and west, this

\textsuperscript{1178} Meyer (1938:2068).
\textsuperscript{1179} Curtius (1851:1.318).
\textsuperscript{1180} Ibid., (1851:1.319).
\textsuperscript{1181} Ibid., (1851:1.321).
\textsuperscript{1182} Bursian (1862:2.251).
\textsuperscript{1183} Boblaye (1836:165).
\textsuperscript{1184} Frazer (1898: 4.390).
precipitous gorge is of tremendous depth, falling over 100 m from the Phigaleian plateau to the river below. Furthermore, approximately 2 km east of the city flows a tributary of the Neda still known by its ancient name, the Lymax. This river, originating near the modern village of Dragogio, flows south down a narrow valley, joining the Neda southeast of Phigaleia. “The other sides [of the city],” as observed by Frazer, are “surrounded by a semicircle of mountains.”\footnote{1185}

Pausanias tells us that Phigaleia is enclosed by mountains, specifically, “it has Kotilion on the left, and another mountain projecting on the right, Mount Elaion. Kotilion is just five miles from the city; there is a place there called Bassai.”\footnote{1186} Based on Pausanias’ orientation, if Mt. Kotilion lies to the northeast of the site – identified, of course, by the great temple – then Mt. Elaion must be located south and southwest of the city, on the opposite side of the Neda River.\footnote{1187} These boundaries, as well as others,
correspond to the territory of Phigaleia, estimated to cover ca. 125 km². Mt. Kotilion likely represented the eastern limit of the territory – and the boundary with the Messenian polis of Eira – while the north slope of Mt. Elaion formed the southern extent of Phigaleian land. To the west, the Yervitsa Valley (just west of modern Stomio) represented the border with Triphylia, and to the north, the chain of hills collectively known as Mt. Mintha separated Phigaleian territory from that of Alipheira.

Surrounded by these natural features is the city itself [Fig. 6.22]. As noted by Pausanias, the site resembles a plateau that is “mostly precipitous and high in the air.” While this plateau, as noted, is defined on the south and west by the deep valley of the Neda and on the east by the Lymax, the northern part of the site is defined by a tall hill, representing the city’s acropolis. The southern half of this hill, which actually comprises

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1188 A point strengthened by Jost’s (ibid) discovery of a Phigaleian sanctuary here.
1189 Ibid.
1190 Paus. 8.39.5.
the majority of the intramural space, slopes to the south. Although the northwest corner of the site includes a separate and smaller hill, overall, the plateau of Phigaleia slopes from the acropolis toward the Neda to the south. The only part of the city where the terrain exhibits a regularity approaching the horizontal is in the southeast where the modern village stands.

6.2.2 The Fortifications

A comparison between the nineteenth century travel accounts and the present conditions of the remains demonstrates that the fortifications of ancient Phigaleia have altered little over the last two centuries. As noted in these accounts, then as today, enough

Fig. 6.23. Topographical Plan of Phigaleia, from Cooper and Myers (1981:127, fig. 4)

1191 The north half of the site, comprised of the immediate southern slope of the acropolis, is the steepest part. While the southern half of the intramural area is certainly not flat, the slope is gentler.
1192 Modern Phigaleia. Formerly the village of Paulitza.
of the trace has survived to define the general outline [Fig. 6.23]. Still, some parts of the circuit are better preserved than others, especially the north and eastern sections as well as some parts of the west. For example, in the well preserved northern and eastern parts, Frazer observed the curtains still standing to over 6 m, while Cooper maintains that they stand to heights of 10 m in some areas. Conversely, the southern section of the city walls is the poorest preserved, so much so that until the most recent survey by Cooper and Myers, it was believed that no wall even existed here since the “steep slopes of the Neda gorge made protection from the flank unnecessary.”

Following the contours of the acropolis, ca. 20 m below the summit, the uppermost section of the trace runs roughly east-west for ca. 350 m to enclose the northern half of the acropolis, before continuing down the hill in opposite directions. From the eastern side of the acropolis, the enceinte follows a natural ridge for ca. 500 m in a southeasterly direction toward the Lymax Valley. On the highest point along the west edge of this valley, the circuit makes a 45° degree turn to the south and continues for ca. 300 m. From here, the circuit again changes direction, descending the hill to the southwest for ca. 275 m, and then south again, for a short stretch of ca. 175 m. From this point, the southern section of the city wall can be seen descending down the steep north side of the Neda gorge for ca. 550 m in a southwesterly direction. Here, the southernmost

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1193 The outline of the circuit was observed in nearly its entirety by Gell (1817: 79), Leake (1830:1.495), Boblaye (1836:165), Curtius (1851:1.320), Rangabé (1857:85), Clark (1858:254), Bursian (1862:2.251), Wyse (1865:2.19), Frazer (1898:4.390). Note: the tower numbers provided on Fig. 6.23 are added for convenience here and are not on the original published plan.
1194 Frazer (1898:4.390); Cooper (1976:703).
1196 I would like to thank the 39th Ephorate of Prehistoric and Classical Antiquities for granting me a study permit to examine the remains of ancient Phigaleia. Unless otherwise cited, all photographs and measurements are based on personal observation from my visits to the site in the winter 2010 and spring of 2011.
point and where the city wall is at its lowest elevation, the circuit makes a sharp turn and begins its return up the slopes of the Neda gorge to the plateau ca. 175 m above. After cresting a small hill on the south edge of the plateau, the wall meanders for ca. 850 m in a northwestern and then northern direction, where it reaches a sizable hill characterized by three small peaks. The circuit embraces all of these highpoints as it travels ca. 375 m to the east after which it changes direction once again and begins its ca. 625 m ascent to the acropolis in a northeasterly direction. The crown of the acropolis was fortified separately by a small elliptical circuit, measuring ca. 70 m east-west by 40 m north-south. The diminutive size and haphazard arrangement of the blocks suggest that this is a later, probably medieval addition – a point on which nearly all the early travelers as well as modern scholars agree – and thus it merits no further mention here.  

The fortification circuit of Phigaleia, roughly 4.5 km in total length, embraces a considerable area of approximately 1.5 km north to south by 1.3 km east to west (= 195 ha). Thrown around such a considerable area of irregular terrain, the circuit of Phigaleia is unmistakably of the uneven-type. Indeed, these fortifications are often cited as a common example of the Geländemauer type of circuit, in which the walls followed a path around the settlement taking advantage of topography and enclosing a much larger area than was inhabited, “not the frame into which the city was fitted.”

1197 E.g., Boblaye (1836:165); Curtius (1851:1.321); Frazer 1898:4.390); Meyer (1938:PG); Jost 1985:PG). Leake (1830:1.495-96) and Lawrence (1979:441) seem to be the only ones willing to entertain the notion that the separately walled acropolis is ancient.

1198 Cooper and Myers (1981:124). There is little consistency in the estimates provided for the total length of the circuit. For example, “The circumference of the city was of two miles” (Leake 1830:1.497); “[The] circuit measured about 3 miles” (Frazer 1898:4.390); “L’enceinte des murs subsiste en partie; elle offre dans son développement de 4600 métrés” (Boblaye 1836:165).

All surviving accounts recording the type of masonry employed agree that for the most part, the stone curtains at Phigaleia were built in the regular (or coursed) polygonal style. These same accounts also accept that the polygonal masonry is not uniform throughout, but is, in places, closer to an isodomic quadrangular style in appearance. Whether the polygonal style tended toward irregular ashlar, as held by Scranton, or trapezoidal, as maintained by Adam, the inconsistent mix of style is still clearly visible today in different parts of the circuit [Fig. 6.24]. Overall, however, and minor

Fig. 6.24. Examples of coursed polygonal masonry: a) well-fitting coursed polygonal (from southwest part of circuit); b) coursed polygonal tending toward trapezoidal (wall on lower southwest slope of acropolis); c) coursed polygonal tending toward irregular ashlar (east wall opposite Lymax valley)

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1200 Clark (1858:254); Rangabé (1857:85); Frazer (1898:4.390); Meyer (1938:2070); Scranton (1941:109, 164); Adam (1982:180).
1201 Ibid.
1202 Scranton (1941:109, 175); Adam (1982:180).
1203 The relationship between the apparently different styles and different chronological phases of construction is addressed below.
discrepancies aside, the masonry of the Phigaleian circuit is still best characterized as predominately coursed polygonal. Regarding the construction of the walls, the substantial stone curtains, surviving in different places to heights between ca. 6 m and 10 m,\textsuperscript{1204} suggest that they likely once existed to the level of the wall-walk, above which, the upper tower chambers would have then been raised in mudbrick and/or timber. These curtains consist of the typical inner and outer parallel faces filled with loose stones, rubble, and presumably earth [Fig. 6.25]. Furthermore, the average thickness of the curtains varies slightly in places, but in general, has been measured to between 2.10 and 3 m.\textsuperscript{1205}

![Fig. 6.25. Southwest section of western wall showing internal composition (facing NW)](image)

Every visitor to the site has noted the presence of several towers in the circuit, “some square, some round.”\textsuperscript{1206} Yet nowhere is it explicitly stated exactly how many towers exist, nor which exactly are square and which are round. Nonetheless, based on

\textsuperscript{1204} Wyse (1865:2.20); Frazer (1898:4.390); Meyer (1938:2070); Cooper (1976:703).
\textsuperscript{1205} Curtius (1851:1.320); Rangabé (1857:85); Frazer (1898:4.390); Meyer (1938:2070); Adam (1982:180).
\textsuperscript{1206} Clark (1858:254).
satellite imagery, personal observation, and the rough plan published by Cooper and
Myers, it appears that the system included 17 towers (see Fig. 6.23). With the exception
of one lonely tower on the southwest slope of the acropolis hill, every tower can be found
on the east side of the site – in the stretch of wall running from the acropolis to the east
gate. Moreover, although when taken together these towers are not really “regularly
arranged nor very uniform in character,”1207 some classifications can be made based on
their distribution, shape, and arrangement. These towers, for example, can be divided into
three groups: those located along the north (Towers 1-3), those on the northeast (Towers
4-8), and those on the east side of the circuit (Towers 9-16).

The three towers below and north of the acropolis are all rectangular in shape.
Tower 1 is ca. 5 m wide and projects ca. 4 m from the adjacent curtain. Comparable in
size and located approximately 90 m to the east is Tower 2. A further ca. 35 m to the east,
where the wall begins its southern descent, can be found the comparatively larger Tower
3. Measuring around 8 m wide by 10 m deep, this is the largest tower in the whole
enceinte. The towers in the northeastern part of the circuit – and the curtains connecting
them – present a number of interesting architectural aspects. This side of the system is
essentially comprised of three roughly equal-length concave segments of curtain,
anchored between Towers 3 and 5, 5 and 7, and 7 and 9. To shorten the distance of ca.
100-125 m between each of these projecting towers, additional towers (i.e., Towers 4, 6,
and 8) were added in the centre of each concave section. Unique on the northeast side of
the circuit is Tower 4 [Fig. 6.26]. Leake explains, “On the northern side the wall is

1207 Wyse (1865:2.20).
flanked with quadrangular towers and in the midst of them it [i.e., Tower 4] forms in one place a salient angle terminating in a round tower.”

Finally, the towers along the eastern section are the most regular in terms of their spacing and dimensions. Arranged along this ca. 300 m long stretch of wall are Towers 9-15. These towers, all semicircular with a diameter of around 7 m, are evenly spaced and approximately 35 m apart.

South of these towers, the trace continues in a southwesterly direction until it reaches the East Gate. Of the city’s three possible gates, the location of this entrance is the only one generally accepted. Unfortunately, even regarding this, the likeliest candidate for the main gate of the city, “il reste trop peu d’éléments pour que l’on puisse en faire une analyse détaillée.” The location (or even existence) of the other two gates is far less certain. Both Curtius and Adam, for example, mention the survival of a gate somewhere in the southwest part of the circuit. On the most recent published plan of the site, however, the possible location of two gates – both in the southwest part of the circuit – is provided (see Fig. 6.23). At least one gate on the southwest side of the city would be appropriate for providing convenient access to Elis, the lower Neda, and the

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1208 Leake (1830:1.496).
1209 Interestingly, like the West Gate at Kleitor, the site of this gate is still traversed by a modern road.
1210 Adam (1982:180).
1211 Curtius (1851:1.321); Adam (1982:180).
1212 Cooper and Myers (1981:127, Fig. 4) demonstrate their uncertainty by placing a question mark at the proposed location of one of these gates and labeling the other as “Temple or Gate.”
Ionian Sea beyond. Whether both of the proposed locations actually possessed a gate is uncertain, as both are well situated for that purpose; the one to the north because of the relatively flat terrain and proximity to the agora of the city, and the one a little to the south for the bottle-neck approach dictated by its strong position on the edge of the plateau.

The eastern section of the circuit, with its dense array of semicircular towers, is easily the most formidable part of the defensive system at Phigaleia. Consequently, it is not surprising that it is here where the only attested posterns are found. It is not only their survival that warranted comment by most of the early travelers to the site, but also their interesting simple stepped corbelling architecture [Fig. 6.27].\(^{1213}\) Frazer provides a clear and precise description, writing that “These ports are from 5 to 6 feet wide and are closed at the top by horizontal courses of stones, projecting one above the other.”\(^{1214}\) These posterns, placed approximately 150 m apart, were prudently positioned on the left side of

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\(^{1213}\) E.g., Gell (1817:79); Leake (1830:1.497); Rangabé (1857:85, pl. VIII); Clark (1858:254); Wyse (1865:2.20); Frazer (1898:4.390); Meyer (1938:2070).

\(^{1214}\) Frazer (1898:4.390).
Tower 11 and Tower 14. As noted by Adam, such an arrangement ensured that these towers were in a position to provide protection to the unshielded right side of any defenders who sallied forth from the safety of the walls.\textsuperscript{1215}

The final tactical constituents of the fortification circuit have been identified only relatively recently in the architectural survey of the site conducted by Cooper and Myers. Their study established that both hypoteichismata (cross-walls) and proteichismata (outwalls) were employed as part of the larger defensive system at Phigaleia.

\textit{Hypoteichismata} have been identified radiating from two different parts of the main circuit. The first can be seen stretching due north for ca. 30-40 m from Tower 1 in the centre of the northern trace.\textsuperscript{1216} The second example is much longer and better preserved. It is found in the northwest extending for ca. 165 m from the western most part of the circuit [Fig. 6.28]. Standing “at the edge of a steep precipice….\[t\]his section of the wall

\begin{flushright}
\textsuperscript{1215} Adam (1982:180).
\textsuperscript{1216} Cooper and Myers (1981:128).
\end{flushright}
skirts the top of a razorback knoll that bisects the slopes of a gorge. Finally, the *proteichismata* discovered runs north-south, spanning a small ravine approximately 150 m west of the main circuit. This outwall contains a large gate roughly in its centre, at the narrowest and deepest part of the ravine.

### 6.2.3 Strategy, Tactics, and Defensive Planning

As an archetypical example of the *Geländemauer* type of circuit, we see at Phigaleia an intricate relationship between the fortification circuit and the topography in which they were constructed. Characteristic of this system, as touched on above, is how the walls were raised around the settlement with little regard to the layout or dimensions of the city, but focused instead on including and utilizing as many natural defensive

![Fig. 6.29. Topographical map of Phigaleia showing course of walls](image)

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1217 Ibid., (1981:130). A comparison between Cooper and Myers’ plan (Fig. 6.23) with the satellite image of this Northwest cross-wall shows the former to be incorrect. Instead of curving to the northeast, the photograph shows the wall actually curves slightly to the northwest.
1219 Ibid.
barriers as possible. This is precisely the pattern employed by the trace at Phigaleia [Fig. 6.29]. With approximately 4.5 km of walls, military architects went to great lengths – literally and figuratively – to ensure that the main circuit employed all the defensive advantages afforded by the terrain.

Thus, we see the west and south sides of the city standing on a small plateau which was both defined and protected by the Neda River Valley. Even though the defenses offered by the steep slopes of this gorge were already considerable on these sides, they were amplified by the erection of the city walls atop their perimeters. We see a similar pattern in the trace of the eastern fortifications, which descending south from the acropolis stand on the heights of a narrow ridge. Further protection is given to this section by a narrow ravine lying directly below and to the east. Similar to the south and west sides, any foray made against the city from the east would require negotiating a steep slope before even reaching the walls. Finally, while the plateau on which the city stood is defined and protected on the west, south, and east sides by narrow valleys, the north too was not without its own natural defenses. The northern part of the circuit embraces the site’s highest elevation and retains all the inherent defensive advantages thereof.

While certainly effective, the course of the city wall, itself dictated by the rugged topography of the site, could not offer absolute protection. Indeed, even as most of the circuit was arranged to best exploit the terrain to a defensive advantage, unfortunately not all of the landscape was completely obliging. Consequently, some areas of the circuit were provided with additional defenses – not only to balance the shortcomings perceptible in the terrain, but also, as will be demonstrated, as a calculated means of directing and regulating the main approaches to the city. These tactical supplements are
most obvious on the northeast, east, and west sides of the circuit, where it is not coincidental that the main gates of the city are also found.

The defenses on the east and northeast side of the city are arguably the most intimidating in the entire circuit. It is on this side where both posterns and all but one of the circuit’s identified towers are located. Without a doubt, the deployment of 16 towers over a distance of ca. 800 m demonstrates a real concern for the defense of these sectors. The question remains, however, why the greater part of the city’s defenses should be concentrated in this quarter of the fortifications. The answer can be found in the surrounding topography and involves two separate but related concerns. The first relates specifically to the northeast section (between Towers 1 to 8). This stretch of wall is located directly opposite a narrow saddle – linking the Phigaleian acropolis with the hills to the east – and thus, the only practical approach from the north and northeast (see Fig. 6.29). The existence of a counter-wall here, radiating north and perpendicular to the northern trace is telling. The orientation of this wall would not only keep an enemy at a distance if they planned to circumvent the northern defenses, but its position parallel to and facing the saddle – the only conceivable position from which siege engines and artillery could be brought against the city – provided another platform for defensive enfilading.

The well-fortified eastern section (between Towers 9 to 15), on the other hand, is a reaction to the second concern: namely, to protect the approach to the East Gate from the north. Access to this gate from the north was possible by way of the lower slopes of the saddle and down the narrow ravine to the east of the circuit. By taking this route, moreover, it would have been possible to all but avoid the northeast section of wall and
thus enter the head of the ravine generally unimpeded. The eastern fortifications and their
seven regularly and closely spaced towers were crucial, therefore, for providing flanking
protection against any unwelcome approaches to the city’s main gate from the north.

An equal concern for the defense of the west side of the city and its approach is
demonstrated by the exploitation of the topography and the addition of both
hypoteichismata and proteichismata. The incorporation into the circuit of the highest hills
along steep edges of the plateau in the northwest and southwest not only ensured the
maximum viewshed, but also largely obstructed any approach from these directions. Yet
the city could still be approached from the ravine defining the northwest side of the
plateau and from the west, along a narrow ravine leading up from the Neda Valley.
Consequently, we find hypoteichismata and proteichismata constructed to guarantee
command of these routes. In the northwest, one of these counter-walls was erected
leading from the westernmost part of the circuit in a small arc down to the valley floor.
That this arc opens toward the northeast suggests it was designed to command the
approach from that direction. Traffic from the northeast, therefore, would be forced to
circumvent the west side of the city at a safe (and easily observable) distance along the
valley floor until it joined the narrow ravine leading up from the Neda Valley. This
narrow passage is defined by the northwest edge of the plateau and a small hill to the
southwest of the city. Whether directly from the Neda Valley to the west or by way of the
valley to the northwest, this small ravine represented the only feasible approach to the
western side of the city. Accordingly, hypoteichismata were built at the entrance of this
passage, separated by a small opening or gateway. Since this opening still corresponds to
the modern route to the Neda Valley, which was presumably the ancient route as well, the main function of this wall must have been to reinforce the main access to the city.1220

When taken together, the hypoteichismata and proteichismata on the west side of the city, as well as the powerful defenses characteristic of the northeast and eastern part of the circuit, are essentially different parts of the same system; a system which, with the help of the natural terrain, was designed not only to protect the approaches to the city, but to actively manipulate them. In other words, with this system, the military architects ensured that not only the terrain, but the fortifications themselves would dictate the main approaches to the city and its gates. The rough and inconsistent topography of the area limited the number of routes to the city to those leading from the southwest, northwest, and the northeast [Fig. 6.30]. The hypoteichismata and proteichismata, as alluded to, made certain that the approach to the West Gate from a southwest or northwest direction was forced to follow a single route. Similarly, a combination of the topography and the

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1220 Cooper and Myers (1981:132).
positioning of the eastern and northeastern parts of the circuit, limited access to the East Gate to a single route – one flanked by the most imposing part of the circuit.

6.2.4 Chronology

Most of the early travelers who visited Phigaleia were content to simply classify the fortifications as “cyclopic,”

1221 or as being from “remote antiquity.”

1223 Obviously, as noted by Meyer, such cautious and indefinite descriptions are not very helpful and get us no closer to narrowing down a precise chronology. It was around the middle of the 19th century, however, when Clark became the first visitor to Phigaleia to propose a specific date for the fortification circuit. Based on his limited understanding of the construction, he maintains that “rude masonry [is] of an order intermediate between the polygonal and the Hellenic and may perhaps date from the seventh century BC.”

1225 Far from being based solely on his grasp of the masonry – as his statement would imply – the date recommended by Clark must have been influenced by his interpretation of Pausanias. Pausanias tells us that as a result of their frequent aid to the rebellious Messenians, “[in 659 BCE] the Lakedaimonians…invaded Phigalia… and sat down to besiege the city. When the walls were in danger of capture the Phigaleians ran away.”

1226 Even if Pausanias’ historical account is accurate, it is likely that he is describing an earlier, smaller, and more simple circuit – one that is no longer visible today nor even

1221 Wyse (1865:2.20).
1222 Rangabé (1857:85).
1223 Leake (1830:1.495).
1224 Meyer (1938:2070).
1225 Clark (1858:254).
1226 Paus. 8.39.3.
necessarily in the same general area as the present circuit. Certainly this would explain why it was so promptly and easily taken by the Spartans in a time before any significant advances existed in the field of Greek siege warfare. Ultimately, however, for no other reasons than the sheer size and tactical complexity of the fortification system as it exists today, a seventh century BCE date seems much too early. This is the consensus among modern scholars, who would instead place the construction of the city walls at Phigaleia in the Classical or Hellenistic period. Still, as is often the case, even within this more restricted temporal frame there is little agreement and there are four general arguments: that the walls are from the fifth century BCE, the fourth century BCE, a mixture of the fifth and fourth centuries BCE, or they belong to the Hellenistic period.

Scranton describes the Phigaleian walls as regular polygonal with irregular ashlar, which he dates to about 450 BCE. Yet it would appear that he never actually visited the site and instead formed his opinion based on a photograph. Regardless, he tells us that this date is “based on no specific external evidence, but on the general probabilities of the historical background viewed in relation to the sequence of periods seen in the masonry at the site” Scranton is alone in his claim for an exclusively fifth century BCE date. Proponents for an early fourth century BCE date, are equally sparse and include only Winter and Lawrence. It should be noted, however, that Lawrence’s trust in an early fourth century BCE date is misleading as it is based on spurious evidence. Specifically, it is derived from comparing the overlap gate in the separately fortified Phigaleian acropolis to those early fourth century BCE examples at both Mantinea and

1227 Scranton (1941:109).
1228 Ibid. (1941:164, 174).
1229 Ibid. (1941:159).
Stymphalos.\textsuperscript{1230} As the walls of this acropolis are almost certainly medieval, as discussed above, such a comparison – and the date derived from it – is irrelevant. While admitting that “the walls of Phigaleia cannot be securely dated on external grounds,”\textsuperscript{1231} Winter nonetheless argues for a fourth century BCE date. The crux of his argument rests on the similarity in the size and general character of the Phigaleian circuit compared to that at Messene. As the fortifications of the latter were almost certainly constructed in the wake of the Battle of Leuktra, Winter believes Scranton’s date is a century too early. Thus, even though “the walls of Phigaleia have a slightly less developed appearance than those of Messene,”\textsuperscript{1232} Winter finds it difficult to date them later than ca. 375-50 BCE.

Several early travelers to the site took certain elements of the fortifications – including different masonry styles and/or tower arrangements – as proof of more than one phase of construction. Leake, for example, believed that the towers on the northeast and east sides of the circuit “were added at a later age to the original enclosure which probably had few or perhaps not any towers.”\textsuperscript{1233} Similarly, based on the different masonry employed, Curtius maintains, “dass man mit gutem Grunde verschiedene Zeiten der Erbauung annehmen kann.”\textsuperscript{1234} Still, it was Boblaye who was the first to assign a date to the two different building phases, writing that the Phigaleian circuit is “un beau modèle de l’architecture militaire des Grecs au temps de la guerre du Péloponnèse; leur construction moins régulière que celle des remparts de Messène montre des restaurations

\textsuperscript{1230} Lawrence (1979:441).
\textsuperscript{1231} Winter (1971a:111 n.23).
\textsuperscript{1232} Ibid.
\textsuperscript{1233} Leake (1830:1.497).
\textsuperscript{1234} Curtius (1851:1.320).
qu’on peut attribuer à l’époque de ces derniers.”

More recently, both Meyer as well as Cooper are of the same general opinion, that while parts of the circuit may date as early as the fifth century BCE, some time around the middle of the fourth century BCE portions of the circuit were rebuilt for the addition of square and circular towers.

Finally, and at the opposite end of the chronological spectrum is the argument of Kirsten and Kraiker, who maintain that the fortifications of Phigaleia date exclusively to the Hellenistic period. Although their argument is also based on a comparison with Messene, it differs from those outlined above. Specifically, because nearly the whole valley is enclosed within the circuit at Messene, they believe the site to be a typical example of a Hellenistic period Fluchtburg or refuge site. Consequently, if the Phigaleian circuit is similar to that of Messene, and if their Hellenistic date for Messene is accepted, it follows, therefore, that Phigaleia must also be Hellenistic. As most scholars, however, do not in fact accept a Hellenistic date for the construction of the Messenian fortifications, then a Hellenistic date for the walls of Phigaleia is also unlikely. Winter removes any final doubt, suggesting that “in specific details (frequency of towers and posterns, size of towers, use of open roof-platforms, as well as of crenellations rather than solid screenwalls, little provision for artillery) Messene and Phigaleia are the very antithesis of Hellenistic [fortifications].”

Having dismissed an Archaic period date as too early and a Hellenistic date as too late, by process of elimination it is left to determine, if possible, whether the walls belong

1235 Boblaye (1836:165).
1236 Meyer (1938:2070); Cooper (1976:703).
1237 Kirsten and Kraiker (1967:422).
1238 Ibid.
to one building phase in the fourth century BCE or whether they are a product of the fifth century BCE and modified in the fourth century BCE. Without excavation, however, such an attempt is ultimately wasted, not only because most of composite elements of the Phigaleian circuit refused to be compartmentalized neatly into distinct chronological periods, but also because the chronological distinctions themselves are largely subjective. In other words, the masonry employed, the trace of the walls (i.e., *Geländemauer*-type circuit), and the size, type, and distribution of towers at Phigaleia, would not be out of place in either the late fifth or early fourth century BCE Peloponnese. Even if the posterns and the outworks (*hypoteichismata* and *proteichismata*) are generally characteristic of fourth century BCE systems, there is no way of knowing whether they are contemporary with the main circuit.

Most scholars do agree on one point, namely that the length of the circuit suggests that the considerable intramural area at Phigaleia could never have been completely occupied and thus, the site is best understood as a *Fluchtburg* or refuge site.\textsuperscript{1240} The one apparent exception is Lawrence, who, while agreeing that the intramural space was greater than the immediate needs of the population, maintains that the “local resources were certainly inadequate to build the strong walls of Phigaleia.”\textsuperscript{1241} Consequently, instead of a functioning *polis*, “only as a border fortress for all Arcadia can the wall have been worth its cost, of which presumably every confederate state bore a

\textsuperscript{1240}Curtius (1851:1.321); Rangabé (1857:85); Meyer (1938:2069); Kirsten and Kraiker (1967:422); Winter (1971a:111-12, n. 23); Lawrence (1979:117-18).
\textsuperscript{1241}Lawrence (1979:117). Yet the same ‘local resources’ were certainly adequate to build the Temple of Apollo at Bassai.
share.” Lawrence is justifiably alone in his assertion. On the other hand, Kirsten and Kraiker, as mentioned, would put the walls of Messene (and by comparison, those of Phigaleia) in a Hellenistic context. While noting the similarities with Messene, Winter believes that “on account of its location Phigaleia was sufficiently involved in the power-politics of the early and mid-fourth [century] to have made the building of such a refuge just as desirable during that period as in Hellenistic times.” Indeed, similar to many other Arkadian poleis, the Phigaleians had a troubled relationship with Sparta in the fifth and early fourth century BCE. We know, for example, that Sparta attacked and occupied Phigaleia several times in the fifth century BCE, between 421 to ca. 414 BCE, and again ca. 401-395 BCE. Moreover, Diodorus tells us that in 375 BCE the city expelled a pro-Lakedaimonian faction from their city, after which these exiles, having taken possession of the Arkadian city of Heraia, made excursions against Phigaleia. Finally, five years later saw Phigaleia unite with most other Arkadian poleis into a Federation to limit Spartan aggression and incursion into their territory. Winter is certainly correct, therefore, that the construction of such a circuit would have been appropriate before the Hellenistic period.

Whether constructed in the late fifth century BCE, the early fourth century BCE, or during a time spanning these periods, the Geländemauer-type circuit and its function

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1242 Ibid., (1979:118). ‘Presumably’ being the key word here, as there is no external evidence to suggest that Phigaleia functioned as an Arkadian border fort. Indeed, the evidence outlined above (see section 6.2) clearly demonstrates that Phigaleia was a polis in the accepted and conventional use of the term. Lawrence’s scenario would not only make Phigaleia unique among Arkadian settlements, but to the best of my knowledge, in the entire Peloponnese.


1244 Cooper (1976:703).

1245 Diod. 15.40.
as refuge site are only intelligible if the circuit was constructed in a single phase.\footnote{1246}

Certainly, in the absence of a fortified acropolis or citadel, the different approaches available toward the city would have made a partially fortified area essentially worthless. The circuit is only effective because it embraces all of the plateau and its highest points, leaving no advantageous terrain outside of the system. Furthermore, as explored above, the relationship between the topography and the circuit actively limited the approaches to the city to essentially two directions. Thus, despite the considerable size of the circuit, the approaches would have been difficult and predictable as to require a minimal number of defenders at a given point. In this way, “the disadvantages of an extended perimeter were therefore balanced by the far smaller number of men required in each sector.”\footnote{1247} Whether the posterns, the outworks, or some (or all) of the towers were added to the circuit at a slightly later date can only be confirmed by archaeological excavation. Until then, however, the available evidence suggests that, on the whole, it is reasonable to suppose that the Phigaleian circuit was constructed sometime in the late fifth to early fourth century (ca. 425-375 BCE).

6.3 Ancient Halous

It is almost certain that if not for a brief mention by Pausanias, a few lines found inscribed on a block at Delphi, and the work of one diligent German scholar, the site of ancient Halous would remain all but unknown today. Nielsen maintains that “Halous deserves inclusion among the poleis of Arkadia only because it may have had a

\footnote{1246} The different masonry styles may indicate that different teams of masons were working at the same time in order to complete the lengthily circuit as quickly as possible.
\footnote{1247} Winter (1971a:112).
Delphic theorodokos” in the late fifth/early fourth century BCE.\textsuperscript{1248} Although we cannot unequivocally confirm an independent polis status for Halous based on the attestation of a theorodokos alone,\textsuperscript{1249} such a conclusion may be reached on the basis of historical probability. Perlman, for example, maintains that in half a century of employing the theorodokoi lists as political documents, “not one of the hundreds of toponyms found in the lists has been securely identified as a community which was itself part of a larger state at the time of the list’s compilation.”\textsuperscript{1250}

In tracing the progress of the Ladon from its source near Kleitor until it joins the Alpheios, Pausanias tells us that, “it flows first beside a place Leukasion and Mesoboa, through Nasi to Oryx, also called Halous, and from Halous it descends to Thaliades and a sanctuary of Eleusinian Demeter.”\textsuperscript{1251} While this is the only mention of the site in the surviving corpus of ancient literature, it was enough to entice several early travelers to attempt to ascertain its location. Their attempts were mostly made in passing – just as Pausanias only mentions the site parenthetically – and had mixed results.\textsuperscript{1252} Gell was the first early modern traveler to record his visit to the area. Traveling west along the north bank of the Ladon, Gell writes that, “after crossing a stream which falls from the right into the Ladon, where there are indications of antiquity which may possibly be the remains of the temple of Asklepios, and the town of Haluns, [we] pass the bridge of Spathari.”\textsuperscript{1253} If this river is to be identified with the Xerokaritena stream that flows into

\begin{footnotesize}
\begin{itemize}
  \item[\textsuperscript{1248}] Nielsen (2002:555). For the inscription see REG 62 , p. 6 1.10.
  \item[\textsuperscript{1249}] Perlman (1995:135).
  \item[\textsuperscript{1250}] Ibid., (1995:116). The question of whether Halous was a dependant polis of Kleitor, as is often suggested or implied, is discussed below in Section 6.3.1.
  \item[\textsuperscript{1251}] Paus. 8.25.2. Other translations (e.g., Frazer 1898:4.287) suggest that the river flows through Oryx and Halous, suggesting that they are different places.
  \item[\textsuperscript{1252}] Halous is variously referred to as Haluns, Alus, Halus, or Halous in the different travel narratives.
  \item[\textsuperscript{1253}] Gell (1817:121).
\end{itemize}
\end{footnotesize}
the Ladon lake from the north, then Gell was correct in his identification of the ruins on the small hill beside this stream as ancient Halous [Fig. 6.31]. Moreover, as these are the westernmost ruins along the Ladon before Thaliades, this location fits well with the account of Pausanias. After Gell, however, and despite his apparently accurate identification, visitors to the area were less fortunate in their attempt.

In his travels during the early years of the 19th century, Leake supposed that “the valley northward of Syriamaki, in which a stream joins the Ladon, may have been the district of Alus.”\(^{1254}\) Later, in his *Peloponnesiaca: A Supplement to Travels in the Moréa* (1846), Leake is more specific, suggesting that “Alus or Halus, the next place on the descent of the river may be placed at the Hellenic ruins…near Glanitza [modern Mygdalia].”\(^{1255}\) Furthermore, he goes on to say that the site of Thaliades is located on the

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\(^{1254}\) Leake (1830:2.272).

\(^{1255}\) Leake (1846:228). For the modern designations of the villages mentioned in these accounts, see Pikoulas (2001:130, 322, 394, 455).
north bank near the modern village of Mouria. Unfortunately, while close, Leake was mistaken on both counts – the ruins near Mouria, where he placed Thaliades, are in fact, those of ancient Halous. Leake, however, can be commended for at least attempting to locate the site, as others were content to simply note that the site had not been identified.

Scholarly progress toward the unequivocal identification of the site and an understanding of the archaeological remains made little advances in the early years of the 20th century. For example, by 1912, the only mention of the site anywhere was in a small article in the *Realencyclopädie der Classischen Altertumswissenschaft*, which merely described Halous as “eine Örtlichkeit am Ladon im Gebiet von Kleitor, deren Lage nicht näher zu bestimmen ist.” Some three decades would pass before Halous received any further scholarly attention. Reconciling the topography of the area with Pausanias’ description and the order of the sites he mentions along the Ladon, Meyer was the first to confidently assert that the small *palaiokastro* just west of the village of Mouria was indeed the site of ancient Halous. Furthermore, Meyer’s precise and detailed account of the extant ruins – including the first and only published plan of the site – continues to represent the only published study of significance on the subject of Halous. Finally, it should be noted that Meyer’s precise identification of the site’s location is accepted by other scholars who, only on rare occasions, have cause to mention Halous at all.

1256 Ibid.
1257 Boblaye (1836:156); Curtius (1851:374); Frazer (1898:4.287).
1258 Bölte (1912a:2286).
1259 Meyer (1939a:78-82). Meyer refers to the site as the ‘*Palaeokastro Syriamu*’, Syriamu being the old name for Mouria.
6.3.1 Geography and Topography

The site of ancient Halous is located atop a small hill on the north side and at the western edge of the Ladon Lake [Fig. 6.32].\textsuperscript{1261} This hill, rising 145 m from the Ladon below, comprises a southern spur of Mount Paliovouna, from which it is separated by a narrow saddle to the northeast.\textsuperscript{1262} From the summit, moreover, the slopes of the hill fall relatively steeply in all directions, except on the northeast side opposite the saddle. While the Ladon bordered the site to the south, the Xerokaritena Valley and its south-flowing stream flank the western side of the hill [Fig. 6.33]. Finally, just east of the hill a small spur of similar dimensions radiates south from Mount Paliovouna toward the Ladon, completing the topographical envelopment of the site. Surrounded by steep mountains on almost every side, the amount of arable land in the valley is certainly limited. Today,

\textsuperscript{1261} This modern reservoir was created in the later 20\textsuperscript{th} century by the damming of Ladon River, approximately 2 km southwest of Halous. It supplies water, not electricity, to the prefecture and prevents flooding in the low lying areas. The ancient course of the Ladon would have presumably followed the same one as the meandering lake, although obviously at a shallower depth.

\textsuperscript{1262} When Meyer visited the site he estimated the lake to be 10 m deep surrounding the site (1939a:79). The overall height of this hill in antiquity, therefore, would have been closer to 155 m above the original course of the river.
most of this land is located at the east end of the valley, on and around the low peninsula where the modern village of Mouria stands. With the addition of the low-lying areas lining the original course of the river and now submerged beneath the lake, presumably, this was the main area of agricultural production for the settlement.

Nestled in the eastern half of the Ladon River Valley, the landscape surrounding the site is formidable. On the opposite shore, south of the site, the land rises from the Ladon sharply and to considerable heights. Similarly, the rugged bulk of Mount Paliovouna dominates the site to the north and west. It is only at the eastern end of the valley, near modern Mouria, that the terrain is negotiable. Such terrain must also have served to delineate the territories of the neighboring poleis (see Fig. 6.31). Opposite the Xerokaritena Valley, the long north-south running crest of Mt. Paliovouna likely formed the border between Halous and Thaliades. The eastern half of the same mountain, moreover, would have served as the boundary with Paos. Mt. Vithoulas and Mt. Drakovouni, parts of the large north-south running chain of mountains east of the Ladon Valley, would have marked the boundary with Kaphyai. Finally, rising sharply on the
south side of the Ladon River, immediately southwest of Halous, the bulk of Mt. Konstantinos operated to separate the territory of Thelpousa.

There is a suggestion in some of the literature that the north side of the Ladon Valley – including Halous – actually comprised part of the territory of Kleitor. The Dictionary of Greek and Roman Geography, for example, maintains that all the towns on the Ladon belong in Kleitorian territory. Similarly, as cited above, the brief article on Halous in the Realencyclopadie der Classischen Altertumswissenschaft, also describes the site as being located in the territory of Kleitor. Finally, even in the political map of Arkadia produced by Jost, the borders of Kleitor’s influence extend all the way south to embrace what is today the Ladon Lake. To the best of my knowledge, however, there is no evidence to suggest that the borders of Kleitor extended that far south. While Pausanias is clear about the boundaries of Kleitorian territory to the east and west, nowhere does he mention those to the south. In the absence of any evidence, archaeological or literary, it can be assumed that Halous was a small, yet independent polis.

6.3.2 The Fortifications

The modest fortification circuit at ancient Halous was positioned according to the contours of this hill, and consequently is roughly elliptical in shape and oriented

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1263 See above, section 5.3.1. This issue is further confused by the fact that this part of the Ladon Lake falls under the modern municipality of Klitoras – not to be confused with the village of Kleitoria which stands next to the ancient site of Kleitor.
1264 Smith (1873:193). It is conceivable that the authors may be referring to those settlements further to the northeast closer to the river’s origin which is near Kleitor. If that is the case, then those settlements likely did fall under the Kleitorian sphere of influence.
1265 Bölte (1912a:2286).
1266 Jost (1985).
1267 Paus. 8.23.9; 8.19.4.
northeast-southwest [Fig. 6.34]. Although no gate has been discovered, there appear to be at least 11 towers as well as an intramural citadel complex on the highest point of the hill. While the majority of the circuit in the northeast follows the 500 m contour (above sea level), parts of the southwest side lay further down the slope of the hill. Furthermore, the length of the circuit is ca. 640 m and encloses an area of approximately 1.7 ha (i.e., measuring ca. 280 m northeast-southwest by 90 m northwest-southeast).1269

The terrain within the intramural area, it should be noted, is nowhere flat or uniform, but generally rises from all directions to meet the crown of the hill in the centre. Starting at

1268 I would like to thank the 39th Ephorate of Prehistoric and Classical Antiquities for granting me a study permit to examine the remains of ancient Halous. Because much of the circuit was concealed by dense overgrowth, however, I was unable to make many useful measurements and had to rely instead on those made and published by Mayer (1939a). Unless otherwise cited, all photographs and measurements are based on personal observation from my visits to the site in the spring of 2011.

1269 Mayer (1939a:82).
the southernmost point in the system, the wall runs in a northeast direction for 75 m before beginning a gentle climb up the southeast side of the hill for ca. 45 m. From this point, the wall continues in a northwest direction dictated by the contours of the hill for ca. 125 m. The circuit then curves to the north before returning in a southwest direction, completing a ca. 150 m long encirclement of the northeast side of the summit. Finally, although most of the northwest side of the circuit is no longer preserved, it likely followed the contours of the hill for ca. 170 m before making a 90° turn to the southeast, where it continued for a final 75 m.

Fig. 6.35. Photograph showing the dense vegetation presently covering the site (facing NW)
When Meyer visited the site, much of it was overgrown and the best-preserved sections of wall were limited to the northeast and parts in the southwest.\textsuperscript{1270} The circumstances are very similar today – if not worse – and consequently most of the extant portions of the circuit, covered by dense patches of maquis, are largely indiscernible [Fig. 6.35].\textsuperscript{1271} The remains that are visible, however, are informative and can shed light on several important issues. From the diminutive size and defensively favourable position of the trace, it is clear that the walls of Halous are representative of an acropolis-type circuit. As for the style of masonry employed, as noted by Meyer, “so ist er nicht überall genau gleich, obwohl die Mauern alle aus dem einstehenden Kalk des Berges gebaut sind.”\textsuperscript{1272} Indeed, although the arrangement and appearance of the foundations are not the same throughout the circuit, they do all appear to be wrought in a coursed polygonal style. This style, however, varies considerably in quality, ranging from large generally well-cut and -fitted blocks [Fig. 6.36], to thinner slabs that appear “recht grob, die Oberfläche kaum bearbeitet, die Fugen oft klaffend”\textsuperscript{1273} [Fig. 6.37], to a combination of both [Fig. 6.38].

Although none of the curtains survive to a uniform or even consistent height, the surviving elevations of the foundations, in places close to 3 m, and the relative lack of blocks littering the immediate environs, suggest that the curtains once supported a

\textsuperscript{1270} Ibid., (1939a:79).
\textsuperscript{1271} Such was certainly the case on my visits to the site in May 2010 and April 2011. Numerous, presumably modern, terrace walls made of reused blocks and running parallel to the circuit further confuse the situation on the ground.
\textsuperscript{1272} Meyer (1939a:81).
\textsuperscript{1273} Ibid.
Fig. 6.36. Well-fitted polygonal masonry and rubble fill of Tower 5 (facing NW)

Fig. 6.37. The thin slab-like blocks of poor-quality coursed polygonal masonry from Tower 8 (Facing NE)

Fig. 6.38. Curtain between Towers 5 and 4 showing well-fitted coursed polygonal topped by smaller poorly fitted blocks (facing NW)
mudbrick superstructure. The fact that the thickness of the walls is only 1.30 m suggests that they could not have supported the weight of a stone superstructure, even to the level of the wall walk. Regarding their construction, unfortunately in most places, millennia of soil eroding down the slope of the hill, combined with the large amount of ground cover have obscured the internal part of the curtains, leaving only their exterior visible. Consequently, the internal structure of the curtain is nowhere directly discernable. Nonetheless, the mass of small stones visible in places accumulated directly below the curtains, strongly suggest that a core of packed rubble existed between the two faces (see Fig. 6.36).

As mentioned above, the fortification system at Halous includes at least 11 towers, all but one of which are rectangular in shape (see Fig. 6.34). With a few exceptions, these towers possess strikingly similar dimensions and regularity in their deployment. Tower 1, for example, measures ca. 5 m wide and projects ca. 3 m from the wall. Towers 3, 8, and 9, on the other hand, are slightly larger, all measuring ca. 5.80 m across and ca. 3.50 m from the curtains. Tower 4 appears only marginally larger still, with a width of ca. 6 m. Measuring 6.60 m wide and projecting 3.70 m from the curtain, Tower 5 is the largest example in the circuit. Moreover, although indiscernible on the ground today, Meyer did observe that this tower is not bonded with the flanking curtains. Finally, located at the southernmost point in the circuit is Tower 9. The only semicircular example at Halous, Meyer estimates that it projects 3.50 m from the surrounding curtains and has a radius at 5.70 m.

1274 Ibid., (1939a:80). Presumably because of the dense overgrowth, Meyer was only able to attain the thickness of the wall in one place, specifically, in the section running northeast from the corner of Tower 11.
1275 All tower measurements are taken from Meyer (1939a:80).
1276 Ibid.
Besides the fairly uniform dimensions, the spacing of the towers is also generally regular. Indeed, most of the towers are spaced approximately 30-35 m apart except in the more vulnerable areas of the circuit where the spacing is closer. In the curved section of the trace in the northeast opposite the saddle, for example, Towers 3 and 4 were placed only ca. 15 m apart, while Towers 4 and 5 were separated by a distance of ca. 20 m. The space of ca. 80 m between Towers 6 and 7, and that of ca. 75 m between Towers 8 and 9 are the longest uninterrupted sections of curtain in the circuit. This section of the city wall, however, is poorly preserved and since its exact course has not been fully traced, it is not inconceivable that there existed other towers here which no longer survive. In other words, it is interesting to note that if a tower existed halfway between Towers 6 and 7, and another existed between 8 and 9, then the spacing would be consistent with the rest of the system.

The final component of the city’s defenses is a complex of structures located within the circuit, on the very summit of the hill. The principal building is a large rectangular structure with robust polygonal walls measuring 39.60 m long by 13.80 m wide.\textsuperscript{1277} Internally a transverse wall divides this building into two sections, measuring 17.10 m and 22.50 m (I and II respectively in Fig. 6.34).\textsuperscript{1278} As for the function of this enigmatic structure, Meyer is only willing to mention that “Diese Mauern scheinen nur einen offenen Hof umschlossen zu haben.”\textsuperscript{1279} Less than 5 m to the northeast of this structure is an isolated tower (III in Fig. 6.34). Measuring 7.30 x 6.0 m, the 0.65 m thick

\textsuperscript{1277} Ibid.
\textsuperscript{1278} Ibid.
\textsuperscript{1279} Ibid., (1939a:81).
walls of this tower still stand to a height of 2 m.\textsuperscript{1280} Finally, a few meters lower and to the
east of this tower is yet another tower-like edifice. Meyer describes this structure as being
essentially comprised of two joined towers, each with walls 0.70 m thick and measuring 6
m in length with a width of 4.50 (IV and IVa in Fig. 6.34).\textsuperscript{1281} Axially aligned and
attached to IV and IVa was another structure, measuring 9.80 m long (V in Fig. 6.34).\textsuperscript{1282}
Taken together, Meyer maintains that this complex of towers and buildings represents a
last line of defense, or at the very least, served as an arsenal for the city’s garrison.\textsuperscript{1283}

6.3.3 Strategy, Tactics, and Defensive Planning

The easiest way of gaining entrance to the acropolis at Halous today, as in
antiquity, is by way of the gently sloping saddle located immediately northeast of the site.
Because of its accessibility, proximity to the acropolis, and its relatively gentle terrain,
this saddle remains a good candidate for the location of the main settlement at Halous.
Alternatively, if people choose to clamber up the steep southeast side of the hill, they will
be immediately rewarded by a wealth of cultural material littering the slope at their
feet.\textsuperscript{1284} It is this abundance of material that led Meyer to suppose that the lower city
embraced both the upper slopes of the southeast side of the hill as well as the saddle to
the northeast.\textsuperscript{1285} While the precise size of the main settlement will remain unknown
without systematic archaeological survey or excavation, it is likely that “Die Stadt ist also

\begin{footnotes}
\item[1280] Ibid. The entrance to this tower was observed on its northeast side.
\item[1281] Ibid.
\item[1282] Ibid.
\item[1283] Ibid. This complex is discussed in greater detail below.
\item[1284] For example, although the surface vegetation was thick, I observed a plethora of roof-tiles, several
large pithoi fragments, and one identifiably Hellenistic black glazed echinus bowl fragment on this side of
the hill.
\item[1285] Meyer (1939a:82).
\end{footnotes}
If the residential area was smaller than the intramural area of the acropolis, we would, of course, expect to find the main settlement located within the acropolis walls.

A lower city surrounding the southeast and northeast sides, and within easy reach of a fortified acropolis, is a defensive strategy we have encountered before in Arkadia. As at those sites, the site chosen for the settlement of Halous demonstrates a conscious appreciation of the defensive advantages afforded by the immediate and peripheral topography of the area. Of the former, the hill is both easily defensible and accessible. The natural protection provided by the Ladon River on the south and the Xerokaritena Valley and stream on the west are considerable obstacles with inherent defensive advantages. Furthermore, the mass of Mt. Paliovouna to the north and the small spur stemming from it to the east of the site also ensured security from unwelcome advances toward the city from those directions. Regarding the latter, the general position of Halous within the eastern part of the Ladon Valley was also not without its advantages.

Despite the fact that the damming of the Ladon has caused the water level to rise considerably, the main east-west artery through the valley in antiquity must have followed the general course of the river near the bottom of the valley. That the locals told Meyer of the existence of graves along the southern foot of the hill suggests that just as today, an ancient road might have once skirted this side of the site. Halous would have been very well positioned, therefore, to command such a route through the valley. Indeed, whether coming from the direction of Paos and the Lopesi Valley to the north, from the

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1286 Ibid.
1287 E.g., Nestane and Paos. See also Theisoa (at Karkalou) and Dipaia (Chapter 8), and Kynaitha and Eutaia (Appendix II).
1288 Meyer (1939a:82).
direction of Kleitor in the northeast, from Kaphyai in the east, or from anywhere in central Arkadia to the southeast and south, access to the eastern part of the Ladon valley would necessitate passing by Halous. The fortuitous location of the hill, just outside where the narrow western part of the Ladon Valley opens up, also ensured command of the route along the river from the west and the direction of Thaliades and Thelpousa. Finally, the substantial height of the hill provided a considerable viewshed from which to watch an approach from any of these directions [Fig. 6.39].

![Fig. 6.39. Panoramic composite view from top of acropolis (facing E to S)](image)

While the larger strategic decisions inherent in the relationship between the natural topography and the choice of site are clear, more subtle are the tactical considerations which functioned to make the site more defensible. The course of the acropolis enceinte, as mentioned, was dictated by the contours and topography of the hill itself. As the trace was limited by the terrain in this way, the construction of substantial towers, deployed at fairly regular intervals, was necessary in order to safeguard all sides of the hill. Still, that some sides of the circuit were afforded greater protection suggests these parts were deemed more vulnerable than others. This is most apparent at the northeast part of the site, where not only is the largest tower in the system employed (i.e., Tower 5), but also where the distance separating the towers is the least. Such a concern is
reasonable if, as suggested above, the lower city was spread across the upper southeast slope and the northeast saddle. Accordingly, such an array of closely spaced towers would have protected the most accessible route to the acropolis from all directions – protection both for citizens, if forced to retreat, and from any unwelcome company attempting to take the acropolis.

Although the inconsistent remains in certain sections of the circuit somewhat constrain our understanding of the defensive planning envisioned by the architects of the fortification system at Halous, some deductions may be considered, however speculative. For example, even though most of the circuit on the northwest side of the hill is no longer visible, based on the patterns employed throughout the rest of the circuit, it is reasonable to assume that it too would have included towers spaced at fairly regular intervals. Moreover, we might envision another semicircular tower north of the crest, where the wall radiating from Tower 11 meets that leaving Tower 1. The strategic placement of the semicircular Tower 9 in just such a junction on the south side ensured a 270° view. A strategic placement of a similarly shaped tower to the north, overlooking both the Xerokaritena Valley and the approach from the west, would be equally advantageous.

Furthermore, applying the same line of reasoning employed for working out the probable location of the main settlement, it should follow that the main gate to the acropolis should be located nearby. A spot somewhere between Towers 6 and 7 immediately comes to mind. As mentioned above, the ca. 80 m distance between these two towers is the largest uninterrupted stretch in the circuit, and it is plausible that some
defensive installation existed in this otherwise poorly preserved section. A gate here would meet this requirement. Not only would it be close to the settlement on the slopes immediately below and to the northeast, but an enemy approaching the gate from the saddle would be compelled to advance (with their unshielded right side exposed) for some distance below the line of the wall.

Finally, it only remains to determine, if possible, the function(s) of the structures on the crest of the hill comprising the so-called acropolis complex. Lawrence appears to have no reservations about the function, asserting that the “tall detached building [which] stood on the highest point of the acropolis of Halus in Arcadia…may, like the towers inside forts and camps, have been used chiefly for signaling.” Perhaps that was one component, but such a set of structures must have had additional uses. Although independent of the main circuit, the complex referred to as I, II, and III on Meyer’s plan, does generally resemble the citadel of Alipheira and may have had a similar function. Specifically, it is conceivable that it could have been both a barracks for soldiers on watch, as well as a last line of defense if the main circuit had been breached. In this interpretation, Tower III, built on the highest point on the site, would have been well-situated to protect the citadel and at an appropriate elevation for signaling as suggested by Lawrence. The structures labeled IV, IVa, and V on the plan are more problematic – not least of all because Meyer refers to them as “Türme.” Instead of three separate ‘towers’, which makes little sense in this context – especially placed less than 7 m away

1289 Surely placing a gate further west, between Towers 8 and 9, for example, would have been too far from the residential area of the settlement.
1290 Lawrence (1979:440).
1291 Cf. Fig. 6.14.
1292 Meyer (1939a:81).
from Tower III – this complex is better suited as a single structure and is perhaps better understood as a utility building for the citadel and/or, as Meyer suggests, an arsenal for the storage and maintenance of weapons.1293

6.3.4 Chronology

The Hellenistic pottery observed by Meyer1294 and corroborated by the author, strongly suggests that the fortifications of Halous were in place by that time. Determining when they were constructed, however, is less obvious. By comparing the towers with analogous examples at Heraklea and Athens, Meyer believes the circuit at Halous was built sometime in the fourth century BCE.1295 The cumulative evidence not only supports this date, but can also help narrow down the building period to a more specific chronological range within this century. For instance, coursed polygonal masonry, Scranton tells us, was “particularly favoured”1296 in the western Peloponnese during the fourth century BCE. Particularly significant here is that the surviving examples suggest that by the late fourth or early third century BCE, this style of masonry had all but run its course.1297 Although hardly indicative in its own right, the polygonal walls of Halous do fall into this category. Arguably more convincing, however, is the evidence provided by the layout of the circuit and its composite parts.

Winter calls attention to an interesting trend in Greek fortifications, noting that during the later fourth century BCE and the Hellenistic period on the Greek mainland, “it

1293 Ibid.
1294 Ibid., (1939a:82).
1295 Ibid., (1939a:81). A date corroborated in his opinion by the discovery of a sherd from a fourth century black-glazed Attic cup.
1296 Scranton (1941:51).
1297 Ibid., (1941:50).
is not uncommon to find the circuit of a city reduced in extent.\textsuperscript{1298} Thus, as exemplified at Halous, fortification systems of these periods were often more compact and better provided with natural or artificial defenses than had been the case in the fifth and earlier fourth centuries BCE.\textsuperscript{1299} Furthermore, in response to the advances in siege warfare, at the end of the fifth century BCE, the regular and systematic use of towers became common features in Greek fortifications. By the second half of the fourth century BCE, we know that artillery found its true place as a defensive rather than offensive weapon, and the mounting of these machines became the most important function of towers.\textsuperscript{1300} In the first half of the century, however, before the common use of tension artillery and the invention of torsion machines, towers were often much smaller (i.e., First Generation). That the towers at Halous are frequent yet relatively small, and are deployed with spacing comparable to Stymphalos, Pheneos, and Alea, for example, suggests that they were built after the invention of artillery, but before its widespread use – that is, during the first half of the fourth century BCE.

Finally, another interesting feature is the relationship between Tower 5 and the adjoining curtains. Specifically, this tower, as mentioned above, is not bonded to the curtains behind. Construction of towers like this which stand independent from the curtain was largely a precautionary measure linked to advances in siege warfare. Certainly, as noted by Winter, by the second quarter of the fourth century BCE, “when mining, rams, and artillery were all in common use, the inadvisability of bonding towers

\textsuperscript{1298} Winter (1971a:114).
\textsuperscript{1299} Ibid., (1971a:115).
\textsuperscript{1300} Ibid., (1971a:156, 165, 167).
and curtains together would have been quite evident.”\textsuperscript{1301} For this reason, a lack of bonding between the towers and curtains points to a date no earlier than the late fifth century BCE, or perhaps even the first half of the fourth century BCE and certainly does not necessarily indicate a Hellenistic date.\textsuperscript{1302} Ultimately, when the polygonal masonry, the systematic use of small, regularly spaced towers, and the example of an unbonded tower are all taken together, they represent a body of evidence that strongly suggests that the fortifications at ancient Halous were constructed in the first half of the fourth century BCE.

\section*{6.4 Ancient Theisoa (Lavda)}

The study of the fortifications of the settlement of ancient Theisoa (at Lavda) is beset by two major problems: whether the site was indeed a \textit{polis}, and arguably more important, whether the remains on Lavda Hill are even those of ancient Theisoa.\textsuperscript{1303} Since the question was first raised by Leake almost two centuries ago, attempts to reconcile the considerable remains at Lavda unequivocally with a specific ancient site have produced a variety of differing opinions. All of these opinions, it should be noted, are founded in the interpretation of the testimonies provided by Pausanias and Polybius and attempts to unite their topographical descriptions with the present landscape. Pausanias, for example, tells us that “To the north of Mount Lykaion is the territory of Theisoa... There flow through the land of Theisoa the following tributaries of the Alpheios, the Mylaon, Nous,

\begin{itemize}
\item \textsuperscript{1301} Winter (1971a:167, n. 51).
\item \textsuperscript{1302} Ibid.
\item \textsuperscript{1303} Two Arkadian settlements share the name Theisoa, and the one at Lavda under discussion here is not to be confused with the Theisoa near modern Karkalou, which is examined in Chapter 8.
\end{itemize}
Achelous, Kelados, and Naliphos.”\textsuperscript{1304} On the other hand, in his discussion on the course of the Alpheios River, Polybius writes that it “flows through the territory of Megalopolis, at first with a gentle stream, and then gaining volume, and watering that whole district in a splendid manner for two hundred stades, at length reaches Lykoa, swollen by the tributary stream of the Lousios.\textsuperscript{1305}

Based on which of these two accounts is given priority, two main arguments have been forwarded: simply put, the majority of scholars, those who basically follow the authority of Pausanias place ancient Theisoa at Lavda,\textsuperscript{1306} while those who largely follow Polybius would identify the remains at Lavda with those of Lykoa.\textsuperscript{1307} Without being able to securely identify the rivers mentioned by Pausanias,\textsuperscript{1308} we are basically left with Pausanias’ site on the north side of Mt. Lykaion and/or Polybius’ site located somewhere after the confluence of the Lousios and Alpheios Rivers. While some scholars are hesitant to offer a suggestion to this problem citing a lack of evidence,\textsuperscript{1309} based on what we do know it appears Pausanias’ account offers the more plausible solution. Not only because the remains at Lavda are the only substantial ancient remains on the northern side of Mt. Lykaion, but because Polybius’ account could, in effect, be a description of a settlement located anywhere after the Lousios joins the Alpheios. Moreover, the number of tributaries and seasonal streams surrounding the site of Lavda also correspond to those mentioned in Pausanias’ narrative, even if we are unable to assign them their ancient

\begin{footnotesize}
\begin{enumerate}
\item Paus. 8.38.9.
\item Polyb. 16.17.
\item Leake (1830:2.315-16); Boblaye (1836:160); Rangabé (1857:80); Bursian (1862:2.234-35); Frazer (1898:4.386).
\item Ross (1841:101); Curtius (1851:1.359); Jost (1973:251).
\item Based on his identification of the rivers mentioned by Pausanias – and presumably on the opinion suggested by Ross a decade earlier – Curtius (1851:1.358) would put ancient Theisoa at modern Andritsena.
\item E.g., Meyer (1936:292-293); Levi (1971:467, n. 281); Feije (1994b:49).
\end{enumerate}
\end{footnotesize}
names. Finally, essentially dispelling all remaining doubt, Dutch researchers recently discovered a roof-tile with the inscription ‘ΤΗΙΣ’, which “makes it plausible that the remains on Lavda hill are those of ancient Theisoa. The location of Lykoa remains unknown.” 1310 The site of ancient Theisoa as represented by the remains on the hill of Lavda, therefore, fits best with the available evidence and the opinion of the majority of scholars, past and present.1311

If the ruins at Lavda are indeed those of Theisoa, it remains to determine, as mentioned above, whether the settlement was indeed a polis. Returning to the account of Pausanias, he mentions Theisoa (πόλις Λυκαιῶ) twice as a polis in the urban or political sense: first, among those settlements that participated in the synoikism of Megalopolis;1312 second, he mentions that although in his day Theisoa was a village (κώμη), he maintains that it was once a πόλις.1313 Adding strength to the argument that Theisoa did have a polis identity is a ca. fourth century BCE inscription discovered on a dedication at Delphi. This dedication was made by a “Theisoan Arkadian” who was a Delphic proxenos.1314 While conceding that “this man could possibly have been from the community Thisoa belonging to the Cynurian tribe in southwest Arkadia [i.e., Theisoa at Lavda],” Roy maintains that it is “altogether more likely that he belonged to the more northerly Thisoa [i.e., Theisoa at Karkalou].”1315 The only reason for his conviction, however, is the fact that “virtually

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1311 Most recently, in a paper titled “Theisoa in Arcadia. Investigations by the Netherlands Institute at Athens 1985 – 2007,” delivered at the Annual Open Meeting of the Netherlands Institute at Athens in the spring of 2010, Goester too maintained that the available evidence suggests that the remains on the hill of Lavda are indeed those of ancient Theisoa.
1312 Paus. 8.27.4.
1313 Ibid., 8.38.3.
1314 SEG xiv. 455. On this inscription, see Bousquet (1954:432-33).
1315 Roy (1972b:78).
nothing is known of Cynurian Thisoa’s history beyond its subordinate status”1316 – hardly a convincing argument and one that can be dismissed as unpersuasive to say the least. Instead, in the absence of further evidence, we are forced to entertain the possibility that the Theisoan man could equally have come from one of the two settlements of that name, either of which, “having a proxunus, was [therefore] an independent state.”1317

Finally, recent investigations of the site has yield a further clue which supports the notion that Theisoa was indeed a polis. An architectural survey of Lavda conducted in 2007 by a Dutch team unexpectedly produced a previously unknown inscription from the site’s citadel.1318 Grieb reports that the small inscription preserved the names and privileges provided to several Argive theorodokoi when they came to Theisoa to announce not the panhellenic games, but the celebrations for Hera at the Argive Heraion and for Zeus at his temple in Nemea.1319 Although in relatively poor condition, based largely on the letter forms, this decree has been dated to ca. late fourth or early third century BCE.1320

Roy was certainly correct on one point, namely that we know next to nothing about the history of Theisoa. We do not even know to what tribe Theisoa belonged, for Pausanias mentions Theisoa among the Kynourian cities absorbed by Megalopolis,1321 but later states that it was a city in Parrhasia.1322 Although Theisoa was listed among those cities that participated in the synoikism of Megalopolis, it is not certain that such a

1316 Ibid.
1317 Ibid.
1318 Goester et al. (2009:200); Mattern (2010).
1319 Goester et al. (2009:201).
1320 Ibid.
1321 Paus. 8.27.4.
1322 Ibid., 8.38.3.
decision was ever implemented. Finally, it is likely that sometime between the fourth century BCE and Pausanias’ visit in the second half of the second century CE, Theisoa was reduced from a *polis* to a village.

Despite the paucity of historical information – or indeed, perhaps because of it – Theisoa witnessed a steady stream of early travelers to the site, especially in the years around the middle of the 19th century. 1323 Most of these men, however, were more interested in weighing in with their opinions regarding the question of the site’s identification and less with the standing remains. It was not until the end of the century with Frazer’s account that the archaeological remains received proper attention. 1324 So meticulous and methodical was Frazer’s account, that it not only represented the first truly scholarly examination of Theisoa, but ensured that as a study, it would not be surpassed for three quarters of a century, when the site finally came to the attention of modern scholarship.

In 1978 a team of Dutch scholars began an investigation at the site. Their preliminary exploration of the visible architectural remains on Lavda Hill, including the fortifications, was enough to convince them of the potential of the site, and plans were made for a more detailed archaeological campaign. 1325 Thus, between 1984 and 1988, archaeological investigations were carried out on the hill under the auspices of the Netherlands Institute in Athens. 1326 Focusing on the mapping of visible remains and limited excavation on the summit, archaeologists hoped to gain a better understanding of

1323 Gell (1817:87); Leake (1830:2.18-19, 2.315-16); Boblaye (1836:160); Ross (1841:101); Curtius (1851:1.358-59); Rangabé (1857:79-80); Bursian (1862:2.234-35).
1324 Frazer (1898:4.386-88).
1325 Goester et al. (1981).
1326 For preliminary reports, see Feije et al. (1988); Feije (1989); Feije (1993).
the settlement, its buildings, and its history.\footnote{Goester et al. (2009:193).} In fact, for such an arguably minor site, with little known history and whose actual identification has been questioned, the archaeological work being conducted at The Isoa represents some of the most substantial research being conducted on any site anywhere in Arkadia. The final reports of these investigations have largely been published, including a detailed and very valuable study of the fortifications by Feije.\footnote{Feije (1994). For the other reports, see Goester (1993); Goester (1994); Goester (1995); Goester and van de Vrie (1998); Goester (2005).} Consequently, as one of those rare Arkadian polis fortifications to receive detailed study, the following analysis necessarily draws heavily upon the published findings. Research on ancient The Isoa, largely focused on the intramural architectural remains, continues today.\footnote{Goester et al. (2009); Mattern (2010).}

6.4.1 Geography and Topography

The site of ancient The Isoa sits atop Lavda hill on the south bank of the Alpheios River [Fig. 6.40]. This hill rises on all sides from a small plateau, itself defined on the

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\footnote{Goester et al. (2009:193).}
\footnote{Feije (1994). For the other reports, see Goester (1993); Goester (1994); Goester (1995); Goester and van de Vrie (1998); Goester (2005).}
\footnote{Goester et al. (2009); Mattern (2010).}
north and east by the deep Alpheios Valley, on the south by the lower northern slope of Mt. Lykaion, and on the west by the Mylaon River Valley.\textsuperscript{1330} Standing where the north side of the plateau meets the lower slopes of Lavda hill, between 280 and 360 m above the Alpheios River, is the modern village of Theisoa.\textsuperscript{1331} Lavda itself rises a further ca. 200 m above the uppermost part of the village, some 577 m above the Alpheios, and 757 m above sea level. Although generally conical in shape, the hill is not really uniform as the gradients of the slopes vary considerably [Fig. 6.41].

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig641}
\caption{Topographical plan of Lavda hill from Feije (1994:53, fig. 3)}
\end{figure}

The summit of the hill is relatively flat at the 720 m contour, only sloping gently from north to south – it is this contour that the fortification circuit generally

\footnotesize
\textsuperscript{1330} On some maps, the Mylaon River is also called the Arkoudoremma River.
\textsuperscript{1331} Feije (1994:49). Formerly the village of Lavda. The name was changed in 1915.
follows. Not all of the summit is level, however, and approximately the middle third of the intramural area is occupied by a 20 m rise. From the summit to the modern village the northern slope of Lavda is very steep, dropping 77 metres over an aerial distance of 100 metres.\(^{1332}\) By comparison, the same drop of 77 m on the western and southern sides of the hill is spread over a distance of 350 m and 250 m respectively.\(^{1333}\) Like the southern side, the slope on the eastern face of the hill to the plateau is also fairly gentle. Both the north and east sides of the plateau, however, become considerably steeper upon their descent toward the Alpheios. Indeed, based on the fact that while the north slope falls ca. 600 m from the summit of Lavda to the bed of the Alpheios, and that on the southern side one only has to descend 300 m to reach the bottom of the hill and the bed of the Soultina River, Feije is correct in his claim that “the northern side of Lavda is also its protective back side.”\(^{1334}\)

The heights afforded by Lavda hill and its especially formidable north slope represent only a fraction of the advantageous features afforded by the topography of the area. Such advantages were complemented by other natural features that also served to provide protection – especially to the more vulnerable west, south, and east sides of the hill (see Fig. 6.40). The deep V-shaped Alpheios Valley would have provided a considerable natural barrier on the north, northeast, and east side of Theisoa. The west and southwest sides of the hill were similarly confined by the Mylaon and Soultina Rivers. Consequently, it was only the northwest part of the hill that was not protected by a watercourse at its base. Furthermore, the landscape provided Lavda with further natural

\(^{1333}\) Ibid., (1994:55, 57).
\(^{1334}\) Ibid., (1994:57).
defenses in the form of four remarkably similar-sized hills surrounding the site on every side. Some are isolated, like the hill of Kalogria (941 m) on the opposite side of the Alpheios to northeast, and the hill of Matesi (834 m) northwest of the site; while others are foothills of Mt. Lykaion, such as Tsouka (872 m) and Chelmos (789 m) on the southwest and southeast respectively.\textsuperscript{1335}

These same topographical features served to define and separate the site from the surrounding \textit{poleis} and settlements [Fig. 6.42]. Matesi hill and the northwest ridge of Kalogria must have represented the boundary between the territories of Theisoa and Bouphagon, while the same Matesi and the Mylaon River valley on its west side likely served as the border to Alipheiran territory. To the northwest, Kalogria hill and the confluence of the Alpheios and Lousios Rivers stood between Theisoa and Gortys, whereas the Alpheios south of this confluence served to divide the territory of Brenthe from Theisoa. Although these features served to generally delineate the

\textsuperscript{1335} Ibid., (1994:57).
territory of Theisoa from the surrounding settlements, the actual amount of arable land in the territory would have been considerably smaller than the total area within these boundaries would suggest. Indeed, as most of the territory is actually comprised of rugged hills and deep valleys, agriculture would have been largely limited to the slopes of Lavda hill and the valley to the south between Chelmos and Tsouka hills.\footnote{1336}

### 6.4.2 The Fortifications

A comparison of early description of the site with the present remains on Lavda hill would indicate that the fortification circuit of Theisoa has apparently changed little in the last two centuries. Feije attributes this to Theisoa’s relative isolation, “away from the mainstream of tourism and modern development….which might threaten the ancient ruins.”\footnote{1337} Even if the condition of the remains has not changed for centuries, a walk around the site today reveals that not all of the circuit has survived to the same degree and some sections of the wall are clearly better preserved than others.\footnote{1338} Still, even in those areas where not a single block remains \textit{in situ}, owing to a careful examination of the walls and the terrain, the complete circuit has been mapped and can easily be followed on the ground.

Roughly trapezoidal in overall shape with a small separately fortified citadel, the course of the Theisoan circuit reflects the natural topography, marking the transition

\footnote{1336}{Although the modern villagers apparently gave up agriculture completely in 1991, on their first visit to the site in the late 1970s, Dutch researchers not only observed various crops being cultivated on the slopes, but were told by locals that in the first half of the 20th century, these slopes supported figs, olives, vines, tobacco, and certain nuts (Ibid., 1994:55).}
\footnote{1337}{Ibid., (1994:52).}
\footnote{1338}{The following observations and photographs were made on my visit to the site in June 2010.}
between the relatively flat intramural area and the steeper slopes outside the walls.\textsuperscript{1339} The circuit runs for a total length ca. 835 m with an intramural area measuring 385 m from the West Gate to the East Gate by about 150 m from the north wall to the South Gate [Fig. 6.43].\textsuperscript{1340} The south and southeastern sections of wall are the poorest preserved parts of the circuit. From the West Gate, the south wall descends gradually in a southeasterly direction in a straight line reaching the South Gate after 195 m.\textsuperscript{1341} East of this gate, the wall continues for ca. 60 m before bending to the northeast. This, the southeast wall, begins an uninterrupted descent to the East Gate, 135 m away and is the lowest part in the circuit.\textsuperscript{1342} From the East Gate, the northeast wall follows an indented trace, ascending the slope toward the summit in a northwest direction for ca. 165 m. The remaining north and

\begin{footnotesize}
\begin{enumerate}
\item Goester \textit{et al.} (1981:654). I was not granted a study permit for Theisoa (Lavda). Unless otherwise cited, all photographs are based on personal observation from my visits to the site in the summer of 2010.
\item Feije (1994:61). Goester \textit{et al.} (1981:654) on the other hand puts the distance at 400 m east-west by 170 m north-south.
\item Feije (1994:67).
\item Ibid., (1994:71).
\end{enumerate}
\end{footnotesize}
west walls are very well-preserved. The former, beginning 44 m west of the northwest corner of the citadel,\textsuperscript{1343} descends down the north side of a small rise in a straight line for 154 m where it meets the west wall.\textsuperscript{1344} Finally, the west wall – the best-preserved section in the entire system – follows a southwesterly route, joining the West Gate after ca. 70 m.

A relatively compact circuit with an equally small intramural area constructed on the summit of a sizable and defensible hill, suggests that the Theisoan fortifications are an example of the acropolis-type of circuit.\textsuperscript{1345} Nowhere in Feije’s otherwise detailed publication on the walls is the superstructure of the walls discussed. He does argue that an exposed core, an absence of finishing on the uppermost courses, and piles of blocks extending beyond the wall, suggest that in places “the wall must originally have been higher,”\textsuperscript{1346} and “one can expect at least a few more layers on top.”\textsuperscript{1347} Feije is undoubtedly correct, but this argument gets us no closer to determining the superstructure.

The maximum surviving height of sections of the circuit are more informative in this regard. For example, part of the northeast wall survives to a height of 3.20 m,\textsuperscript{1348} the north wall to 2 m,\textsuperscript{1349} and the south wall to 2.80 m.\textsuperscript{1350} The walls of the citadel, although

\textsuperscript{1343} The citadel is discussed in detail below.
\textsuperscript{1344} The 44 m between the east limit of the northern wall and the northwest corner of the citadel is comprised of a worked bedrock ridge 2.25 m high which may have supported a superstructure. (Goester \textit{et. al.} 1981:655; Feije 1994:75).
\textsuperscript{1345} In the publications on the site, the separately fortified enclosure within the larger circuit is referred to as the acropolis. As the whole site is best understood as an acropolis in the normal sense of the term, the internal fortified enclosure will be referred to here as the citadel.
\textsuperscript{1346} Feije (1994:62).
\textsuperscript{1347} Ibid., (1994:64).
\textsuperscript{1348} Ibid., (1994:74).
\textsuperscript{1349} Ibid., (1994:76).
\textsuperscript{1350} Ibid., (1994:67).
slightly higher, also survive to comparable heights: its west wall to 4 m,\textsuperscript{1351} and the south to a height of just 3 m.\textsuperscript{1352} Indeed, the lack of debris in the vicinity of the south citadel wall led Feije to propose that “the original height of the wall cannot have been much greater than it now is.”\textsuperscript{1353} Even allowing for the possibility that some blocks have fallen, the original average height of the stone foundations for the circuit and the citadel would not likely have exceeded 4 m. Furthermore, although there are no flat or finished surfaces surviving, the walls are preserved to a more or less consistent height [Fig. 6.44]. The short but relative uniform surviving height of the walls, therefore, suggests that the stone foundations once supported a mudbrick superstructure.

![Fig. 6.44. Photographs showing uniform height of surviving curtains: a) west wall and Tower 1 (facing SW); b) north wall (facing E); note the steep northern slope](image)

\textsuperscript{1351} Ibid., (1994:79).
\textsuperscript{1352} Ibid., (1994:81).
\textsuperscript{1353} Ibid., (1994:83).
Fig. 6.45. Photographs showing roughly coursed polygonal masonry from a) west wall (facing SE); b) west wall of citadel (facing E)

Because much of the wall is so well-preserved, determining the style of masonry and details of the curtain construction is more straightforward. The vast majority of the circuit and citadel walls were constructed in courses (or rough courses) of polygonal blocks [Fig. 6.45]. The one exception, however, is the south wall of the citadel in the surviving section east of the tower. Although also largely comprised of polygonal blocks (with some trapezoidal), here they were clearly laid in courses with better care and with cleaner joints [Fig. 6.46]. Regarding the surface treatment, the exterior face was finished to a rough quarry-face, while internally, the surface was “entirely unworked, ensuring a stronger bond between the facings of the blocks and the core.” Between the outer and inner faces, the core itself consisted of packed rubble and earth (see Fig. 6.44a). Finally, although some blocks were laid inward as headers at fairly regular intervals (ca. every 2 or 3 m) to increase the bonding strength between the faces and the

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1354 The predominately roughly coursed polygonal style with some areas that are better and more clearly coursed, matches well with Frazer’s (1898:4.388) description of a style that is “a sort of compromise between the quadrangular and the polygonal, but elsewhere…is almost completely quadrangular.”
1356 Ibid.
core, nowhere do they extend the width of the curtains to form compartments.\textsuperscript{1357} There is little consistency in the overall thickness of the curtains, and the widths range from 2.55 to 2.65 m in the west wall,\textsuperscript{1358} from 2.85 m to 3 m in the south,\textsuperscript{1359} to a substantially thinner 1.30 to 2.20 m in the northeast.\textsuperscript{1360} The blocks comprising the curtains are of limestone quarried directly from the bedrock of the hill. Even if one failed to notice the traces of quarrying observed in places by Feije,\textsuperscript{1361} one could hardly fail to detect the similarities between the blocks and the unusual limestone bedrock. Indeed, this bedrock, formed in a marked series of wavy strata, bears a striking resemblance to melted wax and

\textsuperscript{1357} Ibid.
\textsuperscript{1358} Ibid., (1994:62, 76).
\textsuperscript{1359} Ibid., (1994:67).
\textsuperscript{1360} Ibid., (1994:74).
\textsuperscript{1361} Ibid., (1994:84).
is a conspicuous characteristic clearly visible in many of the blocks in the circuit [Fig. 6.47].

The fortifications of Theisoa were equipped with a number of tactical features, including nine towers, perhaps as many as three gates, no fewer than three posterns, as well as an indented trace. Excluding those examples attached to the gates, six towers have been identified, the majority of which line the southern half of the circuit. Between the West and South Gates, for example, two apparently identical rectangular towers (Towers 2 and 3) were placed.\textsuperscript{1362} At 65 m apart, the distance between these two towers is comparable to the distance separating them from the adjacent gates (Tower 2 is 60 m from the West Gate and Tower 3 is 70 m from the South Gate). Furthermore, these towers are both ca. 6.65 m wide and project 3.50 m from the south wall.\textsuperscript{1363} A similar arrangement is seen on the southeast wall. Although very poorly preserved, based on the few remaining blocks and a comparison with Towers 2 and 3, a further two towers of similar size have been isolated (Towers 5 and 6). Not only are the dimensions of these towers consistent with those on the south wall, but the spacing in relation to each other

\textsuperscript{1362} Tower numbers are those provided on the published plan (see Fig. 6.43).
\textsuperscript{1363} Ibid., (1994:66).
and the neighbouring gates is also strikingly similar. Tower 5, for example, is located ca. 60 m from the South Gate and ca. 75 m from Tower 6, which in turn stands ca. 60 m from the East Gate.

The remaining two circuit towers (Towers 8 and 9) are found on the north wall and are the most interesting [Fig. 6.48]. Tower 8 is the only semicircular example at Theisoa. It has a diameter of 5.20 m and projects 2.55 m from the curtain.\footnote{Ibid., (1994:76).}

Leake was told by a “Lavdhiope peasant…that [it] was once a windmill,” he believes it was instead “a signal tower.”\footnote{Leake (1830:2.19). Presumably based on Leake’s account, Curtius (1851:1.359) too is of the opinion that tower was a signal tower built in the medieval period.} While unique in the circuit and even “slightly eccentric,”\footnote{Feije (1994:76).} it appears that this tower is contemporary with the rest of the enceinte. Approximately 75 m west of Tower 8 at the corner where the north and west walls meet is another singular installation, Tower 9. Tower 9 is set apart from the others, not only

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Fig_6.48}
\caption{Semicircular Tower 8 (facing W); b) Tower 9 (facing NW); postern marked with arrow.}
\end{figure}

\begin{footnotesize}
\begin{enumerate}
\item \footnote{Ibid., (1994:76).}
\item \footnote{Leake (1830:2.19). Presumably based on Leake’s account, Curtius (1851:1.359) too is of the opinion that tower was a signal tower built in the medieval period.}
\item \footnote{Feije (1994:76).}
\end{enumerate}
\end{footnotesize}
because it is set at an oblique angle, but because it is the only example with a postern in the flank. While the opening is 1.70 m wide, the tower itself measures 7.20 m across the front, projects 2.90 m on the west, and has an eastern flank 4.20 m in length.\textsuperscript{1367}

At the westernmost point in the system stands the first of the circuit’s three gates, the so-called West Gate [Fig. 6.49]. Its poorly preserved state, however, “permits no more than the observation that it must have been a simple narrow passage through the wall with a width of 1.75 m.”\textsuperscript{1368} The curtain continues for ca. 3 m south of this small opening until it reaches Tower 1. This tower is easily the largest at Theisoa. Although only part of its northwest face survivies \textit{in situ}, it has been plausibly reconstructed to ca.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image}
\caption{West Gate and extant northwest side of Tower 1 (facing SW) (opening marked with arrow)}
\end{figure}

\begin{footnotesize}
\begin{itemize}
\item Goester \textit{et. al.} (1981:655); Feije (1994:76). Further details of Towers 8 and 9 await the publication of their recent excavation.
\item Feije (1994:64).
\end{itemize}
\end{footnotesize}
12.50 m long, by 9.60 m wide.\textsuperscript{1369} Interestingly, the northwest corner of this tower exhibits drafted edges.\textsuperscript{1370} Feije maintains that the West Gate is an example of an axial type of passage (i.e., Winter’s Type I).\textsuperscript{1371} Yet surely such a relatively small opening, conveniently placed to the left of a large tower, is better classified as a postern.\textsuperscript{1372} A postern here would not have been unprecedented, as the circuit contained at least three others. While the example in the flank of Tower 9 has already been discussed, two more existed, also in the north wall. One can be found leading through the shared north wall of the citadel/circuit wall,\textsuperscript{1373} and the other is ca. 60 m to the west, cut through the bedrock ridge. The same postern argument holds true for the East Gate.\textsuperscript{1374} Located at the easternmost point in the circuit, this gate too is comprised of a single narrow opening flanked by a large tower (Tower 7). Although Tower 7 was placed to the right of the gate and is considerably smaller than Tower 1, its function must have been the same – to guard the adjacent postern and the approaches to the site. Whether the East and West Gates were true gates or well-guarded posterns may ultimately be a matter of semantics. The South Gate, however, leaves no doubt as to its primary function.

As deduced by Frazer over a century ago, based on the nature of the terrain, “the chief approach to the town would seem to have been from the south.”\textsuperscript{1375} It is not surprising, therefore, that this is precisely where the main city gate is to be found. The South Gate is the only monumental example at Theisoa [Fig. 6.50]. As an example of the

\begin{flushleft}
\textsuperscript{1369} Ibid.
\textsuperscript{1370} Ibid.
\textsuperscript{1371} Ibid; Winter (1971a: 209, 222).
\textsuperscript{1372} This seems to have been the opinion after the initial reconnaissance of the site, since in their description of the trace, Goester et. al. (1981:655) describe this opening as a simple door.
\textsuperscript{1373} This postern is 1.30 m wide (Feije 1994b:75).
\textsuperscript{1374} Feije (1994:72) maintains that like the West Gate, the East Gate is also an example of the axial type.
\textsuperscript{1375} Frazer (1898:4.387).
\end{flushleft}
overlap type, we see the southeast-northwest oriented opening framed on the south by the projecting Tower 4 and on the north by the south wall curtain. Because these northern and southern arms are not entirely parallel, the passage tapers towards the interior. Furthermore, the presence of two spur walls – one bonded to the tower on the south, the other extending opposite on the north – further reduces the actual width of the opening. Thus, the passage narrows from ca. 5.50 m wide on the exterior, to ca. 4 m in front of the spur walls, to a width of only ca. 2.50 m between the spur walls. It is clear that Tower 4 is considerable, even if only partially preserved. Its southern wall survives in situ for ca. 9.40 m, while the width of the tower is ca. 6.50 m.

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Fig. 6.50. Plan of South Gate from Feije (1994:68, fig. 8); entrance marked with arrow

1377 Ibid.
1378 Like Towers 1 and 7, Tower 4 too seems to have drafted edges, at least on its northeast corner (ibid).
1379 Ibid.
Finally, it remains only to discuss the architectural attributes of the citadel. A comparison of the early travel accounts with the extant remains suggest that the condition of this separately fortified enclosure, conspicuously occupying the summit of the hill, has changed little over the preceding centuries.\textsuperscript{1380} Covering an area of approximately 85 m east-west by 50 m north-south, “the walled area is oblong and comes to a point on the east side, roughly repeating the outline of the acropolis which shows the same form, protracted and ending in a point on the east side.”\textsuperscript{1381} Also similar to the main circuit, the citadel was provided with a postern, one large tower and possibly a second, and a gateway. The citadel’s largest tower was placed at its southwest corner atop a small plateau and the highest point on the whole hill [Fig. 6.51]. This tower projects ca. 3.75 m from the west citadel wall and appears to have been roughly square in shape, with sides measuring ca. 7.65 m.\textsuperscript{1382} Diagonally across from this tower at the southeast end of the citadel was the only entrance to the complex. The passage, 2.40 m wide and ca. 7 m long,

\begin{figure}[h]
\centering
\includegraphics[width=0.4\textwidth]{southwest_citadel_wall.jpg}
\caption{Southwest citadel wall (facing SE); note that the green knoll (right) is the highest point on hill and on which stood the southwest citadel tower}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.4\textwidth]{citadel_gateway.jpg}
\caption{Citadel gateway (marked with arrow) and corner of southeast citadel tower (facing N)}
\end{figure}

\textsuperscript{1380} E.g., Leake (1830:2.18); Curtius (1851:1.359); Frazer (1898:4.387).
\textsuperscript{1381} Feije (1994:61).
\textsuperscript{1382} Feije (1994:79).
is oriented north-south and protected on its east side by another tower [Fig. 6.52]. This southeast tower, measuring ca. 9 m long by 6.50 m wide, like its counter part on the southwest, has drafted edges.

### 6.4.3 Strategy, Tactics, and Defensive Planning

Above it is stated that the compact circuit, small intramural area, and its position on the summit of a defensible hill, point to the fact that the Theisoan fortifications are an example of the acropolis-type of circuit. Although technically true, the point does warrant some clarification as the Theisoan circuit is not as easily categorized. It is true that the choice of site on an easily defendable hill, with the trace and composite parts of the circuit reflecting the natural topography, serving as a safe refuge for inhabitants is a defensive strategy commonly employed, and in this regard the system at Theisoa is no different than other acropolis-type fortifications in Arkadia. Still, the acropolis of Theisoa differed from these other sites (e.g., Halous, Paos, or Nestane) and what often constitutes an acropolis in the traditional sense, in that the intramural area appears to have been largely occupied by houses, temple(s), and an agora. In other words, while as an acropolis it had the same overall defensive function, it had a different day to day function: it was where people lived, worked, and prayed. That being said, we see at Theisoa the usual (and now predictable) defensive considerations behind the choice of Lavda hill as the location for the settlement.

One might reasonably ask why the Theisoans chose Lavda and not one of the four other similar hills in the area. There is no single answer, of course, but a number of

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1384 Goester (2005:326); Goester et al. (2009:193). The existence of an agora is suggested by the remains of a stoa. The architectural remains in the intramural area are too scattered to be of any use in reconstructing a plausible street plan (Goester 2010).
reasons. Ultimately, however, it is the “combination of a strategically located and
defensible hilltop which is somewhat flat with a reasonable radius of arable land around
the top [that] makes Lavda so remarkable in comparison with the other slopes in the
vicinity.” Even if they were unsuitable for occupation, the slopes of these rejected hills
were still important features in the overall defensive strategy as they formed a nearly
continuous and rugged periphery around Lavda, severely limiting approaches to the site.
In the immediate vicinity of the Lavda, the landscape was equally amenable to the
defensive needs of the settlement on the summit. We have repeatedly come across the
Arkadian affinity for choosing sites where waterways played an important defensive role.
The situation at Theisoa is no different in this regard. Indeed, between the precipitous
Alpheios River Valley running to the north, northeast, and east of the site, the Mylaon
River to the west and southwest, and the Soultina flanking the southern slope, the
Theisoans clearly employed the natural topography around Lavda to their defensive
advantage. These rivers worked in concert with the topography of the hill itself to both
protect and dictate the main approaches to the settlement on the summit.

The impracticability of a northern approach to Theisoa has been alluded to
already. The steep northern slope of Lavda and the course of the Alpheios guaranteed as
much (see Fig 6.44b). A similar argument can be made for the eastern side of the site,
where, even though the slope is more negotiable, when combined with the Alpheios an
approach would also be difficult. In fact, the most practical approach to the summit of
Lavda was from the southeast (see Figs. 6.41 and 6.42). This side not only enjoys the

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1386 The same waterways and the springs on the hill observed by Boblaye (1836:160) and Feije (1994:73),
would have ensured the site was more than adequately watered.
most moderate incline of the whole hill – facilitating the ascent to the summit – but further down at its base, the terrain is especially suitable for directing an approach. Here a natural and narrow bottle-neck is produced, framed by the eastern terminus of the Soultina River valley to the southwest and on the north by the increasingly steep terrain as it begins its decent toward the Alpheios. Adding weight to the notion that “the northern side of Lavda [was] also its protective back side,” and that “Lavda was clearly oriented towards the south,” is the location of the city’s main – and perhaps only – gateway in the middle of the south stretch of the fortification circuit.

The placement of the main gate opposite the only practical approach afforded by the terrain of the hill is not the only way in which the topography of the hill worked to shape the form of the Theisoan fortification system. Most obvious are the course and dimensions of the trace. On the west, south, and southeast side, for example, minor deviations aside, the enceinte follows almost exactly the ca. 720 m contour line of the hill. This ensured that the flattest and habitable terrain was included in the intramural area. Rising to meet the slopes of the elevated knoll comprising the summit, the course of the northern and northeastern stretches of the circuit can also be seen as being dictated by the terrain. Furthermore, as parts of the northern trace were actually comprised of (or at least built atop) a shelf cut from the natural bedrock, we see more directly how the topography of the hill shaped the form of the circuit. The same attributes hold true for the separately fortified citadel.

1389 Indeed, the location of the main gate was one of the factors that led Frazer (1898:4,387) to logically suppose that the main approach was from the south side of the hill, “on the side away from the [Alpheios] river.”
The form of the citadel and its placement on top of the knoll instead of encircling its base, was an intricate decision dictated by both the terrain and larger defensive strategies. Indeed, if this enclosure did cover the whole circumference of this elevated rise, not only would a third of the larger intramural area have been consumed, but the approach to the citadel – this last refuge and line of defense – would have been facilitated by the relatively flat terrain. Instead, building it on top of the knoll ensured that anyone approaching would first have to ascend its southern slope under the watchful eye of the defenders above. Finally, this scenario guaranteed the additional tactical advantage of reserving the highest point of the entire site for the southwest citadel tower.

The defensive strategy of choosing a defendable hilltop surrounded by rivers and erecting a circuit that echoed its inherent topography, was complemented by a series of tactical measures ultimately aimed at making the system stronger and the city safer. First and foremost in this regard is the use of towers. The vast majority of the towers were placed along the southern side of the circuit (see Fig. 6.43). While this is certainly a reflection of the fact that the southern section is the longest in the circuit, more importantly, it also reflects a concern for protecting the main approach to the city. Moreover, although this approach was from the southeast, the regular tower spacing demonstrates a concern for unwelcome approaches from the south in general. The placement of the towers framing the southern stretch, on the east and westernmost end (Towers 7 and 1), as well as those in the extreme south (Towers 4 and 5), also made sure that there were no blind spots in the system and that approaches from the south, east, and west were attended to. Furthermore, the general elliptical shape of the trace also meant that Towers 1 and 7 were well positioned to command approaches from the northwest.
and northeast respectively. As suggested by the paucity of towers, it appears that the military architects were less concerned with the defense of the north. Only two towers were inserted into this side of the circuit, one of which does not even face north, but was set an oblique angle to face the northwest (Tower 9). While the steep north slope of Lavda below the circuit must have been deemed an effective enough deterrent, an additional tower was cautiously placed about halfway between the northwest corner and the citadel. This appropriately semicircular shaped tower (Tower 8) ensured a 180° view in front of and along the flanking sides of the northern curtain.

Besides constructing towers at regularly spaced intervals, Theisoan military architects took great care to place the largest of these towers at both the most vulnerable spots and those commanding the greatest tactical advantage. As mentioned above, the southwest tower of the citadel was built on the highest point in the city, while Towers 1, 4, and 9 were placed at the westernmost, southernmost, and easternmost part of the circuit respectively, where they could best oversee the main approach to the city as well as approach from the northeast and northwest. Taken together, these four towers, corresponding to the four cardinal points, provided a 360° view of and around the city; the viewshed from the summit is truly impressive. The hills of Alipheira and Bouphagion are clearly visible to the west and north, as is the confluence of the Lousios and Alpheios to the east; Mt. Lykaion dominates the landscape to the south. It should not be surprising, therefore, that these towers are also the largest (and presumably the tallest) in the circuit.

At 12.50 m long by 9.60 m wide, Tower 1 is the largest tower at Theisoa and certainly an example of Ober’s Second Generation artillery towers.\textsuperscript{1391} The necessity of

\textsuperscript{1391} Ober (1987:572).
such a large tower and its associated firepower here, at the western most point in the circuit, was imposed by the terrain in front of it [Fig. 6.53]. Indeed, although the southeast possessed the easiest approach from the base, the western side of the upper half of Lavda (i.e., between the 620 to 660 m contour) comprised the gentlest sloping part of the entire hill. As such, it was easily an area from which siege engines could be brought against the city – assuming they could be brought up the hill at all.\textsuperscript{1392} The same pattern of placing larger towers to confront areas of negotiable terrain immediately adjacent to the circuit is observable in Towers 4 and 7. Furthermore, this need to cover the rolling terrain likely explains the unusual orientation of Tower 9 (see Fig. 6.53). Although it is set

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Fig_6.53}
\caption{The gently sloping landscape immediately west of the city viewed from Tower 9 (facing W)}
\end{figure}

\textsuperscript{1392} Or at the very least, it represented a suitable place for enemies to muster.
obliquely between the west and northern stretches of the wall, it is aligned exactly to face the gently sloping terrain in front of it to the northwest.

The size of the largest towers, especially Towers 1, 4, and the southeast citadel tower, may also reflect the fact that since they all flank openings in the curtain, they were, in effect, perceived as the weakest spots of the circuit. The placing of the openings themselves, moreover, suggests that the architects wisely entertained the possibility that the considerable firepower of the flanking towers may not have been sufficient to keep an enemy at a distance from the walls. Accordingly, the openings beside Tower 1 and the southeast citadel tower were placed to the right of the towers, meaning an enemy would have to advance with its unshielded right side exposed in any attempt to access these openings. \textsuperscript{1393} Interestingly, this precaution was not taken for the opening beside Tower 7. \textsuperscript{1394} As an overlap type, the passage of the monumental South Gate was also well protected. Although oriented such that an enemy’s vulnerable side did not face Tower 4, the overlapping north stretch of the curtain and Tower 5 to the south could have provided the necessary offensive enfilading to both the unshielded side and/or the rear.

The final tactical component of the Theisoan fortifications is the indented trace. Comprising the section between Tower 7 and the northeast corner of the citadel, the northeast wall is the only section without towers and the only stretch that does not run in a straight line. Instead, as an indented trace, the line is broken by a series of three small jogs which turn the wall gradually to the west as it slowly makes its way up toward the corner of the citadel. From south to north, these jogs project ca. 1.50 m, ca. 1.40-1.45 m,

\textsuperscript{1393} The postern in Tower 9 is similarly placed on its right side.

\textsuperscript{1394} Perhaps the southernmost jog of the indented trace (only ca. 40 m away) was thought sufficient protection for the right side of this opening.
and ca. 1.80 m, and accordingly yield four different, but generally short, lengths of curtain. Although near the northern terminus of the indented trace, there is a “steep northern edge which makes further defensive measures superfluous,” we are left to wonder why the indented trace was constructed instead of a straight curtain with towers. The answer may, once again, lie in the topography. The northeast section of the circuit is the only stretch of wall set an oblique angle to the prevailing contours of the hill. The north wall, for example, follows a course perpendicular to the slope of the summit, while, as mentioned, the walls on the west, south, and southeast side of the circuit run roughly parallel to the ca. 720 m contour. On the other hand, as the northeast stretch runs at a ca. 45° angle to the slope of the hill, perhaps it was thought that a series of smaller stretches of straight walling could better negotiate the terrain than a long straight line. This situation accords well with Winter’s observation from other sites, where he found that when circuits contain “fairly substantial stretches of indented trace unbroken by towers…we shall find that such traces were…generally confined to areas where the wall either descended, or traversed the upper reaches of, a long and difficult slope.”

Even if the curving, indented trace was not imposed by the terrain, it did have practical advantages. Choosing a convex course instead of a straight one not only incorporated more land into the intramural area, but ensured that the citadel remained largely independent from the rest of the circuit. In other words, in such a hypothetical scenario, with the northeast wall extending in a straight line from tower 7 to the citadel’s southeast corner, the north and west walls of the citadel would also be the main circuit walls. Obviously the more walls the citadel shared with the main circuit, the more that

could be breached, and ultimately would have defeated its purpose as a last line of defense. As the remains stand, even without towers, the indented trace followed the “curved trace imposed by the terrain while maintaining its defensive character by allowing for flanking fire along the wall.”\footnote{Feije (1994b:74).} In other words, although its curved nature was likely dictated by the terrain, this stretch could have incorporated towers. The construction of an indented trace instead, therefore, was a conscious decision introduced purely for purposes of enfilading.

\subsection*{6.4.4 Chronology}

Owing to the comprehensive research campaigns carried out over the last three decades under the auspices of the Netherlands Archaeological Institute in Athens, we are fortunate to have at our disposal a considerable corpus of information concerning the archaeological history of ancient Theisoa. It is this evidence, on which this larger reconstructed history rests, that is instrumental in establishing a reliable chronology of the fortifications. Such evidence can generally be placed here into two broad categories: external evidence gathered from the excavations and other archaeological investigations, including, for example, the ceramic finds and various architectural surveys; and the other category, of course, are the walls themselves. By employing all the available evidence and appropriate comparanda in this regard, a fairly reliable chronology for the Theisoan circuit may be recommended.\footnote{At least more specific than has previously been offered. On a date for the walls, Feije (1994:87), for example, only offers this: “roughly speaking, then, the subject here is the Hellenistic period.”}

Ceramics collected from both surface reconnaissance and systematic excavation provide a general chronological scope and offer a good starting point for the present
investigation. Broadly speaking and excluding finds from Late Antiquity, these ceramics range from the early fourth century BCE to the late Hellenistic Period (second/first century BCE). The architectural survey of the scattered blocks found strewn around the site tell a similar chronological story. In short, building off earlier surveys, during a two week season in the summer of 2007, Dutch researchers catalogued and photographed all 252 *ex situ* architectural blocks from the site. These blocks, some of marble and some of limestone, all belong to the Doric order, and were once tentatively thought to represent the remains of two separate structures: a marble temple dated to the Classical period based on local comparanda, and a later limestone temple (or stoa) perhaps dating to the late second or first century BCE. More recently, however, Mattern has argued that not only do all the blocks likely belong to the same temple, but that the Doric elements are reminiscent of those in the nearby Stoa of Philip at Megalopolis, and should be no earlier than the later fourth century BCE. In the 2010 Annual Open Meeting of the Netherlands Institute at Athens, Mattern largely repeated these views, but conceded that the construction of this temple may also have occurred in the early third century BCE.

In summary, therefore, both the ceramics and the architecture suggest habitation on Lavda as early as the beginning of the fourth century to as late as the second or first century BCE. That the walls were constructed sometime after the initial occupation of the hill is suggested by the fact that several architectural blocks were reused in the

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1400 For a detailed description and analysis of these pieces, see Goester *et al.* (2009:194-200). For an earlier and overlapping architectural survey, see Goester (2005). While the architectural blocks have been discovered throughout the site, the majority were found within the citadel.
1403 Mattern (2010). The perceived similarities with the Doric Temple of Athena Polias Nikephoros at Pergamon played a part in assigning this date to the temple at Theisoa.
construction of the citadel and main circuit walls.\footnote{Goester (2005:322).} Determining exactly when the fortifications were thrown around this settlement, however, requires a closer look at the constituent parts of the walls themselves.

The fortifications present a number of interesting features which can be helpful in this regard. While the limitations of stylistic dating have been mentioned previously (and frequently) and need not be repeated here, the coursed polygonal masonry of the Theisoan circuit – when taken together with the other evidence – is useful. Especially attracted to the “pleasing ruggedness and irregularity of the polygonal style,”\footnote{Winter (1971a:87).} it was the architects in the Peloponnese that “enjoyed the task of exploiting it.”\footnote{Scranton (1941:51).} Indeed, as the rest of Greece slowly turned away from the polygonal style in the later fifth century BCE, in the Peloponnese we see the development and use of coursed polygonal masonry as late as the second half of the fourth century and beginning of the third century BCE.\footnote{Ibid., (1941:69, 140).} Scranton, it should be noted, actually favours a more specific 315-300 BCE date for the origin of this coursed polygonal style. When taken together with other evidence, as suggested above, an early Hellenistic date for the Theisoan circuit becomes more plausible.

As the advantages of defensive artillery were realized in the second half of the fourth century BCE, the form and function of fortifications changed accordingly. One of the most obvious changes appeared in the towers since their most important function in Hellenistic systems was to house artillery.\footnote{Winter (1971a:167).} Indeed, with the invention of torsion

\footnote{Goester (2005:322).} \footnote{Winter (1971a:87).} \footnote{Scranton (1941:51).} \footnote{Ibid., (1941:69, 140).} \footnote{Winter (1971a:167).}
artillery around the middle of the fourth century BCE, towers became larger than before in order to house the larger caliber torsion machines and were also often more widely spaced. At Theisoa, the sizable Towers 1, 4, and perhaps 7 and the southwest citadel tower, appear to be examples of these Second Generation types.\(^{1409}\) Furthermore, with a minimum distance of ca. 60 m (and just as often as much as ca. 70 m), the relatively wide spacing of the Theisoan towers also suggests that the towers held larger caliber machines. Based on the assumption that “every tower should be so placed that the bolt-projectors within it could protect the towers nearest on either side and be itself protected by their bolt- and stone-projectors,”\(^{1410}\) it is not unreasonable to suppose widely spaced towers housed the torsion machines capable of protecting them. Thus, because those smaller towers at Theisoa (Towers 2, 3, 5, 6, and 8) are widely spaced, it is conceivable that they too housed such machines. The larger towers, in order to protect the flatter gentler parts of the hill at a considerable distance from the walls, simply would have held more of them (see above Fig. 6.53).

Further chronological clues are provided by the form and frequency of openings in the curtains – that is, the posterns and gateway. With two, and likely four posterns, it is interesting to consider that Theisoa contains as many posterns as all of the Arkadian sites thus far encountered combined.\(^{1411}\) As noted by Winter, while the fourth century BCE saw a steady increase in the use of posterns, they became very common in Hellenistic circuits, where a large number of them were often included in the plan.\(^{1412}\) True, the four

\(^{1409}\) Ober (1987:572). These towers exceed 7 m on at least two sides which, according to Lawrence (1979:389) is a characteristic common to many towers unquestionably of Hellenistic date.

\(^{1410}\) Ibid., (1979:386).

\(^{1411}\) Alea and Stymphalos both have one postern, while Phigaleia has two.

\(^{1412}\) Winter (1971a:239).
examples at Theisoa may not appear to be a ‘large number’, but in relation to the overall size of the circuit, it is a significant amount. Moreover, the fact that two were placed on the north, one in the circuit wall and one only ca. 80 m to the east in the north citadel wall, suggests they had an ‘active’ military function. In other words, care was taken to ensure that troops could sally forth from either the city itself, or from the separately fortified citadel – surely one northern passage would have been adequate if they were used only to access the countryside to the north? As a more or less standard overlap type, the South Gate, is less chronologically informative, since although these types become common in the Hellenistic period, they are seen already in the early fourth century BCE circuits at Stymphalos and Mantinea, for example.

The construction of the curtain and even layout of the circuit, especially the indented trace on the northeast side, are also chronologically valuable. While the use of headers, such as those at Theisoa, do appear by the fourth century BCE, it is in the Hellenistic period when they become much more common, often occurring at regular intervals. Furthermore, a general pattern in Hellenistic fortifications observed by Winter, is the restriction of the length of circuits. Indeed, compact and easily defendable sites – as exemplified by the compact circuit of Theisoa – become more common after the fourth century BCE. Finally, arguably the most conspicuous feature of the Theisoan defensive works is the indented trace. While the motivation for its construction specifically on the northeast side of the system has been provided above, it remains to determine what this feature can tell us about the chronology of the circuit as a whole.

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As Winter reminds us, the presence of an indented trace instead of towers was once taken as evidence of an early (likely pre-Persian Wars period) fortification circuit. As will be demonstrated in the next chapter, however, it was the work of Martin at ancient Gortys that demonstrated that some examples can indeed occur much later. Like all of the chronological markers outlined above, employing the indented trace to narrow down the date of the Theisoan circuit is only valid if “we treat the device as only one among many factors to be weighed in arriving at an absolute date.” In his admirable survey of examples of the indented trace in Greek fortifications, based on a number of characteristics, Winter establishes a criteria for establishing types, and by association, approximate chronologies for this defensive feature. In short, three categories are presented: 1) systems where towers are regularly spaced but in which the occasional jog may be substituted for towers; 2) systems where towers and jogs are present, but infrequent; and the rarest, type, 3) “whole stretches of wall laid out in a series of relatively short faces separated by frequent flanks or jogs, without any intervening towers.” Indeed, so rare is this type that Winter maintains that “we shall, I believe, look in vain for a whole series of such jogs, without any intervening towers, of the type that we encountered at Gortys and Samiko.” In fact, he had only needed to look 60 km southeast of Samiko and 10 km southwest of Gortys to observe that the indented trace comprising the whole northeast wall at the Theisoa is an example of type 3.

1415 E.g. This is the view held by Scranton (1941:157).
1416 Martin (1947-48).
1417 Winter (1971b:413).
Chronologically, this type of highly developed indented trace – with a succession of three or more jogs without intervening towers – stands at the end of an evolving sequence that witnessed simple, undeveloped forms (e.g., Rhamnous) progress to an intermediate phase (e.g., late Classical sections of the circuit at Gortys), before finally, reaching its most advance form (e.g., Hellenistic walls of Samiko and northeast wall of Gortys).¹⁴²⁰ Important for the present purposes, however, are the dates assigned to these phases. Based on comparisons with the developed examples from Asia Minor as well as Samiko and Gortys on the mainland, Winter would place this type in the Early Hellenistic period, specifically, between ca. 335 to ca. 260.¹⁴²¹ Because of the extreme rarity of the highly developed form of the indented trace, it cannot be a coincidence that the only three Peloponnesian examples come from sites in such close geographic proximity. It is almost certain, therefore, that some influence was passing between these sites. In which direction(s), however, is harder to say. Still, although the chronological range is too wide to be more precise, it is very possible that Theisoan military architects, familiar with this feature from nearby Gortys and/or Samiko, brought the initiative to their own creation atop Lavda hill.

In summary, the external evidence provided by the ceramics, architecture, as well as the two inscriptions, when taken together suggests that the hill of Lavda was inhabited perhaps as early as the early fourth century BCE and that the site of Theisoa survived into the Late Hellenistic period (second/first century BCE). On the other hand, the cumulative evidence provided by the walls themselves suggests that this site was not fortified until

¹⁴²⁰ Winter (1971b:414). Although Bisbee (1937:535) would date the walls of Samiko to the fifth century BCE, the later fourth century BCE/Hellenistic period date proposed by Winter (1971a:236-37; 1971b:415, 424) is more plausible.
some time in the early Hellenistic period (ca. 325-275 BCE). Pausanias tells us that Theisoa was one of the poleis that participated in the synoikism of Megalopolis. This may be key to understanding this discrepancy.

If the decision to relocate to Megalopolis ca. 370 BCE was implemented, then one might imagine the citizens of Theisoa leaving their homes to be redistributed among the new pan-Arkadian population there. With the failure of the great experiment and as the Arkadian Confederacy began to wane in the later part of the fourth and early third century BCE, however, many of the Great City’s inhabitants must have left to return to their ancestral homes. In this conceivable scenario, we might imagine the children and grandchildren of the original displaced Theisoans returning to their old home atop Lavda hill.1422 In the face of a constant Macedonian presence in the Peloponnese and perpetual Spartan aggression directed at Arkadia, the Theisoans of the late fourth and early third century BCE arguably lived in more uncertain times then those who had left for Megalopolis. Accordingly, perhaps they decided it was time to keep pace with most of the other Greek poleis and finally construct a wall around their small city. After disassembling the derelict structures which had laid abandoned for generations, they incorporated the old architectural pieces into their new walls. Naturally the circuit was built with the features characteristic of the time, and as such, we see in the style of coursed polygonal, large towers, a developed indented trace, and several posterns, that the fortifications of Theisoa cumulatively reflect the composite architectural features attributable to the early Hellenistic period.

1422 The idea that Theisoa must have been resettled sometime after the synoikism is discussed by Mattern (Goester et al. 2009:200).
Chapter 7: The Fortified Poleis of Southern Arkadia

This chapter surveys the fortified poleis located in southern Arkadia on an individual basis, including the sites of ancient Asea, Gortys, and Megalopolis. After establishing that these settlements were indeed poleis, and reviewing all previous scholarship on the sites, the fortification circuit of each polis is explored through the local history, the geographical and topographical setting, the architectural components of the fortifications themselves, and finally, the strategy, tactics, and overall defensive planning inherent in their construction. Based on an understanding of all of these factors, including historical probability, a chronology of construction for each site in question is then provided.

7.1 Ancient Asea

In the politics of ancient Arkadia, it was perhaps inevitable that Asea would always remain in the shadow of the more prominent and neighbouring poleis of Tegea, Mantinea, and later, Megalopolis. In the study of ancient politics in the present day, however, Asea has duly received the thorough attention that it was otherwise denied by the written sources from antiquity. Foremost in this enquiry, is the question of Asea’s political identity as a polis – an issue that has been studied in great detail by scholars and from which many conclusions may be drawn.\(^{1423}\) Although archaeological reconnaissance in the 1930s and more recently in the form of the ‘Asea Valley Survey’ (1994-96), have established the “existence of some kind of political organization in Asea…around 600

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\(^{1423}\) Forsén and Forsén (1997); Forsén (2003); Nielsen (2002:551).
BC, it is not until the second half of the 6th century that the...[evidence] allows us to speak about the existence of a polis.”

Acknowledging the fact that employing only archaeology to identify what constitutes a polis is difficult, Forsén and Forsén nonetheless maintain that such an identification for Asea at an early date can be inferred from essentially three pieces of evidence: the existence of religious sanctuaries, the size of the settlement, and parallels with neighbouring and contemporary Arkadian sites. Indeed, the existence of periurban temples at nearby Vigla (dated to ca. 525-500 BCE) and at Agios Elias (ca. 500 BCE), as well as two other sanctuaries in the neighbourhood of Asea (as hinted by the survey material collected), strongly suggest that “there existed some kind of political organization in the area that took an interest in marking borders.” Furthermore, the survey data revealed that during this time settlement at Asea was by far the largest in the area (of some 20-30 sites), exceeding 10 ha in size. Thus, in overall size and distribution of border sanctuaries, Asea appears to have followed the main developments of Tegea, Mantinea, and Orchomenos, all of which also probably became poleis during the second half of the sixth century BCE. Finally, although listed among those cities voted to participate in the synoikism of Megalopolis, it appears that Asea survived as an independent polis at least until the end of the third century BCE (and possibly as late as 146 BCE) as suggested by the city’s listing in the Delphic catalogue of theorodokoi.

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1426 Forsén (2003:252). For more on the temple at Vigla, see Romaios (1957) and Østby (1995:338-50); on the temple at Agios Elias, see Holmberg (1941); Østby (1995:350-60); Forsén, Forsén, and Østby (1999).
1427 Forsén (2003:252).
1428 Paus. 8.27.3.
Influenced by its proximity to Lakonia as well as several prominent Arkadian cities, the history of this small Mainalian polis is accordingly (and inextricably) linked to those of Mantineia, Tegea, Megalopolis, and Sparta. At the same time, however, much less is known about Asea than these other cities, as it is poorly documented in the ancient historical sources. Perhaps soon after developing into a polis, Asea joined the Peloponnesian League.\footnote{Forsén (2003:254).} Nielsen argues such a membership may be assumed, since the league included other poleis of the Mainalian ‘tribal state’ of which Asea was a member.\footnote{Nielsen (2002:553; 1996b:87, 100).} Likewise, membership in the Arkadian Confederacy can be assumed based not only on the fact that the Mainalians were members, but on Xenophon, who, in the first of the very few references in the historical sources, records that the Arkadian League army congregated at Asea in the 370 BCE.\footnote{Xen. Hell. 6.5.11.}

Pausanias, as mentioned above, tells us that Asea was one of the poleis that participated in the synoikism of Megalopolis.\footnote{Paus. 8.27.3.} Like many other participants he mentions, it is uncertain whether all, or even parts of the population relocated to the Great City. What is certain, however, is that Asea continued to exist after the synoikism. Xenophon, for example, lists Asea along with Tegea, Pallantion, and Megalopolis as those Arkadian poleis that sided with Thebes against Sparta in 362 BCE.\footnote{Xen. Hell. 7.5.5.} Yet besides the inscription recording that Asea had its own Delphic theorodokos in the later third century BCE, very little is known of the city’s history during the Hellenistic period.\footnote{For a concise summary of the major political and military events in Arkadia from the late classical through the Hellenistic period and the possible role played by Asea in these events, see Forsén (2003:254-58).}
Asean coinage issued by the Achaian League would suggest active membership in the first half of the second century BCE. After the defeat of the league in 146 BCE at the hands of the Romans, as noted by Forsén, we may assume that the city gradually declined since Strabo refers to Asea as “κώμη” of Megalopolis, while a century and a half later, the settlement observed by Pausanias lay in ruins.

Pausanias, moreover, stands first in the long line of travelers who visited the site and described his observations. While his account is noticeably brief, it is important here as the first recorded mention of the city’s fortifications. He writes, “about twenty stades away from Athenaeum are the ruins of Asea, and the hill that once was the citadel has traces of fortifications to this day.” Because of Pausanias’ accurate topographic description of Asea’s location, even before archaeological confirmation, there was no uncertainty as to its identification. Thus we see that the 19th century travelers who followed in Pausanias’ footsteps to Asea had little difficulty in reconciling his account with the site’s conspicuous fortified acropolis. Most of these men, however, added little to Pausanias’ original narrative, instead content to apparently verify Pausanias by primarily (and briefly) noting the presence of the acropolis walls. At the end of the century appeared the accounts of Frazer and Loring. Arguably representing the first modern scholarship on the site, their substantial contributions remain important in the

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1436 On the coins, see Head (1963:417-18).
1438 Strab. 8.3.12.
1439 Paus. 8.44.3.
1440 Ibid.
1441 Gell (1817:1.137); Leake (1830:1.83-84, 2.46); Boblaye (1836:173); Curtius (1851:1.264-67); Clark (1858:152-154); Bursian (1862:2.226-27).
1442 Loring (1895:32); Frazer (1898:4.414-15).
history of scholarship on Asea; the former being the first detailed archaeological
description of the visible remains, and the latter as the first to correctly suggest that the
acropolis spur-walls connected to the lower city circuit.1443

The first systematic excavations of the site – including parts of the fortifications –
were carried out in the 1930s by a Swedish team from the University of Gothenburg
under the direction of E. Holmberg.1444 Some 60 years would pass before archaeological
activity resumed at Asea in the early 1990s. In an attempt to increase and better
understand the relationship between the main site of Asea and the surrounding territory,
J. Forsén and B. Forsén initiated a three-year archaeological survey (1994-96) of the
area.1445 The final report for the ‘Asea Valley Survey’ appeared in 2003.1446 Related to the
aims of this survey is the question of when Asea became a polis – a question answered by
the Forséns in an article published in 1997.1447 Between 2000 and 2003, under the
auspices of the Swedish Institute at Athens and with the support of the Greek
Archaeological Service, the Forséns narrowed their focus and turned their attention to the
acropolis and the city walls. In an effort to obtain new information about the construction
of the fortifications, to fully trace the lower city circuit, and to gain a better chronological
understanding of the remains, the visible walls were cleaned and documented, and
geophysical prospection (resistivity) was carried out across the lower city.1448

1443 It should be noted that Loring incorrectly assumed that the lower city wall extended around the spur
walls, and that these spurs connected to the outer circuit, dividing the “intervening space into a number of
sections, rather like the water-tight compartments in a ship” (1895:32).
1444 Holmberg (1944); on the fortifications, see pgs. 132-42.
1445 Forsén et al. (2005:308).
1446 Forsén and Forsén (2003).
1447 Forsén and Forsén (1997).
1448 Dogan and Papamarinopoulos (2003); Forsén et al. (2005:308).
collaboration with Karlsson from the University of Uppsala, Sweden, the preliminary results of their attempts were delivered in 2002 and published in 2005.\textsuperscript{1449}

### 7.1.1 Geography and Topography

The site of Asea lies almost exactly halfway between ancient Megalopolis and Tegea, separated from each by only ca. 18 km [Fig. 7.1]. Although considerably smaller

![Fig. 7.1. Topographical map of Asea and surrounding area](image1)

![Fig. 7.2. The Asean plain southwest of city viewed from the acropolis of Eutaia (facing NW)](image2)

\textsuperscript{1449} Forsén \textit{et al.} (2005).
than the expansive plains of Megalopolis and Tegea to the west and east respectively, the site occupies a substantial plain in a valley bounded on all sides by mountains. This majority of this otherwise irregularly shaped plain is represented by an oval section measuring around 5 km northwest-southeast by 3 km northeast-southwest [Fig. 7.2]. From this larger plain, a narrow valley, measuring ca. 6 km long by 1 km wide, radiates in a northeasterly direction toward Pallantion and the plain of Tegea. Asea itself is located in this narrow stretch of land, about 1 km northeast of where the valley opens up to embrace the larger plain proper. Immediately south of the site (and east of the plain) are a number of small fallow hills isolated from the surrounding mountain chains and associated foothills. Finally, north of the site, there is a ca. 1 km² hollow of flat and arable land nestled between the surrounding hills.

The site of Asea itself is centred on and around a small but conspicuous flat-topped plateau, strikingly similar in size and profile to the Athenian Acropolis [Fig. 7.3].
This, the Asean acropolis, rises 54 m from the plain below and measures 240 m north-south by 120 m east-west.\textsuperscript{1450} Even though the lower slopes of the acropolis are relatively gentle all around, the upper slopes are especially precipitous on all sides except the east. Thus, while the east side is represented by a relatively unbroken and gentle rise from its base to the top, the other sides transition about halfway up to near vertical steep and rocky cliffs (see Fig. 7.3). Although seemingly freestanding and independent, the acropolis is actually the easternmost rise in a series of low hills emanating from Mt. Kandrevra to the northwest [Fig. 7.4].\textsuperscript{1451}

![Fig. 7.4. Topographical map of Asea and surrounding area](image)

Being more or less surrounded by mountains on all sides, the Forséns estimate the size of Asean territory to measure ca. 60 km\textsuperscript{2} (see Fig. 7.1).\textsuperscript{1452} While the bulk of Mount Tsimbarou marked the southern limit of Asean territory and the boundary with Lakonia

\textsuperscript{1450} Nielsen (2002:552). The acropolis is alternatively often referred to as Paleokastro in the published literature.

\textsuperscript{1451} Incidentally, Kandrevra is the old name for the modern village of Asea located on its eastern slope (Pikoulas 2001:87). The village of Asea should not be confused with the village of Kato Asea which lies immediately southwest of the ancient site on the modern Tripoli-Megalopoli highway.

\textsuperscript{1452} Forsén and Forsén (1997:175). This presumably also includes the territory of Eutaia, located ca. 4 km due south of ancient Asea. For more on Eutaia, see Appendix II.
beyond, a long northwest running spur from the same mountain separated the territory of Asea from the territories of Megalopolis and Oresthasion. To the southeast, the foothills of the smaller Mts. Tsoukna and Boziki represented a further boundary with Lakonia and also with the southern edge of the Tegean plain. Furthermore, the eastern edge of Asean territory and the western limit of the chora of Pallantion were defined by Mt. Boreion. Finally, separating Asea from the poleis in the Helisson River valley to the north were the foothills of Mt. Renissa, while the Helisson River itself as it curved toward Megalopolis must have formed the northwest limits of Asean territory.

The Helisson was not the only major river in Asean territory. Indeed, as Curtius tells us, the Asean valley is the “Mischkessel für die Gewässer der beiden Hauptströme der Halbinsel, welche im Becken dieses Thales noch eins waren und jenseits desselben ihre ganz entgegengesetzten Wanderungen beginnen.” The two rivers to which he is referring are the Alpheios and the Eurotas, the sources of both of which can be found close together in the valley, just to the east of the site (see Fig. 7.1). After the confluence of these two rivers, the united stream skirts the southern side of the site before continuing in a southwesterly direction to the modern village of Marmaria. At this point, the ancient authors agree that the river disappears, taking an underground route through the northern arm of Mt. Tsimbarou, where it divides again – with the Eurotas coming to the surface in Lakedaimonian territory to the south, and the Alpheios in the territory of Megalopolis to the west.

As is often the case with such Arkadian valley basins, Asea appears to have suffered from an excess rather than a deficiency of water. Indeed, not only is the area

1453 Curtius (1851:1.265-66).
1454 Polyb. 16.17; Strab. 8.3.12; Paus. 8.44.3-4.
around the *katavothros* often inundated, forming a marshy lake – no doubt facilitated by a number of tributaries feeding it from the north – but there is a problem with flooding at the opposite end of the valley, at the sources of the rivers.\footnote{1455} Consequently, the land east and south of the Asean acropolis is today covered in a layer of alluvium, obscuring the remains of the lower city, and as discussed below, the lower city fortifications.\footnote{1456} 

### 7.1.2 The Fortifications

The fortification circuit of ancient Asea can be divided into two parts – the acropolis and the lower city walls [Fig. 7.5].\footnote{1457} Although these two parts of the defense

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{asean_fortifications.png}
\caption{Plan of the Asean Fortifications from Forsén 	extit{et al.} (2005:316, fig.1)}
\end{figure}

\footnotetext[1455]{Although there was no lake when I visited the area in the summer of 2010 and spring of 2011, Gell (1817:137) and Curtius (1851:1.265) both observed one in the vicinity of the *katavothros*.}

\footnotetext[1456]{Again, this does not seem to be a modern phenomenon as Gell (1817:137), Leake (1830:2.46), Curtius (1851:1.266) all describe the area immediately below the acropolis as marshy.}

\footnotetext[1457]{I would like to thank the 39th Ephorate of Prehistoric and Classical Antiquities for granting me a study permit to examine the remains of ancient Asea. Because much of the circuit was concealed by overgrowth or enclosed in people’s property, however, I was unable to make many useful measurements and had to rely instead on those made and published by Holmberg (1944) and Forsén 	extit{et al.} (2005).}
system have little in common (as will be discussed below), what they do share is the fact that they are both poorly preserved. Today, the visible remains of the fortifications on the acropolis are limited largely to isolated sections along the northern perimeter, while the south spur wall at the base of the acropolis is the only part that remains visible from the lower city circuit. When the research was carried out on the fortifications by the Swedish Institute at Athens in the early 2000s, the northern spur wall was still able to be seen.\textsuperscript{1458} Presently, however, the local vegetation has reclaimed the northern spur wall and it is no longer visible.\textsuperscript{1459} While Holmberg put the surviving part of the northern spur wall at 90 m and the southern one at 112 m in length, the rest of the lower city circuit, as mentioned, is obscured by a thick layer of alluvium deposited by the nearby Alpheios River.\textsuperscript{1460} Despite the patchy remains, owing to the accounts provided by early travelers combined with the efforts of modern researchers, the trace can be reconstructed with a fair degree of certainty.

During his excursion to Asea at the beginning of the 19\textsuperscript{th} century, Leake observed that “the wall of the Acropolis is traceable round the summit.”\textsuperscript{1461} By the middle of the century the situation appears to have changed little, since Curtius too saw that the “Starke Mauerreste ziehen sich rund um den Gipfel der Höhe.”\textsuperscript{1462} By the time of Frazer’s visit at the end of the century, however, conditions had changed. Frazer reports that “Remains of

\begin{footnotes}
\item[1458] Forsén et al. (2005:309).
\item[1459] According to a photograph in Holmberg’s publication (1944:133, fig. 123), the remains of the northern spur wall were never very prominent, limited to a single course of stones providing only the roughest of outlines. This may explain why it was overlooked by all the early visitors to the site except for Loring (1895:32).
\item[1460] Holmberg (1944:133); Forsén et al. (2005:310).
\item[1461] Leake (1830:1.84).
\item[1462] Curtius (1851:1.266).
\end{footnotes}
fortification walls are said to encircle the summit, but though I walked all round the flat top looking for them, I failed to find them.1463 Whether blocks were removed from the wall to aid in the construction of the new train station at the base of the ancient site (a possibility offered by Frazer),1464 or whether they just suffered the normal degrading processes of time, these accounts make it clear that the walls once enclosed all 2.5 ha of the acropolis.1465 Tracing the course of the lower city circuit on the other hand, owes more

Fig. 7.6. Course of the lower city wall as reconstructed by Forsén et al. (2005:318, fig. 4)

to the work of modern scholars, who, employing geophysical prospection from the terminal spur walls east and south of the acropolis, have been able to penetrate the layers

1463 Frazer (1898:4.414).
1464 Ibid., (1898:4.415).
1465 Forsén et al. (2005:311). Detailed cleaning and examination of the site first by Holmberg (144:136) in the 1930s and again by the Swedish team in the early 2000s (Forsén et al. 2005:307) revealed more parts of the wall than are visible today; although not all of it survives, there is enough to confirm that it once encircled the whole acropolis.
of alluvium and debris. The preliminary results of this work suggest that “the lower
circuit wall may have had a total length of ca. 1 km, enclosing an area of about 11 ha”
[Fig. 7.6].\(^{1466}\) Although its exact course remains tentative, it is unmistakable that there
was indeed a lower city wall, as Loring suggested over a century ago.\(^{1467}\)

With a lower city circuit incorporating a well-defined acropolis, the fortifications
at Asea clearly represent an example of the uneven-type of defensive system. Discussions
regarding the superstructure of the Asean fortifications are only hinted at in the published
literature and nowhere explicitly stated. Holmberg does not discuss it at all, and
(incorrectly) believing all of the walls to be Hellenistic in date, may have assumed they
were once constructed completely of stone. B. Forsén seems to hold a similar view, as he
mentions “we [do not] know if there existed [on the acropolis] any early mudbrick walls
prior to the visible stone walls.”\(^{1468}\) On the contrary, if the acropolis walls were once
completely stone, surely more blocks would be found scattered around the slopes.
Similarly, it would take an incredible effort by the Alpheios to cover completely an all
stone lower city circuit with alluvium, leaving not a single block on the surface. The fact
that geophysical survey traced the remains of parts of the lower city wall at a depth of
only 1.30-1.50 m below the surface, makes it even less likely.\(^{1469}\)

Instead, we must imagine that the stone foundations once supported a mudbrick
superstructure. The relative uniformity in the height of what survives of the walls today
and what has been documented in the past, not only adds weight to this assertion, but also

\(^{1466}\) Forsén \textit{et al.} (2005:307). Caution is warranted here, however, as the geophysical prospection was
limited to the areas immediately south and east of the southern and northern spurs respectively and not the
entire circuit. The problem with the proposed reconstruction of the lower circuit is discussed below.
\(^{1467}\) Loring (1895:32). The plausibility of the course of the lower city wall as reconstructed by Forsén \textit{et al}
(2005) is discussed in greater detail below.
\(^{1468}\) Forsén (2003:248); emphasis mine.
\(^{1469}\) Forsén \textit{et al.} (2005:310); Dogan and Papamarinopoulos (2003:244-46, figs.3-5).
explains the paucity of *ex situ* stone blocks in the vicinity. Photographs from Holmberg’s campaign, for example, show that parts of the acropolis circuit’s foundations are uniform and only one or two courses high.\(^{1470}\) A look at the southern spur wall is equally informative, and although considerably higher and stepped to negotiate the slope, reveals a similar pattern [Fig. 7.7]. Finally, for reasons discussed below, the Forséns believe that the lower city wall was constructed in haste during a period of war.\(^{1471}\) Certainly such a

\[^{1470}\text{See Holmberg (1944:135, fig. 125) for a photograph showing the low and uniform height of the stone foundation from the northeast part of the acropolis.}\]

\[^{1471}\text{Forsén et al. (2005:312); Forsén (2003:259).}\]
constraint would have been facilitated more by the construction of curtains of mudbrick rather than of hewn stone.\textsuperscript{1472}

Although all of the Asean circuit employed the local limestone for the blocks, the acropolis and lower city walls differ considerably in masonry type and scale, not to mention the fact that the “lower city walls...are built in a totally different way from the acropolis walls.”\textsuperscript{1473} The acropolis wall appears to have been constructed in the polygonal style – whether coursed or uncoursed is unclear – with quarry-faced surface treatment [Fig. 7.8]. Furthermore, the width of the acropolis wall is 3.10 m and is comprised of the

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{image.png}
\caption{Polygonal masonry of acropolis wall immediately south of Northwest Tower (facing E)}
\end{figure}

\textsuperscript{1472} Because of the chronic wet condition of the area, perhaps the lower city circuit had a relatively high stone foundation like those employed in the walls of Stymphalos and Mantinea, for example.\textsuperscript{1473} Forsén \textit{et al.} (2005:309). Cf. with Holmberg’s (1944:132) belief that the spur walls and acropolis walls are “of precisely the same technique and material.”
typical parallel faces filled with earth and rubble.\textsuperscript{1474} These faces, it should be noted, were assembled with “rather small stones, seldom larger than 50 x 50 cm.”\textsuperscript{1475}

The preservation of the southern (and until recently, the northern) spur wall makes its investigation easier. Like the acropolis walls, the spur walls were also constructed with polygonal blocks with similarly treated faces, but instead they were laid in clearly defined courses (see Fig. 7.8).\textsuperscript{1476} The blocks used were considerably larger too, measuring up to 1.50 m long by 1 m in height; and at 3.30 m, these walls are also thicker.\textsuperscript{1477} A similar width of 3 m to 3.30 m for parts of the buried lower city wall was discovered by the geophysical survey.\textsuperscript{1478} Interestingly, the southern spur wall, built directly on the exposed bedrock issuing from the lower slopes of the acropolis, contains header courses running through its width to form compartments [Fig. 7.9]. It appears

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Fig. 7.9. Photograph showing walls of compartments in Southern Spur Wall (facing SW)}
\caption{Fig. 7.9. Photograph showing walls of compartments in Southern Spur Wall (facing SW)}
\end{figure}

\textsuperscript{1474} Forsén \textit{et al.} (2005:309); Holmberg (1944:134).
\textsuperscript{1475} Forsén \textit{et al.} (2005:309).
\textsuperscript{1476} Scranton (1941:165). The courses appear more or less of the same height and not “built in pseudo-isodomic technique” as maintained by Holmberg (1944:134).
\textsuperscript{1477} Holmberg (1944:134); Forsén \textit{et al.} (2005:309).
\textsuperscript{1478} Forsén \textit{et al.} (2005:310).
that these internal perpendicular walls correspond to the steps in the course of the wall in
order to better “anchor and hold the two wall faces together, preventing the earth fill
inside from pushing out the wall faces.”

Owing to the generally poor preservation of the fortifications, what little
information there is pertaining to the circuit’s towers and gates can be summarized
briefly. The remains of the so-called West and North-West towers are still visible, and as
such are highlighted in the most recent publication. Holmberg, however, maintains
that in “at least four places square towers are built out, from which it was possible to
command the wall.” Unfortunately, Holmberg does not mention where these towers
are located and confuses the situation further, adding that the corners on the acropolis
“are powerfully strengthened in one or two places and have probably served the same
purpose.” Since the West and North-West Towers are technically on the corners of the
acropolis, we are left with the possibility that there are four, or perhaps as many as six
rectangular towers there. Of those which are certain, the West and North-West Towers,
little remains, and what does is largely obscured by the vegetation [Fig. 7.10]. Although
these two towers were cleaned and studied in the early 2000s, no details or measurements
are provided in the Forséns’ report, other than that the North-West Tower was solid (i.e.,
there was no ground storey chamber). Holmberg’s account is equally unimpressive as
(whatever acropolis towers he is referring to) he relates only that they “are in a very bad

1480 Ibid.
1481 Holmberg (1944:136).
1482 Ibid.
1483 Forsén et al. (2005:309)
condition. As a rule there are only one or two courses of stones left, occasionally three.\textsuperscript{1484}

Fig. 7.10. a) West Tower (facing SW); b) North-West Tower (facing W); c) North-West Tower when cleaned (from Forsén \textit{et al.} (2005:317, fig. 2)

We are in a position to say only slightly more about the towers of the lower city walls, where at least four towers are attested. Three of these are found in the stretch of wall emanating from the southern spur [Fig. 7.11]. Approximately 25 m south of the southern spur’s terminus, Holmberg noted the existence of a semicircular tower (Tower I) with a radius of 5 m, “of which, unfortunately, not even the whole of the lowest course of

\textsuperscript{1484} Holmberg (1944:136).
stones is preserved.\textsuperscript{1485} Recent investigations have uncovered two more towers, also semicircular in shape (Towers II and III).\textsuperscript{1486} Interestingly, all of these towers are spaced 33 m apart or exactly 100 Greek feet.\textsuperscript{1487} Moreover, although no measurements for II or III have been forthcoming, we may cautiously assume that they are similar to Tower I with a radius of around 5 m. Not all of the lower city towers were semicircular, as the one known example from the north side is in fact rectangular. This, the Northern Spur Tower, as the name suggests, is located on the northern spur. Situated 40 m from the acropolis.

\textsuperscript{1485} Ibid., (1944:140). The tower numbers and names correspond to those used on the plan in Forsén \textit{et al.} (2005:316, Fig.1).
\textsuperscript{1486} Forsén \textit{et al.} (2005:309). Any one of these could be the round towers observed by Leake (1830:2.46) and Curtius (1851:1.266).
\textsuperscript{1487} Dogan and Papamarinopoulos (2003:247).
wall, it is almost square in shape and measures 6.60 m long by 6.45 wide.\textsuperscript{1488} This tower, apparently marking the point where the northern spur changes direction to the east, “is of special interest because there exists an inner wall face which shows that it was not filled with rubble and earth, but must have had an inner room just above ground level.”\textsuperscript{1489}

Because of the precipitous slopes on the north, east, and south sides of the acropolis, the only practical way to reach the summit is from the east. Accordingly, Holmberg discovered the only attested gate on this side, just south of where the northern spur meets the acropolis wall [Fig. 7.12]. It appears that the original gateway consisted of

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure7_12}
\caption{a) present remains of acropolis Gate (facing E); b) plan of acropolis gate from Holmberg (1944:137, fig. 128).}
\end{figure}

\textsuperscript{1488} Forsén and Forsén (2003:51). Holmberg (1944:141) claims the distance to the acropolis wall is 54 m. \textsuperscript{1489} Forsén \textit{et al.} (2005:309).
a simple opening with a stepped ramp.\footnote{Lawrence (1979:333) mistakenly refers to this gate as an overlap type.} Indeed, that it was a functioning gate and not just a ramp is evidenced by the left foundation stone for the pivot of the original door discovered by Holmberg and still lying on the site today.\footnote{Holmberg (1944:138).} Moreover, although remodeling during the late Byzantine period reduced the width to 2.50 m, the original width was some 3.75 m and thus too large for a mere postern.\footnote{Ibid.} The ramp itself is ca. 12 m long and begins at the threshold of the gate. It is comprised of a number of “low steps between 0.6 and 0.85 m. in depth, the outer surface of which is formed of a row of small, flat stones.”\footnote{Ibid.} Finally, this gate is not the only opening in the circuit, as at least one and perhaps two posterns have been identified. The Forséns interpret a small gap in the acropolis curtain wall just to the north of the West Tower as a possible postern.\footnote{Forsén et al. (2005:309).} More certain is an example found just to the east of the Northern Spur Tower, where a narrow layer of flat blocks, laid out like a threshold, are positioned perpendicularly through the width of the curtain.\footnote{Ibid.}

\subsection*{7.1.3 Strategy, Tactics, and Defensive Planning}

Consisting of a small, easily defendable but accessible hill located on the edge of a well watered plain, Asea possesses many of the strategic characteristics sought after when choosing a suitable location for a site. In terms of satisfying the requirements of an acropolis specifically, the high, frequently precipitous, and flat-topped plateau is especially superlative. Accordingly, we clearly see the natural topography of the hill itself
dictating the course of the wall. In order to take full advantage of an already considerably defensible site, however, the walls were thrown up on the edges enclosing the whole perimeter of the acropolis – even on the east and south sides facing the lower city. As discussed in the previous chapter, this was a strategy also employed by the architects of the circuit at Alipheira. While the main defensive advantages inherent in fortifying such a naturally suited acropolis are obvious and need not be belabored, the incorporation of more subtle, easily overlooked tactical elements are points that do deserve to be expanded upon.

As alluded to above, the topography of the acropolis is not uniformly steep on all sides. Indeed, even as the long west side is especially precipitous and the northeast slope is also considerably steep, there is a narrow corridor in the northwest part of the hill that is easily navigable. While the analysis of the Asean fortifications is limited by the poor condition of the remains, it is still clear that the architects observed precaution by taking active measures to strengthen this northwest corner of the acropolis circuit (see Fig. 7.5).\textsuperscript{1496} To compensate for the defensive weakness of the topography and to protect this route, two artillery towers (the West and North-West Towers) were constructed on either side of the approach, only 40 m apart.

Concern for this vulnerable area can be further recognized by the insertion of a postern here, just north of the West Tower. While creating an opening in the most vulnerable section of trace may at first glance seem ill-considered, as demonstrated in the composition of Arkadian fortifications, every element had a reasoned purpose and nothing was left to chance. Thus, while conceivably risky, a postern here would have

\textsuperscript{1496} Holmberg (1944:136).
actually been well within the protective range of fire provided by both the West and North-West Towers on its flanks. Furthermore, since the gently sloping terrain on the northeast makes it the most vulnerable section of the entire circuit to attack, placing a postern here would be well placed for a defensive sortie. Finally, placing it next to the West and not the North-West Tower ensured that any attempt by an enemy to breach it would require them to advance with their unshielded right side exposed to enfilading from the flank of the West Tower.

Although next to nothing remains of the walls of the lower city and much is speculative, some deductions can be made regarding the inherent defensive strategy and tactical components envisioned in its conception. Obviously important in this regard is the proposed reconstruction of the trace. As mentioned above, the Forséns maintain that the preliminary work of the geophysical survey suggests that “the lower circuit wall may have had a total length of ca. 1 km, enclosing an area of about 11 ha.”1497 This statement – and the (approximate) reconstruction of the lower city wall published in 2003 (see Fig. 7.6) – was made despite the fact that the geophysical prospection was limited to only 13 ‘lines’, all in the vicinity of the northern and southern spurs.1498 Thus, it is important to remember that while the course of the northern and southern parts of the lower city wall are attested by the resistivity survey, the reconstructed trace south and to the west of the Megalopoli-Tripoli highway (i.e., the eastern wall) is conjectural. Finally, although it seems unlikely that the eastern lower city wall neatly and conveniently followed the

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1497 Forsén et al. (2005:307). See above, n. 43.
1498 Dogan and Papamarinopoulos (2003:fig. 2); Forsén et al. (2005:318, fig. 4).
course of a ravine and the railway track – as the reconstruction would have us believe – what is important is that a lower city wall existed and extended into the plain.

Construction of this lower circuit into the plain was a logical decision ultimately governed by the topography of the acropolis. That is, since the eastern slope of the acropolis is the most moderate, it was crucial to include it within the lower city walls, which, in turn compelled the lower city (and the city wall) to extend into the plain east and south of the acropolis. This arrangement had important defensive implications. Instead of retreating to the slopes below a separately fortified acropolis off the main roadway – like the settlements at Halous or Nestane, for example – the creation of a lower city circuit assertively extending into the plain produced a bottleneck and a means of controlling access into the valley from the east [Fig. 7.13]. While the large hill less...

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1499 Although the geophysical results demonstrate the wall might follow the ravine (at least for an interval), the subsurface remains that were identified could also be the remains of a retaining wall or a wall from the intramural settlement (Dogan and Papamarinopoulos 2003:247). At any rate it should be remembered that the Forsén repeatedly stress that their reconstruction is based only on “preliminary results, and further geophysical work is needed in order to establish the exact course of the lower city wall” (Forsén et al. 2005:311).
than 1 km to the east, the Alpheios/Eurotas River, and the lower city walls of Asea
together defined this bottleneck approach, the topography of the Asea valley itself
ensured that any traffic from the east would be funneled right through it. Thus, like the
lower city walls of Alea, this bottleneck would have decreased the options for an
offensive approach or deployment of troops, and at the same time ensuring that traffic
passing through the territory was constrained by being brought close to the city and in the
shadows of its artillery towers.\textsuperscript{1500}

That we can expect the lower city walls to have had more or less regularly spaced
towers distributed throughout can be inferred based on what we know of Arkadian
fortifications and of the Asean circuit. Of all those Arkadian poleis examined with a
fortification circuit completely or partly set out over flat terrain, the majority have been
found to have relatively evenly spaced towers.\textsuperscript{1501} Certainly, without the advantage
afforded by naturally defendable terrain, such towers were indispensable. Furthermore,
based on the analogy of the presence and even spacing of Towers I, II, and III, it is
reasonable to expect that a similar pattern was employed in the rest of the circuit.\textsuperscript{1502}

Still, the Forséns interpret the occurrence of these semicircular towers quite
differently. Regarding Towers I, II, and III, they inexplicably maintain that semicircular
“towers are unusual, and usually occur only in connection with gates.”\textsuperscript{1503} Based on this
flawed belief, they add that it is “quite possible that the three round towers in Asea have

\textsuperscript{1500} Protection of this route is important considering the armies that likely passed through the Asean valley
in the fourth and third centuries BCE (Forsén 2003:256-57). This is discussed in greater detail in the
subsequent section.
\textsuperscript{1501} E.g., Mantinea, Stymphalos, and Psophis.
\textsuperscript{1502} Traces of at least one more tower were discovered during the resistivity survey northeast of the
Northern Spur Tower near a well (Dogan and Papamarinopoulos 2003:247).
\textsuperscript{1503} Forsén et al. (2005:309).
framed one of the main gates, the important gate towards Megalopolis.” First, while semicircular towers were commonly built to protect gateways – as seen in the gates at Stymphalos, Mantineia, and Kleitor – that was certainly not their only or even primary purpose. Indeed, their use as independent artillery encampments in curtains is extremely well-attested and examples are frequent in Arkadia. Not to dwell on this point, but as demonstrated, examples of such are found at Pheneos, Phigaleia, Kleitor, Nestane, Theisoa (Lavda), Stymphalos, and Halous. Second, exactly how three towers (semicircular or otherwise), spaced 33 m apart – and therefore with 66 m separating the Towers I and III – can be interpreted together as somehow ‘framing’ a gate is incomprehensible. Still the existence of a western gate facing Megalopolis is likely and perhaps one of these towers was part of such a gate. We might equally envision a gate leading to Pallantion/Tegea having been located somewhere in the northeast part of the lower circuit.

7.1.4 Chronology

Two basic chronologies have been proposed for the construction of the walls of Asea. First proposed by Holmberg is the idea that both the acropolis and lower city walls were erected in the Hellenistic period, specifically in the third century BCE. Until the publication of the most recent work on the walls, Holmberg’s date was the only

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1504 Ibid.
1505 Interestingly, Holmberg (1944:141) actually mentions the semicircular tower at Halous in his analysis of the Asean fortifications.
1506 Like the gates at Kleitor and Phigaleia, which still flank the roads today, perhaps the Asean gates should be sought in the vicinity of the modern highway.
1507 These chronologies do not include any later modifications of the gate in the Byzantine period, for which see Holmberg (1944:138) and Forsén et al. (2005:312-313).
1508 Holmberg (1944:141-42).
one suggested and appears to have been accepted by most.\textsuperscript{1509} As a result of their detailed study, however, which revealed that the upper and lower circuits are not of the same construction, the Forséns now argue that while the lower circuit may indeed be a third century BCE creation, the walls of the acropolis are, in fact, probably fourth century BCE in origin.\textsuperscript{1510} This revised chronology is likely closer to the truth, as it accords best with the available historical and archeological evidence.

Holmberg’s chronological assessment is flawed in many regards, not least of all is its attempt to date both the acropolis and the spur walls based on the evidence provided by the latter and the adjacent round towers alone. For example, he believes that the walls of Alea represent the best parallel for “this type of fortification with a citadel wall and from it two spur walls encircling a lower city.”\textsuperscript{1511} Following Meyer’s proposed chronology of Alea as an equivalent, therefore, Holmberg would see the Asean circuit as Hellenistic also. Even though Meyer’s date for Alea is likely too late – as argued in Chapter 4 – the layout of a circuit is not a very reliable chronological indicator since it was always dictated by the local topography.\textsuperscript{1512} Furthermore, Holmberg’s belief that round towers were a late feature in the science of Greek fortifications and not common until Hellenistic period is unmistakably false.\textsuperscript{1513} Finally, he argues that the pseudo-isodomic masonry characteristic of the southern spur wall also “points to the beginning of Hellenistic time.”\textsuperscript{1514} The point is largely academic, however, since one look at this

\textsuperscript{1509} Lawrence (1979:463), for example, maintains that the city (and presumably its walls) were “founded after 300 [BCE].”
\textsuperscript{1510} Forsén et al. (2005:311-12).
\textsuperscript{1511} Holmberg (1944:141).
\textsuperscript{1512} If it was reliable, then Alipheira, not Alea, would represent the best parallel and we might be inclined to date the Asean circuit to the early fifth century!
\textsuperscript{1513} Holmberg (1944:141).
\textsuperscript{1514} Ibid., (1944:142).
masonry reveals a polygonal style roughly laid in isodomic courses, with no evidence of pseudo-isodomic coursing (see Fig. 7.7).

As so little remains of the acropolis circuit, so too is there very little evidence on which to construct a reliable chronology. Still, certainly the uncoursed polygonal masonry employing (on average) considerably smaller blocks sets the acropolis walls apart from the lower city circuit. Based on analogy with other Arkadian sites, it could also be argued that such features suggest a fourth century BCE date. The polygonal masonry, for example, could easily be of the fourth century BCE. It could also be argued that a comparison could be made based on the presence of a ramp gate at Asea. Otherwise rare in Arkadia, such a gate does find a parallel in the system at Stymphalos, which has been dated to the early fourth century BCE. Finally, if the acropolis walls did post-date the widespread use of artillery, as supposed by Holmberg, we might expect to see the distribution of more and larger towers, especially in the vulnerable northern part of the trace.

Admittedly, based on the limited nature of the remains, none of these reasons is enough on which to base a solid chronology. Even together, they do not necessarily form the basis of an infallible argument. Still, when the archaeological record is accompanied by evidence supplied by the historical record, the assignment of an early fourth century BCE date for the acropolis circuit becomes plausible. Xenophon records that in 370 BCE, as the Spartan army prepared to march on Eutaia, located just on the southeast edge of the Asean plain, the Arkadian army gathered at Asea. As the Arkadians would have naturally chosen a gathering point they felt was safe and secure, it stands to reason that

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1515 Scranton (1941:69).
1516 Xen. Hell. 6.5.11-12.
(at least) the acropolis walls were in place at that time. The Forséns also maintain that the acropolis circuit dates to the Classical period, but note that the poor condition restricts a more precise date. Finally, while cautiously noting the possibility of different phases, they do admit that “Pikoulas has in his doctoral dissertation suggested an early fourth century date for the acropolis walls, and we see no reason to disagree with him.” On the other hand, the evidence suggests that the lower city circuit was a later addition, but perhaps not as late as that which has been proposed.

While Holmberg suggested a third century BCE date for the lower city walls, the Forséns are more precise, suggesting they belong to “the second or third quarter of the third century, with a terminus ante quem ca. 220 B.C.” Indeed, although they claim to base this date on stylistic grounds, it appears to be based first and foremost on historical considerations. In other words, instead of looking for historical events which may explain the appearance of the archaeological evidence, it seems that here the archaeological evidence is made to fit a known historical event – the so-called Kleomenic War of 229/28-222 BCE. In this regard, their brief summary of the archaeological evidence is worth citing in full; they write that:

The rustic polygonal technique points towards the 3rd century B.C. However, the walls of Asea clearly ante-date the polygonal technique without any kind of such horizontal arrangements that developed around 220 B.C. Another important chronological feature of the lower city wall is the existence of an inner room in the ground floor of the square tower. Inner rooms like this were used for placing catapults at the foot of the wall and are not common until the advanced Hellenistic period. Although no clear date can be given for the first time when such inner rooms appeared, we probably have to get down to the 3rd century before they become common.

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1518 Forsén et al. (2005:311-12).
1519 Ibid. (2005:312); emphasis mine.
Under this broad chronological umbrella based on ‘stylistic grounds’ (i.e. 275-220 BCE), the Forséns specifically argue that the walls were constructed in the 220s BCE on historical grounds and this brief discussion of the chronological evidence is followed by a lengthy discussion on how the wall was built in haste, its necessity triggered by the start of the Kleomenic War. Yet, the stylistic evidence provided by the masonry and tower chambers they mention does not neatly fit this chronological scenario. Based on his extensive survey of masonry types, Scranton, for example, found that coursed polygonal masonry was a largely Peloponnesian phenomenon that appeared during the second half of the fourth century BCE and beginning of the third century BCE. Furthermore, as noted by Winter, while the use of ground-storey tower chambers was restricted in the fourth century BCE, they do appear after the time of Epaminondas. The coursed polygonal walls and ground-storey tower chambers, therefore, while stylistically fall into the broad half century suggested by the Forséns (i.e. 275 – 220 BCE), they could arguably also be products of the later fourth century BCE – and certainly prior to the start of the Kleomenic War.

Nonetheless, the Forséns’ grasp of “historical probability” to postulate a chronology based on the factors that may have prompted the construction of the lower city walls is admirable. Unfortunately, there are a number of historical events besides (and prior to) the Kleomenic War which might have instigated the fortification of the lower city. As mentioned above, the geographic location of Asea and its political

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1520 Ibid.
1521 Scranton (1941:69, 140).
1522 Winter (1971a:162, 176).
association with Megalopolis made certain that the fourth and early third century BCE witnessed the considerable armies of Sparta and later, of the Successors, passing through their territory. Indeed, the catalyst could conceivably have been Antipater’s march to Megalopolis against the army of Agis III in 331 BCE; or when Polperchon traveled from Pallantion to attack Megalopolis in 318 BCE; perhaps Kassander’s march through en route to Messene in 315 BCE; or Pyrrhos’ invasion of Lakonia via Megalopolis in 272 BCE. Possibly it was Asea joining the Achaian League in 235 BCE that prompted the construction of a lower city wall. Regrettably, historical probability suggests that any one of these events could have threatened Asean security and prompted the construction of a lower circuit.

The Forséns, however, argue that the evidence suggesting that the wall was built in haste points to the fact that it was built quickly as protection against the Spartans at some stage during the Kleomenic War. The physical evidence is comprised solely of a statue found incorporated into one of the round towers and an unconfirmed report that an inscription was also built into part of the wall. In their belief that “apparently any stones found were used in building the wall, which gives the impression that it was constructed in haste during a period of war,” the Forséns miss the most obvious point. Although the use of available material to build a wall in haste is not unknown, if the Aseans wanted to build a wall as quickly as possible, they would not have constructed it using polygonal blocks. As Winter reminds us, this technique was not only expensive but

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1524 The year Megalopolis became a member and perhaps also when Asea joined the league (Forsén et al. 2005:312).
1525 Ibid. (2005:311-12). Parallel to the situation at Theisoa (Lavda), perhaps after the general breakdown of the Arkadian League, the displaced Aseans returned home from Megalopolis and incorporated otherwise neglected material into their new wall.
1526 Ibid. (2005:312).
1527 The Themistoklean Wall near the Kerameikos in Athens is perhaps the most obvious example.
more importantly, time consuming.\textsuperscript{1528} If haste was a prime motivator, surely they would have employed ashlar and/or trapezoidal blocks – both cheaper and faster options available at the time.

To summarize, therefore, the acropolis circuit is likely the product of the early fourth century BCE and must have been in place by the time the Arkadian army assembled there (ca. 400-370 BCE). The lower city wall, on the other hand, exhibits stylistic features (e.g., coursed polygonal masonry, ground-story tower chambers, use of stretchers forming compartments in the curtain) that range from the later fourth century through the third century BCE. Whether built to deter Spartan aggression during the Kleomenic War is one of several third century BCE options based on historical probability and is impossible to confirm. Certainly this event must represent the latest possible date for their construction as the Forséns suggest.\textsuperscript{1529} Determining the \textit{terminus post quem}, however, is more difficult with the evidence at hand. In short then, however broad and unsatisfactory, the safest and most inclusive date for the construction of the lower city wall is ca. 300-220 BCE.

7.2 Ancient Gortys

Very little is known of the history of ancient Gortys, and what is established, as is so often the case, comes largely from the testimony of Pausanias.\textsuperscript{1530} Pausanias, for example, not only tells us that Gortys was a Kynourian community, but is the only source that explicitly classifies Gortys as a \textit{polis}.\textsuperscript{1531} Still, while he tells us that the settlement

\begin{itemize}
\item \textsuperscript{1528} Winter (1971a:90).
\item \textsuperscript{1529} Forsén \textit{et al.} (2005:312).
\item \textsuperscript{1530} The site of Gortys is also occasionally referred to as Kortys.
\item \textsuperscript{1531} Paus. 8.27.4, 8.28.1.
\end{itemize}
was once a *polis*, he does not provide any clues as to how far back in the past the history of Gortys as a settlement or as a *polis* extends. Adding support to the notion that Gortys was a *polis* and providing this chronological evidence is the discovery of the external and individual use of the city-ethnic from an inscription dating to the late sixth century BCE. An inscription from Delphi provides a further example, this time of the external and collective use of the city-ethnic. Dated to the first half of the fifth century BCE, this inscription records the dedication of spoils by the city of Gortys after a military victory. Finally, as Pausanias records that Gortys was one of the *polets* voted to participate in the synoikism of Megalopolis, we may assume it retained its *polis* status at least into the first quarter of the fourth century BCE.

The earliest indirect mention of Gortys comes from Homer, who writes of the “well-walled city of Gortyna.” Although he is referring to the settlement on the island of Crete, if Plato and Pausanias are to be believed, then this city was founded by colonists sent from the eponymous Arkadian Gortys. The implications being that if true, then the Arkadian settlement of Gortys must have existed in some form as early as the eighth century BCE. While a stone axe was discovered on the acropolis which may be Neolithic, there is yet little evidence – archaeological or otherwise – to suggest sustained early or continuous occupation. The first attested historical event is, as mentioned, a military campaign carried out by Gortys some time during the first half of

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1532 *IG* I² 488. See Nielsen (1996a:122) for commentary.
1533 *Syll.* 3 49.
1534 “Κορτύνιοι δεκάταν πολέμιον” (ibid).
1535 Paus. 8.27.4. Like many of these cities chosen to participate in the synoikism, it is uncertain whether the decision was implemented.
1537 Plat. *Laws* 4.708a; Paus. 8.53.4.
1538 Courbin (1952:247); Howell (1971:100).
the fifth century BCE. Although who they fought as well as the larger repercussions of this engagement remain unknown, it is possible that it was conducted under the auspices of the Peloponnesian League, of which Gortys was likely a member. Membership in the Arkadian League may also be assumed since Gortys is listed among those Arkadian cities selected to join in the synoikism of Megalopolis. After the early fourth century BCE, however, little is known about the history of this small city. As Polybius tells us, the city was captured in 219 BCE by an Elian general during the First Social War between the Aitolian and Achaian Leagues, we may safely assume Gortys to have been a member of the latter at that time. By 194 BCE, Gortys was certainly a member and issued Achaian League coinage in its name. Finally, by the time of Pausanias, some 500 years after the synoikism, Gortys, like Asea, was no longer a polis, but a “κώμη” of Megalopolis.

While Pausanias was the first to record his visit to the site, he was certainly not the last. Indeed, neither the ruggedness of the area, roving bandits, or the relative isolation of the site, could prevent a number of eager travelers from visiting Gortys during the course of the 19th century. As noted by Martin, owing to Pausanias’ precise topographical description, “le site avait été aussitôt identifié — sans erreur — avec celui de Gortys d’Arcadie.”

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1540 Polyb. 4.60. Interestingly, Polybius also adds that at the time Gortys was a city of Thelphousa.
1541 Head (1963:418).
1542 Paus. 8.27.7.
1543 Gell (1817:105); Dodwell (1819:2.381-82); Leake (1830:2.23-25); Boblaye (1836:161); Curtius (1851:1.349-352); Rangabé (1857:74-76, pl. VI, 2); Bursian (1862:2.233).
the remains of a temple, all of them – with varying degrees of accuracy – described parts of the fortification circuit. Leake and Rangabé also included plans of the circuit to accompany their description, although both are fundamentally flawed. Similarly, although parts of the 19th century accounts are not always in agreement and are often hard to reconcile with the remains on the ground, they still represent important contributions to the study of the Gortys’ fortifications and laid the foundation for the research of those scholars who followed in the late 19th and the 20th century.

The first work devoted solely to ancient fortifications in which the walls of Gortys are included is in de Rochas d’Aiglun’s *Principes de la fortification antique.* Like his description of Alea, however, the account of Gortys was also taken word for word from the earlier account published by Rangabé. While Rangabé’s report is sufficient, it is Frazer’s accurate, well-researched, and detailed account of the circuit that arguably marks it as the first true scholarship on the subject. Bölte’s brief but comprehensive account of the fortifications published a few years later – obviously compiled from first-hand observation – stands in this same academic tradition. It would appear that owing to the limited historical references and the relative paucity of visible remains, by the early 20th century, scholars had all but exhausted what could be added to our knowledge of Gortys and its fortifications. To answer those remaining questions excavation would be required,

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1545 Reproducing a flawed plan of the Gortys’ circuit is a trend that continued well into the 20th century. Indeed, despite an accurate plan provided by Martin (1947-48:Pl. XIII) resulting from his detailed study of the walls, inexplicably, reproductions of his plan in the years that followed vary considerably. While most are correct in the overall shape and details, the scale and/or the cardinal orientation are often wrong. For example, the scale is not accurate in the plan by Lawrence (1979:354, Fig. 82); the scale and orientation are off in the plan reproduced by Mee and Spawforth (2001:281, Fig 116); and the orientation is also slightly askew in the otherwise accurate plan by Papahatzis (1994:296, Fig. 283).

1546 de Rochas d’Aiglun (1881:73-74).

1547 Frazer (1898:4.307-11). Frazer seems uncharacteristically distracted by the scenery around Gortys and devotes much of his account to the surroundings.
which the Ecole française d'Athenes decided to undertake at the site, beginning in the summer of 1941.

Targeted excavations were carried out at Gortys by the French School at Athens between 1941-42, 1950-52, and 1954-55. One of the aims of the initial excavation season of 1941 was the exploration of the late fifth/early fourth century BCE sanctuary of Asklepios located south of the acropolis.\textsuperscript{1548} Focus soon shifted, and the excavations of 1942, as well as those of the 1950s, concentrated on the area northeast of the circuit. Here, a number of interesting features were discovered, including a second Asklepios sanctuary (late fifth/early fourth century BCE),\textsuperscript{1549} a bath complex (Hellenistic),\textsuperscript{1550} stoa (early fourth century BCE),\textsuperscript{1551} and residential area.\textsuperscript{1552} While this later research concentrated on the areas north and south of the circuit, it was the fortifications themselves that were among the first remains to be partially excavated and studied (between 1941-42). Although a preliminary report appeared almost immediately,\textsuperscript{1553} it was not until 1947-48 that the final report on the fortifications was published by Martin.\textsuperscript{1554} As one of the first of its kind, Martin’s clear and comprehensive study of the fortifications of Gortys is often cited as the exemplar for later studies of other circuits.\textsuperscript{1555} At Gortys specifically, Martin’s work has produced precise data about the circuit and its constituent parts which have been employed as important comparanda in other general

\textsuperscript{1548} Martin and Metzger (1940-41:280-86).
\textsuperscript{1549} Martin and Metzger (1942-43:334-39); Metzger (1951:130-33); Reekmans (1955:335-40); Ginouvès (1956:399-401); Jost (1985:204).
\textsuperscript{1550} Ginouvès (1955:331-34; 1959).
\textsuperscript{1551} Jost (1985:204).
\textsuperscript{1552} Reekmans (1955:335-40; 1956:401-06).
\textsuperscript{1553} For the preliminary results see Martin and Metzger (1940-41:275-80).
\textsuperscript{1554} Martin (1947-48).
\textsuperscript{1555} Winter (1971a:xvi).
fortification works. Unsurprisingly, Martin’s work also represents the primary source of information drawn upon below for the purposes of the present study.

7.2.1 Geography and Topography

The site of ancient Gortys lies high on the western bank of the Lousios (or Gortynios) River, approximately 1 km northeast of the modern village of Atsicholos [Fig. 7.14]. Gell colourfully describes its location “as strongly situated in a wretched rocky mountain upon a tremendous precipice.” Even more dramatically, Dodwell describes how the river and lofty precipices “throw a shade of wild horror over the adjacent scenery.”

Geographically, the site is centrally positioned, lying almost exactly in the midpoint between ancient Teuthis (ca. 10 km due north), Bouphagion (ca. 11 km to the

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1557 Gell (1817:105).
1558 Dodwell (1819:2.382).
east), and Brenthe (ca. 8 km to the south). Topographically, ancient Gortys also stands at the juncture of a number of prominent natural features. Its position at the southern terminus of the Lousios Gorge ensured command over the southern stretch of the river and access to central Arkadia from that direction. At the same time, its location at the eastern terminus of the only navigable valley linking the Lousios/Gortynios and Alpheios Rivers (and Elis beyond) guaranteed that Gortys controlled the eastern end of this important artery. Finally, as maintained by Martin, the location of Gortys also secured a key entrance to the northern part of the plain of Megalopolis.

While these strategic features were undoubtedly important factors in dictating the choice of site, in fact, the location chosen represents the only spot along the Lousios/Gortynios River – otherwise characterized by its steep and unforgiving topography – that is really amenable to habitation. As observed by Frazer over a century

![Fig. 7.15. Topographical map of Gortys area and course of fortifications](image)

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1559 Teuthis stands at modern Dhimitsana, Boughagion at Paleokastro (?), and Brenthe is believed by some to lie beneath modern Karatina (?). The incredibly winding modern road to Dhimitsana from Gortys makes the actual traveling distance closer to 20 km.

1560 Martin (1947-48: 82-83).
ago, “in spite of its height above the river, Gortys lies essentially in a basin shut in on all sides by mountains” [Fig. 7.15].\textsuperscript{1561} Indeed, to the west and southwest of the site stand the slopes of Mt. Pera Rachi; to the north, the basin is defined by the steep southern slope of Mt. Varvoudha; while the east side of the basin site is defined by the east bank of the Lousios/Gortynios River, the slopes of Mt. Klinitsa, and the western foothills of Mt. Menalo. These mountains not only defined the small basin in which Gortys was located, but must have also represented the natural borders of its territory.

The fortified acropolis of Gortys comprises a narrow hill oriented northwest-southeast, measuring approximately 425 m in length from the summit to the river and 160 m at its widest point near the top [Fig. 7.16].\textsuperscript{1562} From the summit, the intramural area does not slope consistently toward the river. Instead, the slope of the northwest and

\[\text{Fig. 7.16. Topographical map of Gortys area and course of fortifications}\]

\textsuperscript{1561} Frazer (1898:4.309).
\textsuperscript{1562} Martin (1947-48:85).
uppermost third of the site is broken by a number of descending plateaus which meet the slopes of a low and narrow hill occupying the centre third of the acropolis. The southeastern third of the intramural area slopes down from the central hill gradually toward the edge of the river valley where it ends abruptly, falling over 100 m to the river below [Fig. 7.17]. Beyond the circuit, the slopes of the acropolis are not uniform on all sides. Disregarding the sheer eastern precipice, the acropolis is steepest on its north and northeast sides. While the west and south slopes are neither as steep or as high as in the north, it has the advantage of exposed sections of rugged bedrock as additional protection. Finally, immediately south of the acropolis is a small plateau on which stand the remains of the so-called South Fort. While this area is separated from the acropolis by

Fig. 7.17. Gortys viewed from the east side above the southern end of the Lousios Gorge (facing SW)
a narrow depression to the northwest, the northeast and east sides of the plateau are
delineated by the precipice of the Lousios/Gortynios River. Its exposed south side is
comprised of a low, but relatively steep slope broken on its northwestern end by a very
narrow perpendicular gap.

Besides the ample water supply provided by the Lousios/Gortynios River, the
Gortys basin was served by a number of seasonal streams. Two of these streams – the
Vromonero (originating south of the site near Atsicholos) and the Platanorema
(originating near modern Markou to the north) – absorbed a number of smaller tributaries
before their confluence located northwest of the acropolis. From this point, the united
stream continues due east along the lowest part of the basin before reaching the
Lousios/Gortynios River. Northeast of this confluence stand the remains of the Sanctuary
of Asklepios, the bath, and some of the residential areas mentioned above. The relative
uniformity of the terrain and proximity to the acropolis suggest this area – and likely
extending south to the slopes of the acropolis itself – was the primary area of habitation
for the citizens of Gortys.\textsuperscript{1563} Although it contains arable land, little is cultivated in this
area today.\textsuperscript{1564} To the west of this archaeological zone, however, in the northwest corner
of the basin, the seasonal streams and flat terrain provide arable land for the crops that are
fastidiously cultivated today. As for the rest of the basin, the uneven and rugged terrain is
hardly suitable for farming. The north and northwest slopes of the acropolis are densely
covered by maquis and shrubs, appropriate for the grazing of sheep and goat; while south
of the acropolis, the topography is more forgiving and much of the area is given over to
the cultivation of olives.

\textsuperscript{1563} Reekmans (1955:335).
\textsuperscript{1564} Probably owing to restrictions imposed by the presence of an archaeological site.
7.2.2 The Fortifications

In his description of the remains, Frazer correctly observed that “the remains of the walls and towers are to be seen on the long southern and northern sides, and on the short western side. At the eastern end, on the edge of the glen there are no traces of walls.” Indeed, the picture of a long and narrow circuit, continuous on all sides but the east, and occupying the summit and slope of the hill, appears repeatedly in the 19th century sketches and descriptions of the site. In the very first season of archaeological exploration of the fortifications in 1941, however, Martin and Metzger immediately discovered a discrepancy between those accounts and the visible remains [Fig. 7.18]. While it is true that there did not appear to be defensive walls in the southeast along the precipitous edge of the river valley, the French team did discover that the southern part of

Fig. 7.18. Plan of Gortys from Martin (1947-48: pl.XIII)

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1565 Frazer (1898: 4.309).
the circuit was, in their opinion, an isolated installation and not an uninterrupted part of
the larger acropolis enceinte. This small trapezoidal enclosure is known as the South
Fort, not to be confused with the circuit of the acropolis proper and is discussed
separately below.

The fortifications of the acropolis can be divided into three sections, which, using
the terminology applied by Martin, include the north-northeast (NNE), northwest (NW),
and west-southwest (WSW) stretches [Fig. 7.19]. The NNE part of the circuit is the
poorest preserved in the system, prompting Martin to comment that, “cette face de
l’enceinte mérite de retenir l'attention moins par son état de conservation que par l'unité

Fig. 7.19. Plan of Gortys after Lawrence (1979:354, fig. 82)

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1566 Martin and Metzger (1940-41:276).
1567 I would like to thank the 39th Ephorate of Prehistoric and Classical Antiquities for granting me a study
permit to examine the remains of ancient Gortys. Because much of the circuit was concealed by
overgrowth, however, I was unable to make many useful measurements and had to rely instead on those
made and published by Martin (1947-48). Unless otherwise cited, all photographs are based on personal
observation from my visit to the site in the fall of 2009.
de son tracé et de sa conception.” 1568 Indeed, it is the only section of the system not
provided with towers, and we see here that architects chose to employ an indented trace
instead. Between Gate B and Postern 4, this ca. 300 m stretch of indented trace is
“articulées suivant une courbe harmonieusement adaptée aux lignes du terrain.” 1569 The
small, overlapping sections of curtain which define this trace are relatively uniform in
size, averaging between ca. 10.50 m and 12 m in length and 2 m to 2.50 m in
thickness. 1570 Following the long concave section is a more linear, yet still indented,
section of trace which continues to climb the slope between Postern 4 and Gate A. As the
slope above Postern 4 is milder than below, the four overlapping sections of curtain,
measuring 31.25 m, 10.50 m, 32 m, and 36 m respectively, are considerably longer
here. 1571

Like the NNE side of the acropolis, the NW and WSW parts of the circuit also
follow closely the topography of the hill. From Gate A, for example, the NW wall
continues in a southwest direction for ca. 100 m before curving south for 47.25 m in
order to fully encompass the summit of the hill. 1572 The curtain here is 3.60-3.80 m
thick. 1573 This stretch was also provided with three posterns (Posterns 1-3) as well as four
semicircular towers (Towers 1-4) on which the curtains were hinged. From Tower 4, the
WSW section begins its descent to Gate C and the bottom of the hill. Two concave parts
can clearly be distinguished in this section of the circuit anchored at the semicircular

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1569 Ibid.
1570 Ibid., (1947-48:98). The three overlapping sections at the bottom of the hill closest to Gate B are
narrower, measuring 1.90 m, 1.50 m, and 1.40 m thick (ibid).
1571 With a thickness of 2.75 m, the wall here is also thicker than below Postern 4 (ibid., 1947-48:97, 98).
1573 Martin and Metzger (1940-41:276).
Tower 5: the indented trace above it extending to Tower 4, and the curving section below it terminating at Gate C. The former is poorly preserved, having been looted for the nearby homes of medieval settlers, but appears to run for 180.05 m, and consists of six overlapping sections with dimensions similar to those in the NNE stretch between Postern 4 and Gate A.\textsuperscript{1574} Traces of the latter, although the poorest preserved part of the circuit, can be found leading from Tower 5 in a concave path to Gate C. This stretch measures 2.50-2.60 m in thickness and contains the only example of a rectangular tower in the entire acropolis circuit (Tower 6).\textsuperscript{1575}

As discussed in the subsequent section, Martin believes that the fortifications of Gortys were constructed by the Arkadian League to serve as a military outpost protecting the territory of Megalopolis.\textsuperscript{1576} The strategic and chronological implications of this possibility are discussed below. Nonetheless, whether Gortys was a fort or whether the defenses served the local population as the “ville acropole” type described by Jost, based on the definition employed in the present work, the fortifications are technologically of the acropolis type.\textsuperscript{1577} While all of the curtains’ stone blocks are of limestone, likely quarried from outcrops on the acropolis itself,\textsuperscript{1578} the type of masonry employed in the different parts of the circuit is not uniform. Moreover, the traditional system of classification breaks down at Gortys, as much of the walls do not fit neatly into the traditional classification system.

\textsuperscript{1574} From Tower 4 to Tower 5, these sections measure 32.70 m, 31.90 m, 26.50 m, 32.50 m, 33.45 m, and 23 m. Interestingly, while most of this section, measures 2.35-2.45 m thick, the curtain immediately north of Tower 5 has been strengthened to 3.80-3.85 m in thickness (Martin 1947-48:94).
\textsuperscript{1575} Martin and Metzger (1940-41:276).
\textsuperscript{1576} Martin (1947-48:139).
\textsuperscript{1578} Martin and Metzger (1940-41:279); Martin (1947-48:112).
The similarly arranged NW and WSW sections of the circuit, for example, are neither completely polygonal or trapezoidal, but are best described as predominately coursed (irregular) trapezoidal with occasional polygonal blocks [Fig. 7.20]. Martin observed these polygonal intrusions, noting that although the construction of the foundations show a "réel souci de respecter l'horizontalité, celle-ci est souvent brisée par des plans obliques et de nombreux décrochements." Furthermore, although the courses vary in height, they exhibit an arrangement closer to isodomic than pseudo-isodomic; any tendency toward the latter is probably coincidental rather than purposeful. While in general, the appearance of the curtains differs little from that of the towers, Martin notes that the blocks in the towers are often cut more carefully. The exterior surfaces of the blocks in both the NW and WSW sections also received similar quarry-faced treatment,

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1579 Martin and Metzger (1940-41:279). Martin (1947-48:120) describes this system as semi-trapezoidal or semi-polygonal, and as an intermediate style between pure quadrangular and pure polygonal. Scranton (1941:162, 165, 159, 184) notes four different styles of masonry in the walls of Gortys. Unfortunately, however, because he describes them only as "first of four," "second of four," etc., with the exception of the NNE indented trace, it is difficult to determine to which parts of the circuit he is referring.


1581 Ibid.
while the interiors were left roughly hewn.\textsuperscript{1582} The indented NNE section, on the other hand, was constructed in a different style completely. Immediately southeast of Gate A there is a marked change between the coursed trapezoidal of the NW section discussed above and what appears as dry rubble masonry of the NNE section [Fig. 7.21].\textsuperscript{1583} Martin and Metzger describe this change, observing that, “Les assises réglées cessent immédiatement après le corps Est de la porte A pour faire place à un appareil plus grossier où les blocs mal taillés sont entassés sans grand soin.”\textsuperscript{1584}

Regarding their construction, the curtains and towers at Gortys are everywhere built on bedrock. In certain parts of the WSW section, moreover, the outcrops of bedrock are so high that, like at Theisoa (Lavda), they comprise a large part of the foundations.\textsuperscript{1585}

Furthermore, the careful excavation of parts of the curtains by the French not only

\begin{flushright}
\textbf{Fig. 7.21. Transition southeast of Gate A between trapezoidal masonry of NW section and dry rubble masonry of indented NNE trace from Martin (1947-48:130, fig. 22)}
\end{flushright}

\textsuperscript{1582} Ibid.
\textsuperscript{1583} Scranton (1941:184, 186).
\textsuperscript{1584} Martin and Metzger (1940-41:279)
\textsuperscript{1585} Martin (1947-48:86, 94).
revealed that the curtains were divided internally into compartments, but also revealed an ingenious treatment of the core. Indeed, while the interior of the curtains was filled with the standard combination of earth and rubble packing, an additional and unexpected measure was taken. Specifically, a stack of small flat stones was raised against the rough interiors of each facing block to separate them from the rubble fill [Fig. 7.22]. The careful packing of these stones into the irregularities left by the unworked surfaces of the blocks created an additional face perpendicular to the force exerted by the fill and served to increase the internal cohesiveness and reduce outward pressure. As noted by Lawrence, however, although “a fair measure of security could be obtained by a labour-saving combination of stacking and loose fill, as at Gortys…its structural and economic

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1587 Lawrence (1979:217).
advantages would both diminish in keeping with the height.”

Related to the question of height, is, of course, the wall’s superstructure.

Although the maximum height of any surviving portion of curtain is only 3.75 m, Martin believes that the amount of displaced blocks scattered at the foot of the walls is sufficient “à prouver que les murailles de Gortys étaient construites entièrement en pierre.” Martin goes on to hypothesize about the original height of the wall by cleverly reconstructing a stairway which likely once led to the wall-walk (i.e., the internal height of the curtain). In short, based on cuttings indicating the width and height of the lowest steps and knowing the length of the base of the stairway, he determined that a wall-walk at a height of ca. 6.75 m would have been required to accommodate the calculated 25 steps. Employing a parapet block found near Gate B in his reconstruction, Martin determined that the external face of the wall (to the top of the parapet) would have measured 8.25 to 8.50 m in height. As ingenious – and even accurate – as this reconstruction may be, it tells us little about the superstructure and certainly does not prove that the curtains were entirely of stone as Martin suggests. On the contrary, when the presumed original height of 8.50 m is subtracted from the maximum height of the surviving curtain, we are left with a missing elevation of 5 m. Even allowing for the fact that some of those fallen blocks were taken from the site and reused in later constructions, the amount of fallen blocks would have had to have been considerable – and unquestionably more than actually exist.

1588 Ibid.
1592 Many of the curtain blocks are huge – arguably more effort than its worth to transport them.
Indeed, if the wall was entirely of stone, then well over half of it should be found strewn around the site along the base of the circuit which is not the case. Furthermore, as noted by Lawrence and cited above, the advantages of combining stacked stones and rubble fill in the internal composition would be drastically reduced in an all stone wall of the height reconstructed by Martin. Although the top of the curtains is not preserved to a uniform height or does not display a flat leveling surface in all places, by elimination, it is easier to conceive that the superstructure of the walls and towers were originally of mudbrick. Perhaps the western curtain between Gate B and the start of the indented trace provides the clearest evidence [Fig. 7.23]. Here, very few blocks (and in many places, none at all) have been displaced or found along the base of the wall. Also, the flat surface at the top of the wall not only suggests that it is preserved to its complete height (ca. 3.75

Fig. 7.23. Photo of western curtain adjoining Gate B (facing SW)
m), but that it once supported a mudbrick superstructure. In the end, therefore, it is likely that the walls of Gortys were comprised of mudbrick with stone foundations ca. 3.75 m high.

Although measuring almost 1 km in length, the circuit of Gortys was outfitted with only six towers, the foundations of which were constructed in the same manner as the curtains. Five of these towers are semicircular in shape (Towers 1-5), while there is but one example of a rectangular tower (Tower 6). \(^{1593}\) It is not surprising that four of the

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\(^{1593}\) Curvilinear shaped may be a more accurate designation for Towers 2, 3, and 5 as their projection from the curtain, while not round, do exceed a semicircle.
semicircular towers (Towers 1-4) are found in the NW section, where the acropolis is most easily accessible [Fig. 7.24]. While these towers are all similar in shape and size, with an average diameter of 7.50 m, they were not equally distributed.\textsuperscript{1594} For example, Tower 1 was placed halfway between Gate A and Postern 1 in the northern part of this section, while Towers 2-4 formed a group protecting the westernmost curve of the summit. These towers are relatively evenly spaced, with 24.75 m separating Tower 2 from 3, and 22.50 m between Towers 3 and 4.\textsuperscript{1595} Further defensive concern for this part of the NW section is exhibited by the strengthening of the curtains between the towers from the ca. 2.50 m thickness in the rest of the section, to 3.60-3.80 m.\textsuperscript{1596} The fortification’s final two towers are both found in the WSW section of the circuit [Fig. 7.25]. With a diameter of 9.85 m and projecting 6 m from the curtain, the semicircular

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig725_towers.png}
\caption{Plans of Towers 5 and 6 from Martin (1947-48: pl. XIV)}
\end{figure}

\textsuperscript{1594} Martin and Metzger (1940-41:276). For the detailed dimensions of the towers, see the chart and plans provided by Martin (1947-48:88, pl. XIV).
\textsuperscript{1595} Martin (1947-48:85-86).
\textsuperscript{1596} Martin and Metzger (1940-41:276).
Tower 5 is the largest in the circuit.\textsuperscript{1597} Approximately 175 m down the hill to the southeast is Tower 6. Rectangular in shape, it is 6.35 m wide and projects 3.30 m from the curtain.\textsuperscript{1598} Finally, it should be noted that none of the faces of any of these six towers were bonded to the wall behind nor is their evidence that any of these towers had ground floor chambers.\textsuperscript{1599}

With three large gates and four posterns, the circuit curiously contained more openings than towers.\textsuperscript{1600} Providing access to the summit from the north and marking the boundary between the NW and NNE sections of the circuit is Gate A [Fig. 7.26]. Comprised of a straight and narrow corridor interrupted only by two small piers for the door, “le plan de la porte est d'un type classique et simple.”\textsuperscript{1601} This corridor extends for 9.77 m, and widens slightly from 4.64 m to 4.90 m.\textsuperscript{1602} Gate B, located at the bottom of

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig726.png}
\caption{Fig. 7.26. Plans of Gates A, B, and C from Martin (1947-48: pl. XV)}
\end{figure}

\begin{flushleft}
\textsuperscript{1597} Martin (1947-48:88).
\textsuperscript{1598} Ibid., (1947-48:96).
\textsuperscript{1599} Martin and Metzger (1940-41:276); Martin (1947-48:87).
\textsuperscript{1600} The posterns are discussed in the subsequent section.
\textsuperscript{1601} Ibid., (1947-48:100).
\textsuperscript{1602} Ibid.
\end{flushleft}
the hill in the easternmost part of the circuit, is very similar in form to Gate A. It is comprised of a simple opening, 5.30 m long and 3.20-3.60 m wide, with similar piers as provisions for a door.\textsuperscript{1603} What impressed early and modern travelers alike and made Gate B the “la merveille de Gortys,”\textsuperscript{1604} was its form and approach [Fig. 7.27]. As the city’s main gate, measures were taken to ensure that it was sufficiently protected. Not only was it assembled using massive blocks on the exterior – referred to as cyclopean by many travelers\textsuperscript{1605} – but the core of the eastern half of the gate and adjoining curtain was of solid stone masonry, instead of the usual earth and rubble fill.\textsuperscript{1606} Yet it is the approach to the gate that was its most intimidating aspect. Essentially located at the end of a funnel, the gate and access to the acropolis could be carefully monitored and its approach regulated by (and from) each of the two narrowing flanks. Finally, occupying the

\hspace{1cm} Fig. 7.27. Gate B (facing S)

\textsuperscript{1603} Ibid., (1947-48:103).
\textsuperscript{1604} Martin and Metzger (1940-41:277).
\textsuperscript{1605} E.g., Rangabé (1857:75) and Frazer (1898:4.310).
\textsuperscript{1606} Martin (1947-48:121).
southernmost part of the acropolis circuit is Gate C. Although poorly preserved, its relatively intact western half confirms that it is a simple opening type, similar in both size and layout to Gate B.\footnote{Martin and Metzger (1940-41:278). The most interesting feature of this gate is the discovery of a small shrine and associated votive remains, which Martin (1947-48:109-112) believes were dedicated to Pan.}

It only remains to discuss the final defensive element at Gortys, the so-called South Fort. Located at the edge of the Lousios/Gortynios ravine on a small plateau just south of the acropolis ridge, this fort is aligned on the same northwest-southeast axis as the acropolis circuit. It is roughly trapezoidal in shape with walls 105 m in length along

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Fig.7.28.jpg}
\caption{Plans of the towers of the ‘South Fort’ from Martin (1947-48: pl. XVIII)}
\end{figure}
the northeast, 57 m on the northwest, and 131 m along the southwest side.\textsuperscript{1608} Although most of the remains along its southeast side have been reclaimed by the widening river valley below, Martin apparently found enough scattered remnants to trust in the existence of a ca. 70 m long wall.\textsuperscript{1609} The curtains of these walls are considerably thinner than those on the acropolis, measuring only 1.20-1.30 m.\textsuperscript{1610} Their construction is also different. Instead of the stack of small stones placed against the inside face of the blocks, the core is comprised solely of the typical earth and rubble fill. The differences between the South Fort and the acropolis fortifications do not stop there. Unlike the acropolis towers, for example, at least two of the South Fort examples are bound to the curtain behind. Moreover, two of the towers in the fort have ground storey chambers which communicate with the interior of the fortress. Finally, all of the South Fort towers are rectangular in shape.

The South Fort contained at least four towers, and possibly as many as six [Fig. 7.28]. Three of these towers (Towers 1-3), are located on the northwest side, where a stretch of wall is laid out in a manner that Winter describes “either as a piece of ‘sawtooth’ or as a rectangular version of the ‘semicircular’ trace.”\textsuperscript{1611} Anchoring this arrangement is Tower 1 and 3. Placed precisely on the north corner, and connected to the curtain by only the narrow chamber passage, Tower 1 actually presents four faces, instead of the usual three (6.80 m x 6.30 m x 4.25 m x 3.25 m).\textsuperscript{1612} Tower 3 projects from the wall in a similar way on the west corner (6.70 m x 6.90 m x 3.85 m x 5 m), although

\begin{footnotesize}
\begin{itemize}
  \item \textsuperscript{1608} Martin (1947-48:116).
  \item \textsuperscript{1609} Ibid.
  \item \textsuperscript{1610} Ibid., (1947-48:117).
  \item \textsuperscript{1611} Winter (1971a:119).
  \item \textsuperscript{1612} Martin (1947-48:118-19).
\end{itemize}
\end{footnotesize}
lacking a ground storey chamber, it is bonded directly to the curtain and its core.\textsuperscript{1613} Interestingly, the wall leading south from this tower was thickened to 3.20 m over a length of about 10 m – almost three times the average width of the curtains in the rest of the fort. Located 22 m and 20 m from Tower 1 and 3 respectively and completing the ‘sawtooth’ arrangement, is Tower 2.\textsuperscript{1614} More of a hollow bastion than a proper tower, this installation presents a 6.60 m long face and projects 2.50 m, forming sharp acute angles with the curtains behind on either side. Finally, ca. 50 m southeast of Tower 3 is Tower 4. This tower is 6.40 m wide and projects 2.40 m from the wall; the flanks of this tower, however, extend all the way through the width of the curtain.\textsuperscript{1615} Tower 4 also had a ground storey chamber which was accessible from the fort by a narrow door in its north corner. Finally, although the poorly preserved remains do not allow for accurate reconstructions, based on their similar position (and presumably function) in the fort, Martin would restore the adjacent Tower 5 to resemble Tower 4.

\subsection*{7.2.3 Strategy, Tactics, and Defensive Planning}

The choice of site for the \textit{polis}, acropolis, and the South Fort of Gortys was carefully and strategically selected. The location was well watered, possessed arable land, building material (i.e., quarries), considerable natural defenses, and, as mentioned, ensured command of the hub of where some of the major arteries linking southern, central, and western Arkadia came together. Surrounded by mountains on all sides, the basin in which Gortys stood was effectively provided with natural defenses on all sides. It had the additional protection on the east afforded by the 100 m high and precipitous west

\textsuperscript{1613} Ibid., (1947-48:117).
\textsuperscript{1614} Ibid., (1947-48:116).
\textsuperscript{1615} Ibid., (1947-48:119).
bank of the Lousios/Gortynios river. Still, within the otherwise surrounding mountainous
topography, Gortys possessed areas of low and relatively flat territory suitable for
habitation, construction, and cultivation. North of the acropolis, this low terrain ran all
the way to the river, and as such, Gortys occupied one of the few places south of Teuthis
where the Lousios/Gortynios River could be easily traversed.

While the choice to fortify the acropolis ridge was a strategic decision conceived
to complement the natural advantages of the area listed above, the course of the
fortifications themselves was ultimately dictated by the topography of ridge on which
they were built. In other words, its elongated shape and northwest-southeast axis conform
to the shape and contours of the hill. This is most obviously reflected in the NW section,
where the wall skirts the summit to enclose the highest part of the ridge, and in the WSW,
where the wall descends the edge of the hill, sticking close to its natural contours. In the
final NNE section, where the slope is steeper and the edge of the ridge is not strictly
defined, a potential course for the defensive wall is less obvious. Accordingly, we see
that military architects turned again to the topography and constructed a concave and
indented trace which both reflected and complemented the natural terrain. Besides a
practical approach to navigate the northeast slope, the indented trace also represents a
conscious tactical decision with the aim of enhancing the defensive strength of the system
as a whole. A closer examination of the composite parts of the fortifications, their form
and function, as well as their distribution, demonstrates the same objective of ensuring
that the acropolis defenses were as strong as possible.

The construction of four of the circuit’s six towers along the NW section strongly
suggests apprehension for the safety of this part of the acropolis. There were two main
reasons at the root of such concern. First, while this section occupied the summit of the ridge and was the highest point of the acropolis, the extramural terrain to the west was still elevated and flat enough to be a liability if held by an enemy\textsuperscript{1616} (see Fig. 7.15). Second, the easiest approach and access to the acropolis from the south would have required passing past this part of the circuit. In order to command access to the acropolis from the south and to minimize the threat imposed by the uncooperative terrain to the west, architects both increased the width of the curtain and erected a cluster of semicircular towers. The curtain between Postern 1 and Tower 2, for example, was strengthened to 3.60 m, while the wall between Towers 2 and 4 was increased to 3.90 m in width.\textsuperscript{1617}

Regarding the towers, we see that Tower 1 was well placed to both exploit the unshielded right side of anyone approaching Gate A and to protect the unshielded right side of any defenders who sallied forth from Postern 1. Its semicircular shape, moreover, eliminated blind spots and ensured a 180° view of the gate and the postern. Like Tower 1, it is both the semicircular shape and position of the adjacent Towers 2-4 which arguably provide their greatest tactical advantage. The fact that they were placed on the ‘hinges’ (i.e., where the curtain changed direction) combined with their shape provided a greater than 180° view; the projection of Tower 2 specifically, would have ensured a viewing angle closer to 270° – more than enough to safeguard both Posterns 2 and 3. The close spacing of these three towers also guaranteed that they could protect each other.\textsuperscript{1618}

\textsuperscript{1616} Martin (1947-48:88).
\textsuperscript{1617} Ibid., (1947-48:89).
\textsuperscript{1618} Ibid.
The semicircular Tower 5 further down the hill possessed similar tactical abilities, although its size meant it could likely have housed a greater number of artillery machines. Furthermore, like in the NW section, the stretch of curtain issuing north of this tower was strengthened to 3.80 m in width from the 2.50 m thickness characteristic of the rest of the section. Finally, Tower 6 – an otherwise fairly typical rectangular example of a First Generation artillery tower – was well sited to provide enfilading cover for Gate C, located just under 50 m away. Since arguably a semicircular tower would have been equally (if not more) effective here and being the only rectangular tower in the system, the choice behind its shape raises questions without obvious answers. Perhaps Frazer was correct in his observation that several other rectangular towers had existed along this WSW stretch, even if Martin and Metzger maintain that these “pseudo-tours ne sont que les ruines d'habitations tardives, sans doute médiévales, qui se sont appuyées au rempart en utilisant les blocs tombés.”

Further tactical considerations can be discerned in the frequency and distribution of the circuit’s posterns. As with the concentration of towers in the NW section, that three of the four posterns (Posterns 1-3) are also located here further demonstrates a concern for the defense of this part of the circuit. These posterns, placed only around 30 m apart, were ca. 1.15 m wide and, as suggested by cuttings in the surviving thresholds, would have once been secured by wooden doors. Moreover, these posterns were positioned where they could receive enfilading protection from flanking towers – Postern 1 is easily within range of Tower 1, while Tower 2 was close enough to protect defenders sallying forth

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1620 Frazer (1898:4.309).
1621 Martin and Metzger (1940-41:276).
from Posterns 2 or 3. That a further measure of protection was envisioned is suggested by what appears to be the remains of a staircase behind the curtain separating Posterns 1 and 2. From this staircase, defenders could quickly access the wall-walk directly above the posterns and provide further defense if required. Finally, the frequency of posterns in the NE section immediately suggests they had a military rather than civilian function. If, for example, these were conceived primarily for citizens passing to/from the countryside, then certainly one postern here would have sufficed. Postern 4, on the other hand, located above in the upper part of the NNE section may have served such a civilian function. Standing alone on this side of the circuit, this postern directly faces what is thought to have been the residential area of Gortys and would have been a convenient access point to the acropolis from the lower city.\textsuperscript{1623} Still, as any opening in the wall is a potential weak-spot, and this section of the circuit was not provided with towers, architects constructed a small bastion-like projection flanking the north side of the 1.10-1.20 m wide opening.\textsuperscript{1624}

As the NNE section did not contain any artillery towers, it appears that the form and course of the curtain itself was regarded as the primary defensive tactic. Certainly, the indented trace on this side is the architectural feature most often remarked about in connection to the fortifications of Gortys. Similar to Theisoa (Lavda), the topography of this part of the acropolis must have been a factor in its conception. Still, that an indented trace was also constructed between Towers 4 and 5 in the WSW section – in an area with more negotiable terrain – does not suggest, as maintained by Lawrence, that “the sole

\textsuperscript{1623} Reekmans (1955:335).
\textsuperscript{1624} Martin (1947-48:98).
motive [of this feature] was probably to enhance stability."\textsuperscript{1625} Instead, as towers could have been easily accommodated in the indented section in the WSW and at least in the stretch north of Postern 4 in the NNE, we must concede that the use of the indented trace, while perhaps somewhat dictated by the terrain, was a conscious decision introduced purely for purposes of enfilading. In the WSW section, like the NW defenses as a whole, the faces of these jogs look toward the northwest. In the NNE stretch, however, the faces of the jogs stand facing downhill toward the southeast and east. Because the depth of the jogs measure about 2.40 m, each face could have held a couple of archers or a light artillery machine,\textsuperscript{1626} which may not sound too formidable, but when multiplied by the number of closely spaced jogs, the enfilading capabilities possible in the NNE arrangement would have been considerable. Indeed, the concentration of defensive firepower would have likely surpassed that provided by towers spaced even 30 m apart. Even in the WSW section, where the jogs are much further spaced, the overlapping sections would have created a small platform on which machines and defenders could be placed. Finally, how are we to explain the obvious differences between the forms of the indented traces in the NNE and WSW? For reasons discussed below, Martin maintains that “c'est plutôt dans une différence d'époque et dans des raisons d'ordre historique que nous trouverons l'explication de ces divergences.”\textsuperscript{1627}

Although technically examples of the simple opening type, all three gates of the Gortys’ circuit display sophisticated tactical considerations. Set at the end of a narrowing funnel, Gate B is arguably the most obvious in this regard. At ca. 45 m at its widest, this

\textsuperscript{1625} Lawrence (1979:353).
\textsuperscript{1626} Ibid.
\textsuperscript{1627} Martin (1947-48:99).
funnel had two tactical purposes: first, provided with two solid flanks for defensive fire, its form would have forced an attacking foe through the imposed bottle-neck – reducing any strength in offensive numbers; second, and related to the first, simply put, Gate B was meant to be imposing to anyone approaching. Indeed, combined with the daunting funnel shaped approach, the fact that the gate employed massive (almost cyclopean) masonry, including the use of polygonal blocks to add to its ruggedness and perceived strength, demonstrates that Gate B was designed to send a strong message. Furthermore, the curtain forming the eastern half of the funnel was constructed with a solid stone core, and this indicates that this was not all bluster, and that the gate was as daunting and as strong as it was meant to appear.

Gates A and C are more closely related in form than either is to Gate B. Both are set at oblique angles, had projecting flanks on either side, and were protected by a nearby tower. As Lawrence maintains, “sometimes obliquity appears to have conferred a purely military advantage.”\textsuperscript{1628} The oblique gates suggest that toward both, the road must have approached obliquely from the defenders’ left.\textsuperscript{1629} Thus, not only would an enemy be forced to advance for some distance along the foot of the wall, but, when combined with the gates’ projecting flanks, defenders would have been able to attack from both sides of the gate simultaneously.\textsuperscript{1630} To add further protection, we see Tower 1 well positioned to cover the left side of Gate A and the unshielded right side of an approaching enemy. Gate C was also provided with a flanking tower, yet one is left to wonder at the effectiveness of Tower 6 to cover this entrance. The rectangular shape of this tower would have limited

\textsuperscript{1628} Lawrence (1979:307).
\textsuperscript{1629} Winter (1970a:212 n.13).
\textsuperscript{1630} Ibid.
enfilading in a direction parallel to the curtain which was blocked at Gate C by its protruding western flank. Furthermore, Tower 6 was not well positioned to protect the south or southeast, which the oblique angle of the gate suggests were the directions of the main approach. The relative ineffectiveness of Tower 6, therefore, hints that we might expect Gate C to have had another tower on its right side (similar to Gate A), in the area where no remains of the circuit survive today.

Although next to nothing has been discovered in the southeast between Gate B and Gate C, we may confidently assume that a wall once existed. The acropolis fortification system would of course have been useless if this area was left open. Martin discovered a block or two here and there and believed that a wall certainly linked these two gates,\footnote{Martin (1947-48:104).} and although its direct course could not be traced, like the rest of the circuit, it must have been dictated by the terrain and likely proceeded all the way to the edge of the Lousios/Gortynios River valley. Fortunately, there are clues in the area which may permit a more precise reconstruction of the original southeast part of the circuit. Because of its proximity to the acropolis, the small plateau on which the South Fort stands would have been a defensive liability and too valuable to have been left outside the original circuit. Furthermore, the South Fort is deemed by all authorities to be a later structure that was built quickly, cheaply, and likely by cannibalizing parts of the now missing southeast wall in question.\footnote{Ibid., (1947-48:129); Winter (1971a:147).} If we can accept that this plateau would have been included in the original circuit, and that the quickest and cheapest way to build a wall is to use or modify an existing wall, we might envision that the SW and NW walls of the South Fort more or less followed the course of the original circuit, and a now missing wall (reused in the
construction of the fort) would have existed between Gate C and the South Fort’s Tower 1 [Fig. 7.29]. Whether the southeast side along the edge of the Lousios/Gortynios River valley was fortified or not remains uncertain. In this reconstructed scenario, looking to build the South Fort as quickly and cheaply as possible, architects followed the course of the original circuit for its SW and NW sides, while the NE wall of the fort (if it existed at all)\(^{1633}\) was added to close the final side of the fort.

Regarding the defensive planning of the South Fort, the preservation of the remains limit the discussion to its NW and SW sides. The SW section, as mentioned, contains at least one, and perhaps two further rectangular towers. Otherwise typical and

\(^{1633}\) The evidence is extremely limited and the probability of its existence at all is addressed below.
unexceptional, Tower 4 is interesting because its flanks continue through the thickness of
the wall. The NW side contains two true rectangular towers at the corners and a tower-
like projection inset in between them. Interestingly, as the two corner towers (Towers 1
and 3) are attached to the curtain at the corner, they presented all four of their sides. Thus,
unlike the usual placement of rectangular towers, Towers 1 and 3 could have placed
machines on all four sides, ensuring a near 360° viewshed. Moreover, the ‘saw-tooth’
inset between them presented a concave angle into which fire from both towers could
reach simultaneously.

Additional defensive fire could be provided by the so-called Tower 2, easily the
most interesting architectural feature of the South Fort. With no back walls to support
chambers or firing platforms, enfilading from this pseudo-tower would have been limited
to the top of its curtain. Even if wooding scaffolding once supported such chambers, the
rectangular shape would have produced the usual blind-spots at its corners, making it
useless for protecting not only Towers 1 and 3, but the curtains linking them. Thus,
Tower 2 could only effectively protect the flanking curtains and towers from the top of its
curtains. Constructing what is essentially a fake tower is keeping with the fact that the
South Fort appears to have been constructed quickly and cheaply. What could be cheaper
or quicker, in fact, than building only the external edifice of a tower? While
compromising some of its defensive firing capabilities, such a fake tower would still
appear to an enemy as resembling a real tower while reaping the benefits of speed and
economy.

Based on the reconstruction outlined above, it is likely that the NW and SW walls
of the South Fort incorporated the foundations of the original acropolis circuit. In this
scenario, again in interests of speed and economy, with the exception of two small surviving sections, the vast majority of the fort’s curtains were erected at a considerably thinner width (ca. 1.25 m). Consequently, these walls represent “a good candidate for a system in which long stretches of wall were provided with wooden *ikria* and *parodos*, now completely vanished.” Indeed, as calculated by Winter, once the width of the screenwall/crenellations was removed from the thickness of the curtain, the wall-walk would have been reduced to only ca. 0.60 m. While noting that patrolling and even fighting could in theory be performed from such a narrow *parodos*, “it is not unreasonable to suppose that the width was increased by laying wooden planks on a wooden scaffolding, which has since disappeared.”

### 7.2.4 Chronology

Minor discrepancies aside, on the whole, there is a consensus among modern scholars that Martin’s proposed chronology for the fortifications of Gortys is essentially correct. In general, he maintains that the acropolis fortifications were constructed in the early fourth century BCE (ca. 370 BCE), that the indented trace on the NNE side was a Hellenistic repair, and that the South Fort was built after the acropolis circuit, sometime during the second half of the third century BCE. Winter, however, makes an important addition to the chronological discussion. Since an indented trace was employed in the

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1634 Immediately southwest of Tower 1 and southeast from Tower 3, the curtain is considerably thicker at 3.20 m and ca. 3 m respectively (Martin 1947-48:117). These thicker curtains may represent unaltered remnants of the original circuit incorporated into the South Fort.

1635 Winter (1971a:147).

1636 Ibid.

1637 Ibid.

1638 E.g. Bölte (1912b:1672); Winter (1971a: 103 n.8, 213 n. 15, 222; 1971b:414); Lawrence (1979:440); Adam (1982:179); Nielsen (2002:562). Scranton (1941:184, 186) appears to be alone in his belief that the indented trace on the NNE side is of the Archaic period.

1639 Martin (1947-48:120ff).
original early fourth century BCE circuit on the WSW side, he is likely correct in his belief that before the Hellenistic repair, the original course on the NNE side “followed substantially the same course as the later, which simply re-used the surviving parts of the earlier foundations.”\textsuperscript{1640} Winter’s argument here, as well as the rest of the archaeological and historical evidence, appears to be consistent with these three chronological phases.

Although conceivably inconclusive on their own, when taken together, the archaeological evidence establishes convincingly that the original circuit must have been laid out during the first third of the fourth century BCE. Briefly concerning the curtains, the coursed trapezoidal masonry of Gortys, as Scranton maintains, is a style that belongs to the last quarter of the fifth century to first quarter of the fourth century BCE.\textsuperscript{1641} Internally, we know that the use of headers running back through the walls forming compartments becomes “much more common”\textsuperscript{1642} from the fourth century BCE onward. The construction and form of the towers provide further evidence. For example, none of the towers on the acropolis of Gortys is bonded to the curtain. Although admitting the presence or lack of bonding between a tower and curtain is inconclusive on its own, Winter maintains that “by the second quarter of the fourth century, when mines, artillery, and rams were all in common use, the indivisibility of bonding towers and curtains together must have been quite evident.”\textsuperscript{1643} The apparent lack of ground floor chambers and their relatively small size further suggests the acropolis towers are First Generation types, conceived in the early fourth century BCE before the widespread defensive use of artillery.

\textsuperscript{1640} Winter (1971a:103 n.8).
\textsuperscript{1641} Scranton (1941:90, 98).
\textsuperscript{1642} Winter (1971a:135).
\textsuperscript{1643} Ibid., (1971a:167 n.51).
The gates and posterns too present evidence that is consistent with this chronological range. Although Martin is confident that the grouping of the acropolis posterns is “d’une tactique défensive mise au point dans les premières années du IVe siècle,”1644 Lawrence argues that “early posterns are never grouped close to a main gateway with the same outlook, as are the two of a late period…near Gate A at Gortys.”1645 While the frequency and concentration of posterns at Gortys suggest an ‘active’ defensive strategy characteristic of the later fourth century BCE and Hellenistic period, because the use of posterns becomes increasingly common throughout the fourth century BCE,1646 a precise date for these features is difficult to pin down. Perhaps one or two posterns were included in the original early fourth century BCE circuit, and later, another one or two were deemed necessary and installed. In either case, an early fourth century BCE date cannot be dismissed for the acropolis posterns. The gates are also instructive, since the simple opening and single door type (Type I), such as Gates A, B, and C at Gortys, appear to have been the standard for form until at least the middle of the fourth century BCE, when advances in siege warfare necessitated the use of the double gate.1647

The second chronological period and second phase of construction are represented by the indented trace on the NNE side of the circuit, which, as mentioned, appears to be a Hellenistic repair. Martin and Winter both agree that this indented trace at Gortys is likely a third century BCE repair to the original early fourth century BCE circuit.1648 They

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1645 Lawrence (1979:454).
differ, however, as to the form of the wall that preceded the repair. Martin maintains that the indented trace in general is largely a Hellenistic invention that should not predate ca. 350 BCE, implying that the earlier trace on the NNE side was not indented.\textsuperscript{1649} Winter, on the other hand, suggests the possibility that an earlier northeast wall followed substantially the same course as the later, which simply re-used the surviving parts of the earlier foundations.\textsuperscript{1650} This is certainly a plausible interpretation, since the original wall apparently employed another indented trace, along the northern end of the WSW section. Without excavation, perhaps at this point the question is purely academic. What is important is that the advanced form of the trace, the intrusive rubble masonry, and the improbability that the original fourth century BCE wall would have needed repairs so soon after its creation, all suggest that the current remains are a product of the Hellenistic period.\textsuperscript{1651}

The final period of construction at Gortys is demonstrated in the walls of the South Fort, which appears to be a product of the second half of the third century BCE.\textsuperscript{1652} Few would dispute the fact that there are marked differences between the fortifications of the acropolis and those of this fort, differences which immediately suggest a different date. Indeed, the presence of ground storey tower chambers, the projection of the corner towers, the use of a different tower shape, the different techniques employed in the construction of the curtains, and the obvious signs of speed and economy, all suggest that the South Fort post-dates the acropolis circuit.

\textsuperscript{1649} Martin (1947-48:137).
\textsuperscript{1650} Winter (1971a:103 n.8).
\textsuperscript{1651} Ibid., (1971b:414).
\textsuperscript{1652} Martin (1947-48:134).
How are these building phases to be interpreted in the larger historical and chronological context of southern Arkadia? The prevailing opinion is still that proposed by Martin over 60 years ago. Namely, that both the early fourth century BCE acropolis circuit and the later third century BCE South Fort both functioned as fortresses. The original acropolis, he believed, was built and garrisoned by Megalopolis and the Arkadian League as a stronghold to protect access to the plain of Megalopolis from the north. Indeed, he argues that, “l'enceinte gortynienne diffère à la fois de la simple acropole fortifiée et de l'enceinte de ville; elle est plutôt un camp dont le rôle est moins de protéger la cité que de défendre un passage et interdire l'accès de la plaine de Mégalopolis; elle est une pièce importante du système défensif de la capitale arcadienne.” Martin also points to the fourth century BCE Arkadian League coins discovered on the acropolis, arguing that such a large number of them can only be explained by the occupation of league soldiers. Of the later history of the acropolis, Martin maintains that the repair to the NNE indented trace can be attributed to the Macedonians, who, possibly under Demetrios Poliorkites, occupied the site as a garrison base in the early years of the third century BCE. While he makes it clear that he believes the acropolis was no longer functioning as a fort at the time the second southern fortress was constructed, the reasons behind its final decline and abandonment are not provided. Furthermore, Martin believed the remains of the later South Fort demonstrate that it had a similar function, but the reasons behind its inception and exactly who oversaw its construction are harder to narrow down. He offers several possibilities based

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on the increasing Aitolian presence in the area, including the notion that it was built by Me
galopolis in order to defend itself against Aitolians intruders, or the possibility that it was
built by the people of Gortys themselves to provide protection to their southern
sanctuary.\textsuperscript{1657} In any event, it appears the fort was conceived in Arkadia’s
turbulent time sometime during the second half of the third century BCE.

There are, however, several significant problems with Martin’s interpretation. Besides the
fact that the fortified acropolis of Gortys is not different in scale or scope from other
Arkadian examples, as Martin would have us believe, or the fact that there exists no
evidence it ever served as a base for one of Demetrios’ garrisons, the truth remains that
the location of the South Fort is most impractical. Unless its ultimate purpose was to
protect the adjacent sanctuary, would it not have been more practical (and economical) to
have incorporated the summit of the acropolis? Not only is this the strongest part of the
circuit which would have been (based on their present preservation) easily supplemented,
but, as mentioned, it is the summit of the acropolis that commanded the most accessible
north-south route through the Gortys basin. Even if one was travelling north along the
dge of the river, one could have easily circumvented the South Fort completely by
going around the southwest and west sides of the acropolis. Finally, the presence of
Arkadian League coins on the acropolis of a city which was a member of the
Arkadian League should only come as a surprise if, as Pausanias tells us, Gortys did
participate in the synoikism. Whether this decision was implemented, however, remains
far from certain. Indeed, the abundance of fourth century BCE remains discovered in the

\textsuperscript{1657} Ibid., (1947-48:146).
sanctuary and residential area north of the acropolis could be taken as evidence to the contrary: that some, or all, of the population of Gortys remained in their ancestral home.

Whether Gortys was a fort or fortified polis, it is still conceivable that the original fortifications were erected under the auspices of the Arkadian League, in order to protect the northern approach to Megalopolis as Martin suggests. Certainly, the northern access to the Lousios Gorge was commanded by the city of Teuthis, which like Thisoa (Karkalou), was apparently a dependant polis of Orchomenos.\textsuperscript{1658} Orchomenos’ refusal to join the Arkadian League must have put it at odds with other members of the league and may have inspired Megalopolis to ensure the safety of the northern approach from Orchomenos (via Theisoa and Teuthis) by fortifying Gortys.

Additional problems with Martin’s interpretation are based on the fact that at present, a precise chronology for the NNE repair and the South Fort is lacking. It is, therefore, not inconceivable that both of these Hellenistic repairs are more or less contemporary. Indeed, Martin saw the influences of Macedonian engineering in both the fort and the NNE trace, but did not go so far as to link the two. The notion that the South Fort may be contemporaneous with the NNE trace and the rest of the acropolis has important repercussions and forms the foundation for a new interpretation of the remains – one based ultimately on the idea that there never was a South Fort.

It is important to remember that the only evidence for the existence of the South Fort at all is the lack of a lower wall between Gates B and C of the acropolis, the slightest hint of a NE wall making it appear independent, and a different construction technique. The strength of this evidence, however, is questionable. For example, the quarry

\textsuperscript{1658} Paus. 8.27.4.
northwest of the fort has obscured the trace of any remains that might have existed between Gate C and the South Fort. Furthermore, the remains of the NE wall are so few that not only were they overlooked by every early traveller to the site, but may have actually been part of the original trace. Indeed, in the reconstruction of the original circuit outlined above (see Fig. 7.29), it is argued that the course of the original early fourth century BCE circuit actually embraced the area now occupied by the so-called South Fort and thus, the creation of the latter was actually a modification of the former. In this scenario, therefore, as was the case for the indented trace on the acropolis, the different construction technique here is interpreted as a later repair to the original circuit.

Martin admits that the original NNE indented trace needed repair, not owing to the wear of time, but because it was violently destroyed. If the walls of the South Fort are actually repairs (to the original circuit) which are contemporary with the repaired indented trace, is it possible that the same act of violence transpired in the southeastern part of the circuit as in the NNE part of the acropolis? Is there any historical evidence to compliment such an interpretation? Surprisingly, although such evidence exists, it is not associated with the remains in the published literature. In the early years of the Social War between the Aitolian League and the Achaean League, Elis, which had sided with the former, sent the generals Lykergus and Euripidas to wreak havoc amongst Achaian League cities in Arkadia. Polybius picks up the story, telling us that in 219 BCE, “Lykurgus seized the Athenaeum of Megalopolis, and Euripidas followed up his former successes by taking Gortys.” Here Polybius provides what is possibly the crucial link between the third century BCE repairs to the fortifications and the historical record.

1660 Polyb. 4.60.
Finally, it should also be added that Martin’s description of the masonry characteristic of these later repairs is very similar to the rubble masonry described by Loring as belonging to the rebuilding/repair of the walls at Megalopolis, which he (I think correctly) ascribes to 221 BCE.\textsuperscript{1661} In this scenario, it is easy to imagine architects from nearby Megalopolis being employed to help repair the damaged sections of the walls at Gortys in a style and technique with which they were of course familiar, having repaired their own walls only a few years earlier.

In summary, the evidence suggests that the original fortification circuit at Gortys was constructed in the early fourth century BCE, perhaps in the years around the synoikism of Megalopolis. Contrary to other interpretations, it is posited here that this original circuit enclosed the small plateau in the southeast occupied by the so-called South Fort, and that as an independent unit, this fort never actually existed. After Gortys was sacked in 219 BCE and the Elians withdrew, repairs were required in several parts of the circuit, and are observable specifically in the NNE indented trace and the southeast part of this circuit. The haste and interest in economy demonstrated in these sections, as well as their resemblance to the ca. 221 BCE walls of Megalopolis, accord well with this scenario. That is, as a member of the Achaian League still at war with the Aitolians, it would be crucial to rebuild their circuit as quickly and cheaply as possible. Thus along the NNE and in the southeast, architects more or less followed the original course. To further save time and money while giving an impression of strength when viewed from the outside, architects decreased the width of the curtain in the southeast section and added a fake tower. Yet as products of their time, these same architects incorporated the

\textsuperscript{1661} Cf. the descriptions by Martin and Metzger (1940-41:279) and Loring (1892:111).
contemporary technology, including, for example, a highly-developed form of the indented trace as well as ground floor tower chambers.

7.3 Ancient Megalopolis

Like most other Arkadian poleis, the preserved history of Megalopolis is disproportionate to the surviving archaeological evidence. Yet, unlike most other Arkadian sites in which the archaeological evidence often comprises the main body of evidence from which we may draw conclusions, at Megalopolis the case is reversed; and although the site is very well documented historically, we know comparatively little about its physical landscape. That being said, this situation has its advantages for the study of its fortifications. For example, the well documented history of the site and its known raison d'être not only remove any doubt about its political and social status as a polis, but also make the chronology of its foundation (and, of course, its walls) a relatively straightforward matter. We are additionally fortunate because Megalopolis can be counted among the small number of Arkadian poleis whose fortifications were systematically excavated, however limited.

The Spartan defeat at the Battle of Leuktra in 371 BCE not only saw an end to their centuries old hegemony in the Peloponnese, but this event also had far-reaching consequences for the cities of Arkadia. In an attempt to limit any future Spartan aggression, a confederation of Arkadian cities was established and Mantinea and Megalopolis were synoikized as defensive consolidations under the guidance of the Theban general Epaminondas. While we have seen that the people of Mantinea returned

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1662 If its name is not enough (‘Megale polis’), a summary of the evidence for polis status is provided by Nielsen (2002:572).
to the site from which they had been expelled by the Spartans in 385 BCE, the foundation of Megalopolis was a totally artificial foundation. The new *polis* of Megalopolis, founded sometime between 371-67 BCE,\(^{1663}\) had a long and turbulent history, beginning not long after its conception. Indeed, hardly had Epaminondas finished his work when dissensions among the Arkadians broke out, as it appears that the Theban association became distasteful to those who had originally promoted it. Xenophon tells us that Lykomedes of Mantinea – one of the founders of the Arkadian League – came forward as the representative of the Pan-Arkadian idea, reminding the others that if they quietly submitted to the hegemony of Thebes, they would find them to be Spartans but under another name.\(^{1664}\) Unable to reach a resolution, in 362 BCE, a large section of Arkadia, with Mantinea at its head, jealous of the rising power of Megalopolis and Tegea, deserted the Arkadian League and joined in treaty with Athens and Sparta.\(^{1665}\) This, the Battle of Mantinea, therefore witnessed Arkadians fighting on opposite sides, and although many of the synoikized towns took advantage of a clause in the peace that followed to desert Megalopolis, the Thebans compelled them to return.\(^{1666}\)

The death of Epaminondas in the Battle of Mantinea had deprived Megalopolis of its benefactor and protector at a time when Sparta was gradually recovering its strength. The necessity for a powerful ally was evident in 352 BCE, when the Spartans invaded Megalopolitan territory.\(^{1667}\) Because Thebes had been weakened by the Sacred Wars, and an attempt to ally themselves with Athens had failed, Megalopolis had few

\(^{1663}\) Pausanias (8.27.8) puts the date in 371/70 BCE, while Diodorus (15.72) puts it later, under the year 368/67 BCE. While the exact date of the foundation is uncertain, it is not critical for the present purposes. On this debate, see Hornblower (1990).
\(^{1665}\) Ibid. 7.4-5.
\(^{1666}\) Ibid.
\(^{1667}\) Paus. 8.27.10
options but to approach Phillip II of Macedon. Although no formal alliance was made, the connection with the Macedonian royal house was ever afterwards maintained. Thus, after the Battle of Chaironeia in 338 BCE, Megalopolis thus became the stronghold of Macedonian influence in the Peloponnese, and as Woodhouse maintains, “by a strange fate, the city founded to ensure the liberty of Greece became one of the instruments of its complete enslavement.”

When in 331 BCE, Agis III of Sparta rose against the Macedonian Antipater, Megalopolis was besieged and very nearly capitulated. Shortly after, it appears that Megalopolis sided with Kassander during the troubled times which followed Alexander’s death and the city was attacked (unsuccessfully) by his rival Polyperchon in 318 BCE. When Kassander refounded Thebes in 315 BCE (the city having been destroyed by Alexander), the citizens of Megalopolis sent aid, and were thus able to return to Thebes the service that had been rendered to them half a century earlier.

Megalopolis disappears from the historical record until the early third century BCE, at which time the city is in the hands of her first tyrant, Aristodemos. Pausanias tells us “during his tyranny the territory of Megalopolis was invaded by the Lakedaimonians under Akrotatos.” Plutarch finishes the story, writing that the Spartan King Akrotatos “was defeated and killed in the battle of Megalopolis, by the tyrant Aristodemos.” Some two generations later, Lydiadas became the second tyrant of

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1668 Woodhouse (1892:4).
1669 Pausanias (8.27.9) credits the North Wind with destroying the Spartan engines. The North Wind was duly honoured in consequence.
1670 Diod. 18.68.3, 18.69.3-18.72.1.
1671 Paus. 9.7.1
1672 Ibid., 8.27.11.
1673 Plut. Agis, 3.
Megalopolis, but soon relinquished his position by resigning voluntarily.1674 In 234 BCE, Lydiades brings Megalopolis into the Achaian League (of which it remained a member until 146 BCE) and was made strategos.1675 In 227 BCE Lydiades was killed and the Achaians were defeated by Kleomenes III in the Battle of Ladokeia staged just south of Megalopolis.1676 This defeat arguably paved the way for the fall of Megalopolis at the hands of their Spartan nemesis, which would come in 222 BCE. Pausanias records that it was at night during a truce that Kleomenes III finally seized Megalopolis.1677 While apparently most of the citizens escaped in safety to Messenia, those who remained were slaughtered, and the Spartans looted and destroyed the greater part of the city.1678 When the Achaians finally defeated Kleomenes at the Battle of Sellasia a year later, the Megalopolitan refugees returned home and began to rebuild their city.

Almost immediately, a dispute arose over the fortifications and the proposed size of the new city with one group pushing to restore it to the size of the original intramural area, while the other favoured a contracted and more easily defendable circuit. In the end, perhaps owing to arbitration by Aratos, the former opinion seems to have held the day and the city walls were rebuilt to their original scale.1679 Although these new walls were strong enough to repel the attack by the Spartan tyrant Nabis in 198 BCE, they seemed to quickly fall into decay.1680 Indeed, a quarter century later, in 175 BCE, Antiochus IV Epiphanes promised the citizens of Megalopolis that he would surround their city with a

1674 Paus. 8.27.12.
1675 Polyb. 2.44, Plut. Cleom 6.7; Arat. 30.4-7.
1676 Paus 8.27.16; Polyb. 2.51.3, 2.55.2; Plut. Cleom. 6.1-7.
1677 Paus. 8.27.15.
1678 Polyb. 2.55.1-9, 61.2-62.12, 5.93.2; Liv. 38.34.7; Plut. Cleom 23-25, 26.2, 29.3; Phil. 5.1-5; Paus. 4.29.7-8, 7.7.4, 8.27.15-16, 8.28.7, 8.49.4.
1679 Polyb. 5.93.
wall and delivered most of the money to defray the costs.\textsuperscript{1681} Under the Roman peace, the city’s political \textit{raison d’être} ceased to exist, and although inscriptions reveal building activity by Roman patrons, even by Strabo’s time the Great City had become a great desert.\textsuperscript{1682} A century later, things had changed little, prompting Pausanias to note that Megalopolis lay “mostly in ruins, shorn of all its beauty and ancient prosperity.”\textsuperscript{1683}

Although in the 19\textsuperscript{th} century, “the once busy agora [was] green with wheat, the meeting-place of the ten thousand a ploughed field,”\textsuperscript{1684} the rich and well documented history of Megalopolis – including the detailed description of the remains provided by Pausanias – must have played a central role in the city’s inclusion among the itineraries of many early travelers.\textsuperscript{1685} Unfortunately for the present purposes, however, very few of these travelers encountered remains of the ancient city’s fortifications. By the time of Frazer’s visit, the site had seen its first excavations, the reports from which his descriptions of the walls are largely derived.\textsuperscript{1686} Frazer’s work, as is so often the case, stands near the front of a long line of scholarship about the site, which continues to the present day. As one of the best-known examples of a Classical Greek synoikism, Megalopolis has received enthusiastic scholarly attention. Indeed, there is much literature concerning the history, politics, architecture of the Great City which will be drawn upon

\begin{footnotes}
\item[1681] Liv. 41.20.6
\item[1682] The oft-cited observation by an unknown Greek comic poet, reported secondhand by Strabo (8.8.1).
\item[1683] Paus. 8.33.1.
\item[1684] Woodhouse (1892:5).
\item[1685] Gell (1817:97); Dodwell (1819:2.370-78); Leake (1830:2.28-42); Boblaye (1836:167-68); Ross (1841:1.74-84); Curtius (1851:1.282-89); Rangabé (1857:95-103); Bursian (1862:2.244-50); Welcher (1865:263-64).
\item[1686] Frazer (1898: 4.317-352).
\end{footnotes}
below when required. Yet for the study of the fortifications specifically, only so much can be gleaned from analyzing and interpreting the ancient sources, and we must instead rely on the archaeological evidence.

Excavations at Megalopolis were conducted between 1890 and 1893 by the British School at Athens, under the direction of Loring, Richards, Woodhouse, Benson, and Gardner. Although the excavations focused primarily on the agora and the theatre/Thersilion, the visible parts of the fortifications were also mapped, and Loring selected twelve sections for excavation. Consequently, as noted by Frazer, Loring’s work “proved that the area of the city was much greater than had been believed by modern scholars and travellers, and that the name Megalopolis (‘great city’) was not misapplied.” The final report detailing the various excavations undertaken by the British was published in 1892. Finally, between 1991 and 2002 excavations in the agora were resumed by Lauter in an effort to resolve certain chronological uncertainties.

7.3.1 Geography and Topography

Frazer recorded his first impressions of the plain of Megalopolis more than a century ago, contentedly observing that it:

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1687 Although not intended as an exhaustive list, for the history/politics of the site, see Woodhouse (1892); Bury (1898); Moggi (1974); Hornblower (1990); Demand (1990:111-19); Roy (2005; 2007); on religion, see Jost (1985); Corso (2005); on architecture/archaeology, see Roy et al (1988); Lauter (2005); for general works, see Jost (1973); Nielsen (2002:572-76).

1688 Frazer (1898:4.318).

1689 In the same volume can be found the report on the fortifications by Loring (1892), on the theatre by Gardner and Loring (1892); on the agora by Richards (1892), and on the architecture by Schultz (1892). For the Thersilion, see Bensen (1892-93).

1690 For a preliminary summary of these campaigns, see Lauter (2005).
Is surrounded by mountains of fine and varied outlines, some of the slopes of which are clothed with wood, and the surface of the plain itself is diversified with copses and undulating downs and hillocks, refreshed by numerous streams shaded with plane-trees, and watered by the broad, though shallow, stream of the Alpheus winding through its midst. The scenery, in contrast to that of the eastern plain, is eminently bright, smiling, and cheerful. It is, perhaps, seen at its best on a fine morning in early summer after rain. The vegetation is then green, the air pellucid, the outlines of the environing mountains are sharp and clear, and their tints vary from deep purple to lilac.1691

These observations are worth quoting in full if for no other reason then to contrast with the present picture of the basin – one in which its former serenity is now dominated by the large lignite processing factory, the adjacent power plant, and the numerous tracks zigzagging across the plain connecting the two. The constant billowing of steam and smoke from these plants is visible for miles in every direction, and the extraction of the seemingly endless supply of lignite has ensured that the area west of the ancient site (and modern city) is perhaps irrevocably spoiled, resembling one enormous black scar.1692 Frazer would have a much different impression if he visited Megalopolis today.

The plain of Megalopolis comprises the interior of a considerable basin, not unlike the great eastern plain of Arkadia [Fig. 7.30].1693 Within the larger basin, the plain measures ca. 9 km north-south by 11 km east-west and is surrounded on all sides by mountains. Occupying nearly the whole of southern Arkadia, the basin of Megalopolis shared borders with both Messenia (separated by Mt. Lykaion) and Lakonia (by the Taygetos mountains) in the southwest and southeast respectively. The western limits of

1691 Frazer (1898:4.318).
1692 Because the exposed black lignite here resembles scorched earth, the area was believed by the Arkadians to be the location of the battle between the Gods and Giants (Paus. 8.29.2).
1693 Perhaps it was thought that such terrain could better accommodate a large population than could the hills characteristic of the majority of Arkadian settlements.
Mt. Menalo formed the natural boundary in the north and northwest, while, as mentioned, a long northwest running spur from Mt. Tsimbarou marked the eastern limit and beginning of the Asean plain. If the territory of Megalopolis was actually comprised of all the communities mentioned by Pausanias, then it would have measured 1500 km². Alternatively, if the reconstruction is based on Diodorus, then the territory of Megalopolis would have been considerably smaller.

The fertile Megalopolis plain was very well watered, being served primarily by the Alpheios and Helisson Rivers, but also by their numerous tributaries, as well as a number of seasonal streams [Fig. 7.31]. The Alpheios emerges from its subterranean course from the Asea valley, entering the Megalopolis basin southeast of the city near the modern village of Anemodouri (ancient Oresthasion). After a short southwesterly course, the Alpheios turns northwest and then north, moving along the western edge of

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1694 Paus. 8.27.3-4.
1696 Diod. 15.72.4.
1697 See above n. 32.
the basin. As a number of small tributaries add their water to the Alpheios, it continues its northward path, eventually exiting the basin at modern Karitaina. The Helisson, on the other hand, originating in the Helisson valley in central Arkadia, entered the Megalopolis basin on its east side. It then flowed almost due west, travelling directly through the city, before reaching its confluence with the Alpheios, ca. 3 km west of Megalopolis.

As noted by Loring, many of the early travelers made two important oversights concerning the topography of Megalopolis. First, they failed to fully appreciate the incredible size of the intramural area defined by the fortifications; second, their accounts give the impression that the city was constructed more or less in the centre of a level plain.1698 There is little excuse for the first error, as Polybius himself tells us that the walls of Megalopolis measure “fifty stades.”1699 Although one might initially be hesitant to imagine a city of such dimensions (its name notwithstanding), as Polybius is from

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1698 Loring (1892:107).
1699 Polyb. 9.21. 50 stades is equivalent to ca. 9.20 km.
Megalopolis, there is little reason to doubt his estimate of the size of his own city. Loring largely puts the blame for the second common misunderstanding directly at the feet of Leake.\textsuperscript{1700} Indeed, because of Leake’s authority, he is a source “to whom one naturally turns for information and suggestion.”\textsuperscript{1701} When he writes, therefore, that “the difference of level in every part of the site of Megalopolis is very slight,”\textsuperscript{1702} and compares it to the “level situation for [the Mantineians’] new city,”\textsuperscript{1703} the idea of a flat Megalopolis took root.

Such an idea has a direct bearing on the fortifications as it assumes, of course, that the city walls lacked any natural defenses, which in turn implies that the architects trusted completely in the man-made defenses alone to protect the city and its inhabitants. Consequently, Loring very quickly dispels this idea, clarifying that when contrasted with the mountains, the area “is naturally called a ‘plain’, [but] when looked at in detail [it] is really an accumulation of hills and valleys for the most part very well defined.”\textsuperscript{1704} The city itself, therefore, was not erected atop completely flat terrain, nor were the walls without natural defenses. Instead, oriented north-south and standing astride the Helisson River, the city and its walls occupied broken and uneven ground, which, wherever possible, the military architects employed to their defensive advantage.

7.3.2 The Fortifications

In spite of the fact that the city of Megalopolis was once surrounded by a circuit measuring some 9 km, so little of it has survived. What can be deduced concerning the

\textsuperscript{1700} Loring (1892:107).
\textsuperscript{1701} Ibid., (1892:106).
\textsuperscript{1702} Leake (1830:2.40).
\textsuperscript{1703} Ibid., (1830:2.41).
\textsuperscript{1704} Loring (1892:107).
course of the walls and architectural details, it should be noted, is based almost entirely on the work produced by Loring.\textsuperscript{1705} It was Loring, who, in the winter of 1891-92 was the first to trace the course of the fortifications. By combining the isolated fragments of walls visible on the surface and the twelve excavated portions, he was able to produce a plausible reconstruction of the circuit’s original course. Furthermore, as the site was not flat, his reconstruction was facilitated by both his knowledge of the local topography and his understanding that the trace of any city wall was not random “but depended on the nature of the ground.”\textsuperscript{1706}

The course of the wall is most clearly followed in the eastern section, north of the river [Fig. 7.32]. From both the excavated remains (F to K on Fig. 7.32) and the topography, it is apparent that this section descended the high ridge overlooking a small stream to the east, south toward the Helisson. This eastern ridge, noticeably steeper and narrower towards its southern end, is better described as the eastern edge of a plateau.\textsuperscript{1707} Because this plateau dominated the northern half of the city and is so “well defined, and so manifestly adapted for purposes of defence,”\textsuperscript{1708} Loring naturally looked to its northern edge for remains of the city wall, where he was rewarded by the discovery of two sections (M and L on Fig. 7.32). The northern slope which separates this plateau is incredibly steep, and in parts, falls as much as ca. 35 m.\textsuperscript{1709} At the northwest corner of this

\textsuperscript{1705} Although I have visited the site on a number of occasions, the actual walls of Megalopolis are the only fortifications in the entirety of the present work that I did not observe first-hand, having been told by archaeologists from the 39th Ephorate of Prehistoric and Classical Antiquities that nothing of the walls is visible on the surface today. I did not, therefore, apply for a study permit.

\textsuperscript{1706} Loring (1892:116).

\textsuperscript{1707} Ibid., (1892:112).

\textsuperscript{1708} Ibid.

\textsuperscript{1709} Ibid.
plateau – through which passes the modern road between Megalopolis and Karitaina – the circuit made a 90° turn and followed the plateau south, where, just before reaching the

![Fig. 7.32. Reconstruction of fortifications showing areas excavated by Loring (A-M)](image)

Helisson, the plateau ends and the wall fell steeply toward the river (between A and B on Fig. 7.32). Located on the high ground in the southwest corner of the city, only one section of the western wall was traced south of the river (C on Fig. 7.32). Finally, although in the effort to determine the southern trace of the circuit only two sections of wall were recovered (D and E on Fig. 7.32), combined with the most plausible course based on the topography, the entire wall south of the Helisson has been reconstructed.\textsuperscript{1710}

\textsuperscript{1710} Ibid., (1892:113). The possible provisions made for where the walls met the Helisson are discussed below.
Although the known traces of the wall marked on Fig. 7.32, may imply a simple exercise of connecting the dots to discover its original course, discerning the trace is a considerably more intuitive process. For example, such a large gap in the visible remains between M and A, as well as between C and D leaves a lot of room for conjecture. Of the former, Loring (I think) correctly excludes a straight line of wall connecting the two, noting that “it seems improbable that the designers of the fortification, having obtained so good a line of defence as the top of an almost precipitous slope, would abandon it for the sake of a comparatively small saving in the extent of the wall.”1711 Of the latter, he observes that his reconstruction ensured that “a marked fall of the ground towards the west as well as towards the north could be obtained.”1712 At the same time, when there is no evidence and the topography offers little assistance, such as the southeastern section between E and F, he does not hesitate to note that other, “considerable variations [of the course] might easily be suggested.”1713

The reconstructed course of the circuit immediately reveals several important points. It reinforces the notion that the site of Megalopolis is not flat, the course of the walls was largely dictated by the topography, and the natural defenses exploited by its course were considerable. Furthermore, measuring ca. 9 km in total length, the walls correspond almost exactly with Polybius’ estimate of 50 stades.1714 Polybius also adds that, although the walls of Sparta were longer by 2 stades, the intramural area there was

1711 Ibid.
1712 Ibid.
1713 Ibid.
1714 Loring (1892:114) gives the length as 44 stades (= 5.50 miles = 8.85 km). 50 stades, as mentioned, is equivalent to ca. 9.20 km.
much greater than at Megalopolis.\textsuperscript{1715} The long and narrow circuit reconstructed at
Megalopolis, therefore, also accords with the simple geometry implicit in Polybius’
statement. Finally, Polybius’ account introduces the obvious question: were the walls he
witnessed the same as the original circuit conceived with the synoikism? For reasons that
will be addressed in greater detail in the chronology section, it is likely that the circuit
observed by Polybius was a later circuit that followed the same course as the original one.
Indeed, there are at least two visible building phases perceptible in the excavated
remains. Of the 12 sections of wall excavated by Loring, he deemed seven to belong the
earlier phase (pieces A-G) and five to be from a later phase (pieces H-M).\textsuperscript{1716}

The parts of the fortifications excavated and assigned by Loring to the earlier
period consist solely of the curtains [Fig. 7.33]. Despite some discrepancies among these
seven sections, they share a number of common characteristics. For example, all of the
walls were constructed in a “rude”\textsuperscript{1717} polygonal style, though whether uncoursed or
coursed is not recorded.\textsuperscript{1718} These walls, like the later examples, consist of the usual

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figures/7.33}
\caption{Plans of the excavated sections of ‘early’ fortifications from Loring (1892:108, fig. 1)}
\end{figure}

\begin{footnotesize}
1715 Polyb. 9.21.
1716 Note that there is no section labeled ‘I’.
1717 Ibid., (1892:109).
1718 Ibid.
\end{footnotesize}
double facing of conglomerate and/or limestone blocks enclosing a core of rubble and packed earth.\textsuperscript{1719} While the interior of the blocks were left roughly hewn to facilitate cohesion with the core, of the external surface treatment, Loring only records that the blocks were “smooth.”\textsuperscript{1720} Furthermore, although not extant in all examples, it appears that the core was divided into compartments by perpendicular internal cross-walls placed at regular intervals of about 2 m.\textsuperscript{1721} Finally, the prohibitive costs and the lack of stone blocks at the site suggest all of these curtains once supported a superstructure of mudbrick.

For all their shared traits, there are also some marked discrepancies among these sections. The thickness of the walls, for example, appears to vary considerably. In the cases where both the internal and external faces are preserved, the thicknesses include 4.87 m (A), 2.0 m (B), and 3.54 m (F).\textsuperscript{1722} Even in those examples where only one face survives, we see a similar range, from 1.20 m (C), 0.80 m (D), and 0.80-0.90 m (G).\textsuperscript{1723} While Loring maintains that C, and possibly also D and G, actually stood alone without a second face,\textsuperscript{1724} even in an effort to save time and money in the construction of this vast circuit, this is questionable. Not only would the foundations of a single wall only 1.20 m thick not have the strength to support a superstructure of any considerable height, but when allowance is made for a parapet, the wall-walk would have been incredibly narrow. Like the later southeastern walls at Gortys (i.e., the ‘South Fort’), we might imagine

\textsuperscript{1719} Ibid., (1892:108). These building materials are seemingly used indiscriminately, although, as Loring (1892:111) notes, the mixture of materials may suggest later repairs.
\textsuperscript{1720} Ibid.
\textsuperscript{1721} Ibid., (1892:108, 109).
\textsuperscript{1722} Ibid., (1892:109-11).
\textsuperscript{1723} Ibid.
\textsuperscript{1724} Ibid., (1892:110-11).
Winter’s suggestion of wooden *ikria* to widen the *parodos*, but it is more plausible considering both the vast length of the circuit and examples A, B, and F, that these walls were but one of originally two faces. Still, as this is far from certain, the idea that the later walls were only ca. 1.20 m thick cannot be dismissed. A final inconsistency between these early sections is the presence of what appears to be a third wall in the intramural area adjacent to section A. While Loring does not hesitate to dismiss other intrusive pieces which do not fit his picture of the circuit as later, he maintains this third wall was part of the defenses, built because (for some reason) additional strength was required. In the end, however, despite the minor differences, these seven sections “are connected by a general resemblance in structure which contrasts them most strongly with the [other] five [sections].”

The five sections assigned to the later phase differ considerably than those described above [Fig. 7.34]. Most noticeable is the form of construction and masonry style. The earlier use of conglomerate and limestone blocks were replaced by unhewn

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1725 Winter (1971a:147).
1726 This wall is mislabeled on Loring’s plan (1892:108, Fig. 1) of section A. The wall marked δ should be read as α and vice versa.
1727 E.g., wall ζ in excavated section A and wall ν in section K.
1728 Loring (1892:109).
1729 Ibid., (1892:111).
stones of various sizes arranged in the dry rubble style of masonry.\textsuperscript{1730} While the larger of these fieldstones were reserved for the outer and inner faces of the wall, smaller stones were used to comprise the core, which was similarly divided into compartments.\textsuperscript{1731} Furthermore, these walls appear on average to be thicker than the earlier examples.\textsuperscript{1732} Nonetheless, these walls also likely once supported a mudbrick superstructure. Another feature, characteristic of these later sections, is the presence of towers and at least one postern. That is not to say, however, that the earlier circuit did not possess towers – only that none have been found. Indeed, as Loring maintains, “the total number and extent of the extant remains are so small that the absence of towers in the older portion of them is not surprising.”\textsuperscript{1733}

Excavations established the existence of at least four towers distributed in three of these five later sections [Fig. 7.35]. As Loring says very little about these towers, most of the information has to be taken from his plan.\textsuperscript{1734} Overlooking the river valley from the eastern edge of the plateau, section J comprised two semicircular towers and adjoining curtain. Based on the scale provided in the plan, these towers had a diameter of ca. 6 m, projected ca. 3 m from the curtain, and were spaced ca. 30 m apart. Above the steep slope on the northern edge of the plateau was the rectangular tower from section L. This tower appears to have been ca. 5 m wide and projected 3 m from the curtain. Finally, a little to the northeast of section L, section M is similarly located on the northern edge of the plateau. From the plan, it appears to have contained a rectangular tower measuring ca.

\begin{itemize}
  \item \textsuperscript{1730} Ibid.
  \item \textsuperscript{1731} Ibid.
  \item \textsuperscript{1732} Loring (ibid) only provides the thickness of the walls from section J, measuring ca. 3.35 m.
  \item \textsuperscript{1733} Ibid., (1892:112).
  \item \textsuperscript{1734} Both Loring’s silence and the simplicity of the plan, however, remove any possibility of determining whether the towers were bonded to the curtains or had ground story chambers.
\end{itemize}
7.62 m wide and projecting ca. 4 m. As demonstrated at several other Arkadian sites, this combination of semicircular and rectangular-shaped towers is not unusual. Finally, again without providing subsequent detail, Loring mentions the existence of an entrance in section K.\textsuperscript{1735} Its width of only about 1.5 m wide, as well as its location at the extreme northeast tip of the circuit, suggests this entrance was a postern.

7.3.3 **Strategy, Tactics, and Defensive Planning**

It is well known that the synoikism of dozens of Arkadian poleis into one Megapolis was largely a defensive policy, which, operating with Messene and Mantinea, was aimed at limiting future Spartan excursions northward. Implicit in this consolidation, of course, is the strategy of strength in numbers; if the synoikism was to survive and

\textsuperscript{1735} Loring (1892:111).
succeed, such numbers had to be both accommodated and protected. In this way, the strategy inherent in the foundation of the city and the conception of its fortifications is inseparable from the consolidation strategy as a whole. In other words, in order to function as a bulwark for the rest of Arkadia, Megalopolis had to be able to defend itself and its population. Although the paucity of remains and the largely conjectural course of the wall limit the amount of detail with which to explore the strategy, tactics, and defensive planning of the city, a general understanding is not beyond our reach.

It is clear that the misconception that Megalopolis was founded on flat terrain has in turn promoted the idea that the location was poorly conceived and, by association, its fortifications were in someway inferior. Roy, for example, maintains that “its location and wall-circuit were not ideal for defence,” and Winter, implies as much when he writes that Epaminondas did not “show great interest in the natural strength for the federal capital of Megalopolis.” On the contrary, as the city was founded in a location that cannot in any way said to be flat, we see the course of the fortifications dictated by the natural strength of the topography. This strategy of exploiting the terrain to a defensive advantage is most evident north of the Helisson, where the course enjoys the advantages afforded by the northern and eastern edges of the plateau. Moreover, this plateau north of the river had the additional protection provided by several of the Helisson’s small tributaries which surrounded it on every side. Even south of the river, we see that the southwest corner of the circuit also incorporated the high ground wherever possible. It is uncertain where the Helisson itself fits into the larger defensive

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1736 Roy (2007:294). Admittedly, there is still truth in this statement when its location is compared to other Arkadian settlements.
1737 Winter (1971a:33).
strategy, as the relationship between the river and the fortifications is not clear – not least of all because its original width is not known.\textsuperscript{1738} Clearly, whatever provisions were made, the architects did not fear a repeat of the disaster that befell the Mantineians at the hands of the Spartans in 385 BCE. Ultimately, as nothing in the defense of a city was left to chance, that the present site was chosen for location of the Great City is evidence in itself that it was perceived as defensible.\textsuperscript{1739}

The overall defensive strategy implicit in the choice of site was complemented tactically by the walls themselves and their constituent parts. While we know that the circuit utilized both rectangular and semicircular shaped towers strategically placed on the edge of the plateau, had at least one postern, and were comprised of mudbrick on a stone foundation, unfortunately, we know little else. Any analysis of the circuit’s tactics, therefore, is restricted to generalization and analogy. Still, by employing such appropriate Arkadian comparanda as the contemporary circuits at Mantineia and Stymphalos – with the former likely, and the later possibly, having been built under the direction of Epaminondas – we are well positioned to make plausible deductions. For example, the attested tower spacing of ca. 30 m between Megalopolis’s semicircular towers is consistent with those of Mantineia and Stymphalos, as is the use of both rectangular and semicircular shaped examples. We might imagine, therefore, a restored vision of the Megalopolis fortifications to include more or less regularly spaced towers of either shape, distributed throughout the circuit. Moreover, although no gates survive, we know from

\textsuperscript{1738} Loring (1892:113) correctly notes that, “had it been… even half or a quarter as wide, as it is now, it would (one would think) have been as prejudicial to any adequate defence [with] two great breaches in the wall…one on the eastern and one on the western side of the city.”

\textsuperscript{1739} Indeed, the size of the plain ensured that they were not without options. Just 3 km to the west, for example, they could have chosen to build their city at the confluence of the Helisson and Alpheios, where the water would have provided a natural defense on two sides in the seemingly typical Arkadian settlement pattern.
the routes described by Pausanias that it once had eight gates, some of which, like Mantineia and Stymphalos, must have been overlap types. Yet these two systems also contained monumental entranceways, which would certainly not have been out of place in the fortifications surrounding the Great City of Arkadia.

7.3.4 Chronology

Compared to the majority of cases encountered thus far, establishing a chronology for the walls of Megalopolis is a straightforward task that presents few difficulties. First, however, as it has a direct bearing on the chronology, we must return to the assumption presented above, that the later walls commented upon by Polybius followed the same course as the original circuit. Loring argues that this must be the case since “in no single instance have late remains been found in positions parallel, or nearly so, with the earlier ones; all the remains, of whatever date they may be, fall naturally, not into two lines, but into one.” Furthermore, Polybius himself hints that when the walls were rebuilt in ca. 221 BCE after having been destroyed by Kleomenes the year before, it was possible they were erected along the same lines as the original circuit. Although it could be argued that a smaller later circuit would be easier to man and defend, it is equally true that because of the inherent natural strength the topography provided to the reconstructed trace of the original circuit, its course would not be readily abandoned if possible. Finally, as noted by Roy, “it [is] unlikely that the choice of an extensive wall-circuit was an ill-considered mistake…[since] Megalopolis several times held out against direct

1741 Loring (1892:112).
1742 Polyb. 5.93.
attacks, including sieges, before it was destroyed by Kleomenes.” If the idea of a single course with at least two different chronological phases can be accepted, it only remains to assign dates to these periods.

Few would disagree that the first circuit was erected with the foundation of the city, sometime between 371 and 367 BCE. Walls of this first, and earliest date are represented by the excavated sections A-G. If Loring is correct, there is only one other clear building phase – represented by sections H-M. In truth, this later group could represent repairs to the wall at any time between ca. 370 BCE up to and including the repairs made with the money provided by Antiochus IV Epiphanes in 175 BCE. Nonetheless, the most likely historical event necessitating the rebuilding of the fortifications of Megalopolis is the sack of the city by Kleomenes in 222 BCE. It follows, therefore, that the walls were likely rebuilt upon the return of the Megalopolitan refugees in the wake of Kleomenes’ defeat at the Battle of Sellasia in 221 BCE. Even if Kleomenes failed to raze the fortifications completely – as attested by the survival of the earlier sections A-G – this second building phase must have been extensive. The similarities demonstrated between these five later sections, suggest that they were conceived as part of the same chronological phase.

1744 Loring (1892:115).
Chapter 8: The Fortified Poleis of Central Arkadia

This chapter surveys the fortified poleis located in central Arkadia on an individual basis, including the sites of ancient Teuthis, Theisoa (Karkalou), and Dipaia. After establishing that these settlements were indeed poleis, and reviewing all previous scholarship on the sites, the fortification circuit of each polis is explored through the local history, the geographical and topographical setting, the architectural components of the fortifications themselves, and finally, the strategy, tactics, and overall defensive planning inherent in their construction. Based on an understanding of all of these factors, including historical probability, a chronology of construction for each site in question is then provided.

8.1 Ancient Teuthis

Save for passing references by Pausanias, the ancient Arkadian city of Teuthis would be all but unknown to us and we would not have a name with which to attribute the meager remains scattered throughout the modern village of Dhimitsana. Indeed, the information from these brief references, both explicit and inferred, forms the justification behind Teuthis’ inclusion in this study – namely, its probable polis identity and the reasonable certainty of its identified location. Regarding the former, listing the settlements voted to participate in the synoikism of Megalopolis, Pausanias tells us that “of those belonging to Orchomenos [were] Theisoa, Methydrion, Teuthis.” Implicit in this passage is that before the foundation of Megalopolis, Orchomenos was at the head of an organization – described by the phrase συντελεῖν ἐς – which included Teuthis. Nielsen maintains that even if it remains unclear exactly how this organization

1745 “ἐκ δὲ τῶν συντελοῦντων ἐς Ὀρχομενὸν Ἐθεῖσσα Μεθύδριον Τεῦθις” (Paus. 8.27.4).
functioned, because the other communities in this group (Methydrion and Theisoa) “were probably poleis…by analogy, [we] may class Teuthis as a possible polis.” Finally, what is ‘possible’ becomes probable when we consider that Pausanias also refers to Teuthis as a polis. He writes, “of the other cities [πόλεων] I have mentioned, some are altogether deserted in our time, some [i.e., τῶν πόλεων] are held by the people of Megalopolis as villages, namely….Teuthis.”

Concerning the latter, a proper interpretation of Pausanias is again crucial for identifying the location of the ancient site. Although his statement that Teuthis stands “just across the border from Theisoa,” is seemingly unambiguous, it has been used to shape the arguments for two main candidates for the site’s location. The first contends that ancient Teuthis should be associated with the remains called Akova, near modern Ghalatas; the second, that Teuthis actually lies beneath the village of Dhimitsana [Fig. 8.1. Topographical map of central Arkadia]

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1746 Nielsen (2002:596). This is the main criterion for Teuthis’ inclusion in Nielsen’s inventory of Arkadian poleis.
1747 Paus. 8.27.7.
1748 Ibid., 8.28.4. He is referring to Theisoa at modern Karkalou, not to be confused with Theisoa at Lavda.
8.1]. While it appears that Gell was the first to subscribe to the belief that Akova was the site in question, he was not alone in this opinion. The idea that Teuthis stood at the site of Dhimitsana was also first proposed in the early 19th century, this time by Leake.

The Akova argument, seemingly solely a product of the 19th century, steadily lost ground to the case for Dhimitsana, which is recognized today by most as the location for Teuthis best fitting Pausanias’ description.

Briefly, in his account of the main sites along the Lousios/Gortynios River, Pausanias describes Teuthis after Gortys but before Theisoa (Karkalou); the order of this narrative suggests that Teuthis should lie between the two. Moreover, while it is not inconceivable that Akova could be described as “just across the border from Theisoa,” not only is Dhimitsana considerably closer to Theisoa – better fitting this description – but Akova is too far from Megalopolis for Pausanias to have included it in his description of the route north from it. In other words, if Teuthis really was at Akova, he would have likely included it in his description of Heraia or Thelpousa, as it is considerably closer to both of these. Finally, although the distance from Orchomenos to both Akova and Dhimitsana is equally considerable, the proximity of the latter to both Theisoa and Methydrion – the other poleis in the organization headed by Orchomenos – suggests a geographic (as well as political) relationship and that ancient Teuthis should be sought beneath modern Dhimitsana.

1749 Gell (1817:118-19); Ross (1841:114); Boblaye (1836:151-52); Curtius (1851:1.354); Smith (1873:1133).
1750 Leake (1830:2.63).
1751 E.g., Rangabé (1857:72); Bursian (1862:2.232); Hiller von Gaertringen and Lattermann (1911:37-40); Howell (1970:100); Jost (1985:212); Pikoulas (1986); Nielsen (2002:596-97). Not everyone is convinced, however, and both Frazer (1898:4.312) and Levi (1971:444 n.211), for example, remain undecided.
1752 Paus. 8.28.4.
In the end, whether it was thought to be the site of ancient Teuthis or just a picturesque Arkadian village, Dhimitsana has seen its share of travelers to the site over the centuries.\textsuperscript{1753} As most of the resulting accounts mention the traces of the fortifications they observed scattered amongst (and often incorporated into) the modest houses, it follows that parts of the circuit must have always been visible. In the early 20\textsuperscript{th} century, Hiller von Gaertringen and Lattermann produced the first study of the remains, including plans and the occasional measurement.\textsuperscript{1754} It was not until some three quarters of a century later, however, that their work was superceded and the first survey of the site was conducted. Carried out by Pikoulas in the mid 1980s, the survey included the collection of ceramics, the investigation of an ancient cemetery, and important here, the first attempt to map and measure all known pieces of the circuit.\textsuperscript{1755}

Still, besides being the birthplace of a general who had led a contingent of Arkadians at Troy,\textsuperscript{1756} and as alluded to, the fact that Teuthis belonged to an organization headed by Orchomenos and was voted to participate in the synoikism of Megalopolis, we know extremely little about the political history of this city. It is not even certain if the decision to join Megalopolis was ever implemented, since Pikoulas believes the site was never abandoned.\textsuperscript{1757} Because they were voted to participate, however, it may be assumed that Teuthis was a member of the Arkadian League – again, whether they joined immediately at the League’s conception, or whether they enrolled when Orchomenos too

\textsuperscript{1753} See ns. 1749-51 for list of these early travel writers.
\textsuperscript{1754} Hiller von Gaertringen and Lattermann (1911:37-40).
\textsuperscript{1755} Pikoulas (1986).
\textsuperscript{1756} Paus. 8.28.4.
\textsuperscript{1757} Nielsen (2002:579); Pikoulas (1986:120).
finally joined, is also uncertain.\textsuperscript{1758} Similarly, although we do not know when Teuthis became a member of the later Achaian League, the discovery of coins issued by the League bearing the city’s name, leaves little doubt that the city was a member at some point.\textsuperscript{1759} We know nothing of the site’s history in the centuries that followed, until it re-emerges in Pausanias’ account, which describes Teuthis, like Gortys, as a village of Megalopolis.\textsuperscript{1760}

\textbf{8.1.1 \ Geography and Topography}

The topography of central Arkadia is unquestionably the most unforgiving of the entire region. Dominated by the mountains and foothills of the Ghortiniaka, Menalo and Western Menalo ranges, central Arkadia is – almost without exception – set apart by the extremely severe terrain and general absence of plains, basins, or wide/flat valleys characteristic of all the other parts of Arkadia.\textsuperscript{1761} The location of the ancient city of Teuthis, of course is no different, and, occupying a small conical hill on the east bank of the Lousios/Gortynios River, the site is entrenched in and completely dominated by its rugged surroundings [Fig. 8.2]. Although, as Nielsen maintains, it remains unclear whether Teuthis was ultimately “conceived of as [being] situated within Orchomenian territory,”\textsuperscript{1762} it must have had its own \textit{chora}, with borders defined by the natural topography of the area [Fig. 8.3]. The Lousios Gorge, for example, must have served

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\textsuperscript{1758} Likely in the 360s BCE (Nielsen 2002:581).
\textsuperscript{1759} Head (1963:418).
\textsuperscript{1760} Paus. 8.27.7.
\textsuperscript{1761} The relatively wide and flat expanse of the Helisson River valley (northwest of modern Tripolis), is arguably the only exception.
\textsuperscript{1762} Nielsen (2002:579).
\end{flushleft}
such a purpose. With Teuthis located at its northern end and Gortys at its southern, even if the precise spot is indeterminate, the boundary must have been somewhere in this gorge. To the west, the Lousios/Gortynios River itself and/or the mountains opposite would have likely marked where the territories of Teuthis and Heraia met. Similarly, the Ghortiniaka mountain range northwest of the site separated the territory of Thelpousa.
from Teuthis’. Finally, in the northeast, the closest polis to Teuthis was Theisoa – the two separated by the plateau-like mountain flanking the east (and as it turns east, the south) side of the Lousios/Gortynios River.

Separated by a narrow saddle, the small conical hill comprising the site is actually the westernmost spur of this plateau-like mountain, itself the westernmost outcrop radiating from the bulk of Western Menalo [Fig. 8.4]. The river changes its northern course here slightly, sweeping “in a semicircle at the bottom of a deep gully round the western part of the town.” On the northeast side, the site is dominated by the hill of Profitis Ilias, from which it is separated by a small stream in a narrow ravine. Thus, with the river flanking the southwest, west, and northwest sides, and the stream and ravine to the northeast, the hill of Teuthis is actually a promontory jutting into the Lousios Gorge. While the slopes along the river’s west bank immediately north and south of the site are extremely precipitous, they are considerably less steep directly opposite to the west. Like Gortys, therefore, Teuthis stands across from a narrow east-west running ravine which

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1763 Frazer (1898:4:312).
comprises one of but a handful of places in the gorge where a river crossing is possible. Finally, as the river flows in a southern direction toward the Alpheios, naturally the site of Teuthis stands at a higher elevation than other sites to the south. Indeed, as observed by Curtius, to the south the hill offers “eine schöne Fernsicht…[und] man das enge Flussthal entlang über die Ebene von Megalopolis bis auf den hinter Leondari aufsteigenden Taygetos sehen kann” [Fig. 8.5].

The slopes of the hill itself, meeting at the summit 220 m above from the river, are fairly uniform on all sides except the west. While the north and south slopes are more regular, the west side presents a precipitous – near vertical – drop to the river below. On

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1764 It is not a coincidence that today the major road linking central and western Arkadia crosses the Lousios/Gortynios at this point.  
1765 Curtius (1851:1.352).
the southeast the hill slopes gradually to where it meets the saddle. At only ca. 200 m long and less than ca. 100 m wide, this saddle links the hill of Teuthis with a second, slightly higher peak to the southeast. Although today the houses of Dhimitsana spread from the main hill across the saddle and up the lower slopes of the second hill, for reasons discussed below, it appears that for the most part the ancient settlement was restricted to the main hill and the northwest end of the saddle.

8.1.2 The Fortifications

The fortifications of ancient Teuthis are poorly preserved, and today only nine isolated fragments of the original system can be discerned among the houses and churches of Dhigitsana. Owing to the careful mapping of the remains by Pikoulas, as well as their scattered distribution around the hill, however, a tentative and general reconstruction of the circuit’s original course is possible [Fig.8.6]. Determining the course on the east side of the hill is the most straightforward, as it possesses the majority of the surviving remains. From the northernmost point at section A, the wall must have traversed a narrow furrow on its trip south before meeting the rest of the eastern wall. The distribution of sections B1 to B4 suggests the wall continued south around the east side of the hill, while climbing ca. 20 m over a distance of ca. 150 m. Furthermore, the orientation of these eastern sections reveal that the course was not perfectly straight, but, as Pikoulas maintains, must have contained a number of small turns in order to cover elevations. From B4 to Γ2, the wall, while continuing to ascend, appears to change

1767 So few are the remains that I did not apply for a study permit for Teuthis. Unless otherwise cited, all photographs are based on personal observation from my visits to the site in the fall of 2009.
direction slightly, curving a little to the southwest. From Γ2 the circuit makes a 90° turn to the west to embrace the southern side of the hill. The wall on this side appears to have continued its ascent in almost a straight line to Δ and finally, to section E, which, located below the summit, at ca. 40 m higher than A, is the highest surviving point in the system.

How the north and west sides fit in this reconstruction is largely conjectural, but Pikoulas maintains that these sides were steep enough to make access impossible and therefore did not require fortifications. While he is correct that the west side is indeed especially precipitous and may have not been fortified, I cannot agree with his assessment regarding the north side. Not only is the north side only marginally steeper than the south side – which was provided with a wall, even though it had the additional protection of the

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<sup>1769</sup> Ibid., (1986:110).
river – but if Pikoulas is correct that there was a gate in the northeast, near section A, it suggests that the northeast corner of the hill was navigable. As the slopes of the northeast and north sides of the hill are very similar, it follows that the north too was accessible and therefore, must have been provided with a fortification wall. Ultimately, whether the north side was fortified or not, the fortifications of Teuthis are unquestionably of the acropolis-type. Unlike the fortified acropoleis of Nestane or Paos, for example, whose main function was a refuge in times of danger, it appears that, like Theisoa (Lavda), the main area of habitation at Teuthis occupied the intramural space, making it an example of a small mountain fortress town or “ville acropole.”

Among the surviving sections of the circuit, although two different styles of masonry were employed, one type predominates [Fig. 8.7]. In the minority with only one

![Fig. 8.7. Photographs showing styles of masonry. a) rubble/polygonal wall of section Delta from Pikoulas (1986:pl. 24/9); b) irregular trapezoidal of section B4 (facing S)](image)

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attested example is the dry rubble/polygonal masonry of section Δ. Pikoulas describes this wall as comprised of large, roughly worked stones that have been arranged without a specific plan, thus almost resembling a rubble wall. This is likely the same wall (or at least style) observed by Frazer, who notes the walls are “polygonal at the west end of the ridge. The blocks…are enormous.” The rest of the extant sections (A, B1-4, Γ1-2 and E) were constructed in an irregular trapezoidal style (verging on pseudo-isodomic coursing). The surfaces of the majority of sections in this style received quarry-faced treatment, while the surface of section E appears to have been brought to a flat surface, suggesting tool-faced treatment. Finally, the uniformly flat top course of section B4

Fig. 8.8. Plans of the identified sections of curtains from Pikoulas (1986)

1772 Pikoulas (1986:113). The chronological implications of these different styles are discussed below.
1773 Frazer (1898:4.312).
1774 Pikoulas (1986:113) describes them simply as trapezoidal, while Scranton (1941:169) classifies these walls as irregular trapezoidal verging on irregular ashlar. While the blocks do tend toward ashlar, they are clearly laid in more or less regular courses of differing heights (i.e., closer to pseudo-isodomic than irregular).
1775 See Pikoulas (1986:pl.23/7) for photograph of section E.
likely indicates not only that it survives to its original height but that it once supported a mudbrick superstructure. Of the nine surviving sections of the ancient circuit, seven are fragments of curtains (A, B1-B3, Γ2, Δ, and E), while the remaining two are the remnants of towers (B4 and Γ1). Briefly, the surviving lengths of many of the curtain sections are considerable [Fig. 8.8]. For example, section A survives for 9.30 m in length, B1 for 9.20 m, and B2 for 12.80 m. On the other hand, with lengths of only 6.97 m, 6.40 m, 1.40 m, and 5 m respectively, we see that curtains B3, Γ2, Δ, and E have not survived as well. Furthermore, the maximum surviving heights of these curtains range between 1.40 m (E) and 3 m (A). The maximum widths of the curtains vary likewise, ranging from 1.40 m (A) to 2.30 m (B2). While it is not inconceivable that the walls were actually this narrow (cf. the later walls in the southeast section of Gortys), it remains uncertain whether the surviving walls represent one of originally two faces or whether they stood alone.

Pikoulas maintains that of the remains in Dhimitsana, Tower B4 “είναι τό πιο γνωστό καί πολυφωτογραφημένο κομμάτι τού τείχους” – and not without reason [Fig. 8.9]. Picturesquely incorporated into the courtyard of a modern house, this tower is arguably the best preserved of all the extant fortification fragments. Still, although it seems to survive to its original height (3.30 m), only one external corner and two sides are preserved. Consequently, it is difficult to determine which side – the one facing the northeast (6.0 m long) or the one facing the southeast (6.50 m long) – was the front and

1776 Pikoulas’ (1986) sections B4, Δ, and E correspond to von Gaertringen and Lattermann’s (1911:38-40) sections B3, A, and B1 respectively. Although no remains of gates have survived, their possible locations inferred from the topography are discussed in the subsequent section.

1777 All measurements for curtains and towers are from Pikoulas (1986:105-10).

which was the flank. Complicating matters is the fact that a tower could have been
advantageously oriented here to face either the approach from the ravine on the northeast
side or the saddle to the southeast. Completely enclosing the small chapel of Ag.
Nikolaos, about 35 m southwest of Tower B4 is the other attested example, Tower Γ1.
With dimensions similar to Tower B, this tower measures 6 m by 6.40 m and is oriented
almost due east to overlook the saddle below.

8.1.3 Strategy, Tactics, and Defensive Planning

Occupying “a more or less isolated bluff or crag rising above a deep river-gorge,
with some gently shelving land within reach of the summit,” the remains at Dhimitsana,
as noted by Winter, represent a good example of the acropolis-type of fortified mountain
settlement. As always, strategic considerations were instrumental in the choice of site, and for Teuthis, Pikoulas suggests that the main factors responsible for attracting almost continuous occupation from at least the middle Bronze Age were its geographic position and the natural defensibility of the hill. Besides being situated at a strategic cross-road between central Arkadia and both western and southern Arkadia (a point which is expanded upon below), its geographic location provided the necessary provisions for economic self sustainability. Based on contemporary practices, it is clear that the fertile terraces and limited arable land can support cereals, vegetables, olives, and fruit trees (citrus, cherry, walnut, etc.), while the surrounding mountains and hillsides are more than suitable for pastoralism.

It was the defensibility of the hill, however, that was likely the most important factor behind the choice of site. Indeed, the topography of the hill and surrounding features provided considerable defensive advantages in almost every direction. The west side of the hill, for example, not only enjoyed the protection provided by its high and precipitous slopes, but also the added protection of the Lousios/Gortynios River below. Likewise, although the slope is more gradual, the northeast side of the hill also had the advantage of a ravine and water course. As demonstrated with several other Arkadian sites, the preference for a site that embraces the spur of a mountain and is protected by water on at least two sides was not uncommon.

Even though Teuthis possessed considerable natural defenses, the inhabitants did not put their trust in the heights and steep slopes provided by the hill alone; nor did they

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1780 Pikoulas (1986:100).
1781 Ibid.
trust completely to the impregnability of the walls. Instead, we see the compromise of a fortification circuit erected that both complements the natural defensibility of the hill and compensates for its inherent weaknesses. Unfortunately, as was the case with the walls of Megalopolis, the paucity of remains and the conjectural course of the circuit restrict what can be offered concerning the tactics and general defensive planning envisioned at Teuthis to generalization and analogy.

That being said, by combining the archaeological and historical data, with what can be plausibly inferred from such evidence, a general understanding is attainable. Without excluding the possibility of semicircular-shaped towers, the remains of B4 and Π1, for example, show that the circuit at least employed rectangular towers. Moreover, their near identical dimensions establish the possibility that the circuit may have once contained a number of similarly sized towers deployed throughout. The spacing and location of the towers are also informative. Indeed, separated by ca. 35 m, B4 and Π1 occupy the southeast part of the circuit overlooking the saddle. As the most practical point from which to launch a concentrated attack, the saddle is easily the most vulnerable part of the hill’s topography. If these two towers were placed 35 m apart at such an important part of the circuit, it is unlikely that it was thought necessary to space any of the other towers more closely in the less vulnerable parts. In other words, we may infer that ca. 35 m is the minimum distance that any of the towers were spaced, excluding provisions for gates.

In his survey of the site, Pikoulas discovered no traces of any of the city’s gates. Still, based on its geographical location, the identification of at least two ancient cemeteries, and the topography of the hill itself, it can be safely assumed that the circuit
possessed at least two gates, one in the northeast and one in the southeast [Fig. 8.10].

The existence of a gate in the northeast somewhere south of section A is suggested by

![Fig. 8.10. Topographical map of Teuthis showing reconstructed line of city walls (solid black line), ancient cemeteries (grey), and areas of ancient habitation (yellow) after Pikoulas (1986:101, map 1)]

both the presence of a cemetery and the accessibility of the terrain on this part of the hill. It is likely that the road from this gate would have more or less followed the same route of the modern roads from Dhimitsana north to Orchomenos and west toward Heraia.

The other gate almost certainly stood in the southeast corner of the circuit directly facing the saddle below. Not only was a second ancient cemetery located at the southeast end of the saddle, but any road from the south could only practically reach the walls via the saddle. This road would have likewise followed roughly the same course as a modern road, this time the road south toward Gortys and Megalopolis. Finally, as Pikoulas

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1783 Pikoulas (1986:113).
1784 The location of Towers B4 and/or Γ1 invites the possibility that they may have been part of this southeast gate (ibid).
discovered evidence of extramural activity/habitation on the northeastern end of the saddle, it follows that the fortifications must been accessible from that direction.\footnote{1785}

As discussed above, from Pausanias we know that sometime before the foundation of Megalopolis, Teuthis, Theisoa, and Methydrion were the minor \textit{poleis} comprising a political organization headed by Orchomenos.\footnote{1786} Unfortunately Pausanias tells us nothing of how this organization functioned, and as Nielsen maintains, we do not even know “whether any of these minor poleis were conceived of as situated within Orchomenian territory.”\footnote{1787} What is certain, however, is that together, these three closely spaced minor \textit{poleis} (and thus, Orchomenos) commanded the main route across central Arkadia, between the top of the Helisson valley and the Lousios Gorge (see Fig. 8.1).\footnote{1788} Indeed, similar to Epaminondas’ defensive arrangement of Messene, Megalopolis, and Mantineia, the locations of Teuthis, Theisoa, and Methydrion also form a southwest-northeast oriented barrier, but through the centre of central Arkadia. This was an important route for Orchomenos, one which ensured it access to western Arkadia, and more importantly, to southern Arkadia without having to pass through the territory of Mantineia. Whether Orchomenos’ control of this artery was primarily defensive or economic is uncertain. If the latter, it was well conceived, since any practical approach toward Orchomenos from northwest, west, or southwest Arkadia would have necessitated the use of at least some part of the road between Teuthis and Methydrion. Finally,

\footnote{1785}{This seems to have been the standard practice since the only gates in the circuits of Nestane, Paos, and Halous are all oriented to face the adjacent saddle.}
\footnote{1786}{Paus. 8.27.4.}
\footnote{1787}{Nielsen (2002:579).}
\footnote{1788}{From Teuthis it is only 8 km to Theisoa, only 12 km from there to Methydrion, and 24 km separates Methydrion from Orchomenos.}
Orchomenos’ larger interests aside, an alliance between Teuthis and nearby Theisoa and Methydrion was a defensive strategy beneficial for all involved.

8.1.4 Chronology

Attempting to establish a reliable chronology for a fortification system would ideally draw upon the form and style of the walls themselves, all the available archaeological evidence from the site, as well as its recorded history. Unfortunately, however, not only is Teuthis essentially invisible historically, but the archaeological evidence – ceramics found suggest continuous occupation of the site since the Middle Bronze Age – paints a chronological picture with a brush too broad to be of any practical consequence. With little support provided by the external evidence, therefore, we are left with no choice but to turn to the meager remains of the walls themselves to facilitate the chronological question. The character of these remains requires that, although not ideal, establishing a tentative date for the walls of Teuthis must rely almost exclusively on stylistic dating.

As identified above, the style of masonry employed in the vast majority of the extant curtains is irregular trapezoidal. The large, roughly worked stones employed in the one exception, section Δ, are better described as comprising a dry rubble or rough polygonal style arrangement. Based on these differing styles and historical probability, Pikoulas suggests two building phases. While its use in a Mycenaean fortification of the hill cannot be ruled out, the earliest wall, represented by section Δ, probably belongs to the late Archaic period. 1789 The remaining eight sections (A, B1-B4, Γ1,Γ2, and E) were constructed in the same period, which in his opinion, was undoubtedly the Hellenistic

period. Pikoulas admits, however, the difficulties in attempting to narrow down the precise date and offers several possibilities based on historical probability: perhaps the walls of Teuthis were built during the second half of the fourth century BCE by Megalopolis; or possibly during the second half of the third century BCE when Megalopolis joined the Achaian League and Arkadia became the theatre of continuous conflict; or finally, conceivably with the weakening of Megalopolis in the later third or early second century BCE, when many of its villages gained their ‘independence’ and joined the Achaian League. Like Hiller von Gaertringen and Lattermann before him, Pikoulas seems to find the last scenario most probable. Yet could the walls of Teuthis be earlier than the Hellenistic period?

A century and a half ago, Curtius observed that the masonry style “erinnert an die Zeit des Epaminondas.” Indeed, in his survey of different masonry styles employed in Greek fortifications throughout the Mediterranean, although Scranton discovered that the use of “irregular trapezoidal work covers a period too long to be of any practical significance,” it was a style employed from the early fifth century until the early fourth century BCE. The walls of Teuthis, however, are not that different from the early fourth century BCE walls of nearby Gortys, and the notion that they could be contemporary cannot be completely dismissed. What of historical probability? Can Pikoulas’ list of historical events/periods which may have triggered the construction of Teuthis’ walls be supplemented? Although admittedly speculative, two scenarios

1790 Ibid., (1986:114). Pikoulas (1986:112) maintains that the earlier section Δ was incorporated into the later circuit.
1792 Hiller von Gaertringen and Lattermann (1911:26); Pikoulas (1986:113).
1793 Curtius (1851:1.353).
1794 Scranton (1941:98).
immediately suggest themselves, both surrounding the synoikism of Megalopolis ca. 370 BCE. If around that time, for example, Teuthis did join the Arkadian League, thus leaving the συντελέστατα headed by Orchomenos (who refused to join the Arkadian League), it is not inconceivable that Megalopolis would have wanted to secure its northern border – as at Gortys – by fortifying the city of Teuthis. Alternatively, if the decision to participate in the synoikism was not implemented, and/or Teuthis remained in the συντελέστατα, then perhaps the decision to fortify the city was made by Orchomenos as a response to Megalopolis’ fortification of Gortys - located only a few kilometers away at the southern end of the Lousios Gorge – in order to preserve their control of central Arkadia.

Unfortunately, as demonstrated above, the evidence at our disposal does not permit a precise chronology for the erection of the walls at Teuthis. Pikoulas may be correct and the earlier section Α may, in fact, belong to the late Archaic period. Conceivably, it could also belong to the Classical period. Indeed, there is nothing in the extant remains that is exclusively and demonstrably fourth or third century BCE. In the end, therefore, no matter how unsatisfactory, it remains that based on the predominating masonry style and the guesswork of historical probability, the circuit could have been constructed any time between ca. 370 and ca. 200 BCE.

8.2 Ancient Theisoa (Karkalou)

The discovery of an in situ decree bearing the name ‘Θησόα’ has removed any doubt that the central Arkadian city of Theisoa – not to be confused with the other city of
the same name at Lavda – occupied a small hill above the modern village of Karkalou.\footnote{IG V.2 510-11. The other Theisoa, described by Pausanias (8.38.9) as north of Mt. Lykaion, is addressed in chapter 6.4ff.}

This identification was a 20th century accomplishment, and although the remains of the hill apparently eluded every 19th century traveler in the area, it was assumed by most of them that ancient Theisoa must lie somewhere near Karkalou.\footnote{Leake (1830:2.316); Boblaye (1836:151); Rangabé (1857:70). The exceptions are Ross (1841:115) and Curtius (1851:1.354), who thought the remains at Dhimitsana belonged not to Teuthis, but ancient Theisoa.} Pausanias provides the support for this belief, writing that Teuthis lies “just across the border from Theisoa,” and that the Gortynios River “has its source in Theisoa, which borders on Methydrion.”\footnote{Paus. 8.28.3-4.}

Because the city stood both in the vicinity of Methydrion and near the source of the Gortynios/Lousios River, the Expédition scientifique de Morée correctly determined that although its ruins were not yet visible, they “doivent se retrouver dans la plaine au-dessous de Rhado près du moulin et du képhalovrysi de Karkalou, à 6 kilomètres des ruines de Méthydrium.”\footnote{Boblaye (1836:151).}

The historical and epigraphic records establish that Theisoa was undoubtedly a \textit{polis}. Pausanias, for example, retroactively refers to the settlement of Theisoa as a \textit{polis} twice.\footnote{Paus. 8.27.4; 8.27.7.} Three inscriptions furnish further support for this notion. A late third/early second century BCE inscription found \textit{in situ} contains the city’s only surviving public decrees.\footnote{IG V.2 510-11.} It refers to Theisoa itself as a \textit{polis} in the political sense, it employs the city ethnic (i.e., internal collective use), it refers to a grant of \textit{proxenia} by the city, and a grant of citizenship.\footnote{See Nielsen (2002:599-600) for comprehensive summary of the evidence.} Furthermore, a fourth century BCE inscription discovered at Delphi, employing the external individual use of the city ethnic, attests to a grant of \textit{proxenia} to a...
As mentioned previously, as there is no way of determining to which Theisoa this inscription refers, the possibility that the Theisoan man could equally have come from one of the two settlements of that name, must be entertained. A final inscription, again from Delphi, adds support for a polis status by establishing that a Delphic theorodokos resided in Theisoa sometime in the late third century BCE.

Attempting to put together pieces of the city’s history is complicated by the fact that Theisoa is mentioned so infrequently in the surviving written sources, and what we do know, predictably, is provided almost exclusively by the account of Pausanias. Thus, we know that before the foundation of Megalopolis, Theisoa, like Teuthis and Methydron, was a member of the συντελέια headed by Orchomenos. Furthermore, whether the decision was implemented or not, Theisoa was voted to participate in the synoikism of Megalopolis. Nielsen is almost certainly correct in his belief that Theisoa’s membership in the Arkadian League can be inferred from this fact. While the inscriptions described above reveal that the city appeared to exist and continue to function as a polis at least until the late third century BCE, and Achaian League coins may suggest the city was a member by ca. 194 BCE, by the mid second century CE, Pausanias tells us that Theisoa was no longer a polis, but a dependant village of Megalopolis.

\[1802\] SEG xiv. 455. On this inscription, see Bousquet (1954:432-33).

\[1803\] Roy (1972b:78) maintains that it is “more likely that he belonged to the more northerly Thisoa [i.e., Theisoa at Karkalou].” On this argument, see chapter 6.4.

\[1804\] Plassart (1921:15, III.5).

\[1805\] Paus 8.27.4.

\[1806\] Ibid.


\[1808\] Head (1963:418) lists Theisoan coins among those minted by the Achaian League (194 BCE), but does not mention to which Theisoa, at Lavda or Karkalou, they refer.

\[1809\] Paus 8.27.7.
Although Pausanias provides crucial clues to the site’s identification as well the few valuable fragments of the city’s history, it does not appear that he actually visited the site. Instead, from his narrative, it appears that he traveled as far north as Teuthis (from Megalopolis) and as far west as Methydrion (from Mantinea),\(^{1810}\) thus never reaching Theisoa, which lies between the two. Perhaps for this reason, or perhaps owing to the total lack of visible remains, many of the familiar early travelers steered clear of the area around Karkalou. While several of these men weigh in on the question of the site’s location, it is unclear whether they actually visited the site.\(^{1811}\) Ross and Rangabé at least appear to have visited the area, though neither found (or at least recorded) any ancient remains.\(^{1812}\) Indeed, the first recorded observations of the ancient remains did not appear until the early 20\(^{th}\) century, when Hiller von Gaertringen and Lattermann published their preliminary observations on parts of the city’s fortifications.\(^{1813}\) Around the same time, Oikonomos carried out limited excavations on the hill – focusing largely on a temple – the results of which appeared in a very brief report.\(^{1814}\)

### 8.2.1 Geography and Topography

The site of ancient Theisoa occupies not only the middle of central Arkadia, but its location also corresponds roughly to the geographic centre of the entire Peloponnese. Furthermore, as mentioned above, the hill of Theisoa lies on the same road linking Teuthis to Methydrion, 8 km from the former and 11 km from the latter (see Fig. 8.1).

Like so much of the region, the site is dominated by the surrounding mountains.

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\(^{1810}\) Paus 8.28.4-6; 8.12.2-4.

\(^{1811}\) E.g. Leake (1830:2.316); Boblaye (1936:151); Curtius (1851:1.354).

\(^{1812}\) Ross (1841:115); Rangabé (1857:70-72).

\(^{1813}\) Hiller von Gaertringen and Lattermann (1911:37-38).

\(^{1814}\) Oikonomos (1910-11).
specifically the northern foothills of Western Menalo which surround the site to the south, east, and north, and the Ghortiniaka Mountains which envelope the area northwest, west, and southwest of the site. Separating the bulk of these two great mountain chains are two narrow valleys and a plain through which flows the Lousios/Gortynios River [Fig. 8.11]. Originating just north of the site – near modern Kaloneri, as its name and Pausanias suggest – the river flows due south through a narrow valley where it meets the small plain west of Theisoa hill. The river then adopts a southwest course, travelling down the western side of the plain, before exiting through a narrow valley as it makes its way to Teuthis, Gortys, and eventually, to its confluence with the Alpheios.

Unlike most poleis of central Arkadia, Theisoa commanded an area of relatively flat terrain. This plain, measuring ca. 3.5 km (north-south) by 2.5 km (east-west) comprised the majority of arable land and would have certainly been the most important

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1815 'Kaloneri’ translates from Greek as ‘good water’. Paus. 8.28.3.
part of the city’s larger territory. The western edge of the plain, where the narrow Lousios/Gortynios River valley begins its descent toward Teuthis, likely represented the western boundary of the city’s territory. The road east to Methydrion stood in the depression where the northwestern slopes of Mt. Madhara meets the southern slope of Mt. Korifes. We might imagine the eastern limits of Theisoa’s territory to lie somewhere along this road, perhaps at Mt. Madhara.1816 The territorial boundaries to the north and south are harder to determine as there are no other major poleis in these directions for a considerable distance. Like Teuthis, however, we might imagine the Ghortiniaka Mountains to the northwest as dividing Theisoa’s territory from Thelpousa, Mt. Korifes representing its northeast border with Torthenion, and the bulk of Western Menalo forming its border with the poleis of the Helisson River valley.1817

The hill of Teuthis itself comprises a small north-south oriented spur emanating from Mt. Xerovouni, a northern peak of Western Menalo [Fig. 8.12]. It rises ca. 75 m

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1817 On Torthenion, see Appendix II.
above the plain to the west, measures ca. 160 m by 70 m, and is attached to the larger mountain to the southeast by a flat and narrow saddle. Furthermore, although all of the hill’s slopes are covered today by a thick forest of pine trees, only the north and west sides can be said to be precipitous [Fig. 8.13]. The east and south sides of the hill, on the other hand, present a more gentle and rolling descent. Besides being extremely steep, the northern slope was further protected by a small, but fast-flowing stream. A tributary of the Lousios/Gortynios meeting in the plain to the west, this stream, originating northeast of the site, follows the same course towards Theisoa as the road from Methydrion. Finally, the top of the hill itself is free of trees and relatively flat – sloping away slightly in all directions from the summit in the middle.

8.2.2 The Fortifications

It is clear from the early travel accounts that fortifications generally form the most conspicuous remains surviving from antiquity in the Greek landscape today, and the fact that no 19th century traveler was able to discern any ancient remains around the village of Karkalou is revealing. It was not that these men were any less diligent in their observation or recording; instead, their silence on the fortifications of Theisoa is
indicative of the poor condition of the remains. Indeed, the preservation of the walls is incredibly poor, and what little can be seen on the surface is limited almost exclusively to the north and south sides of the hill – the rest is largely buried beneath thick vegetal overgrowth lining the slopes. Paradoxically, however, the same vegetation obscuring the remains along the edges of the hill actually preserves the original course of the walls.

Fig. 8.14. Satellite image of acropolis showing approximate line of fortifications (in yellow) preserved by present tree line

1818 I would like to thank the 39th Ephorate of Prehistoric and Classical Antiquities for granting me a study permit to examine the remains of ancient Theisoa at Karkalou. Because much of the circuit has disappeared or was concealed by overgrowth, however, I was unable to make many useful measurements. Unless otherwise cited, all photographs are based on personal observation from my visits to the site in the winter of 2010 and spring of 2011.
In other words, as there is no heavy vegetation on the flat top of the hill, the thick covering of trees and bushes is limited to where the slopes meet the flat summit of the top – that is, where the original wall would have once stood. By combining satellite images and autopsy, therefore, it is possible to establish a reliable reconstruction of the circuit’s original course.

The combination of autopsy, satellite imagery, and a consideration for the topography leaves little doubt that the entire summit of the plateau-like hill of Theisoa was surrounded by a fortification wall. Along the south side of the hill, directly opposite the adjacent saddle, traces of the large South Tower and Ramp Gate observed and described by Hiller von Gaertringen and Lattermann are still visible. From this gate, the wall began its ca. 150 m long northward course to enclose the eastern side of the hill. Considering that the east side of the hill is not very steep and is provided with nothing in the way of natural defenses, it is unlikely to have remained unfortified. In any event, although only the occasional block is visible amongst the vegetation, as mentioned, the vegetation itself preserves its course. Before the eastern side of the circuit meets the northern side, a small protrusion represents the outline of the Northeast Tower, again observed by Hiller von Gaertringen and Lattermann. While the north side of the hill is extremely precipitous, blocks visibly scattered along the northern slope indicate it was fortified nonetheless across its total distance by a wall ca. 100 m in length. The west

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1819 This was confirmed on the ground by the discovery of isolated blocks and wall fragments amongst the thickest vegetation on all edges of the hill.
1820 This phenomenon is not limited to Theisoa. At Kleitor, for example, the course of the whole western wall is preserved today by a line of trees.
1821 Hiller von Gaertringen and Lattermann (1911:38).
1822 Ibid.
slope is equally steep, and was equally fortified. Here, the wall seems to have traveled
due south for ca. 60 m before swinging to the southwest for another ca. 25 m, following
the topography of the hill by embracing its shape.\textsuperscript{1823} Finally, because the slope opposite
the southwest part of the summit, like the east side, is mild and without natural
protection, we can imagine a wall running in a more or less straight line for ca. 80 m to
the South Tower.

Although Theisoa was certainly a small \textit{polis}, likely with an equally small
population, measuring a mere ca. 160 m x 70 m, the fortified hill at Theisoa is seemingly
too small to have permitted any considerable intramural habitation. The location of the
primary area of habitation is discussed below, but suffice to say, the fortifications at
Theisoa are unquestionably an example of the acropolis-type.\textsuperscript{1824} Determining the
masonry style is complicated by the poor preservation as well as by conflicting accounts.
Scranton, for example, describes the walls of Theisoa as rubble masonry based on a
photograph published in Hiller von Gaertringen and Lattermann’s \textit{Arkadische
Forschungen}. Yet Scranton’s description does not match Hiller von Gaertringen and
Lattermann’s own description of the wall, in which they noted “das Streben nach
horizontaler Schichtung.”\textsuperscript{1825} Based on what is visible at the site today, however, it
appears that Hiller von Gaertringen and Lattermann were correct and, more specifically,
the walls appear to be largely comprised of large blocks arranged in an irregular
trapezoidal style [Fig. 8.15]. Finally, although the remains of blocks can be found strewn
across the slopes throughout the site, there is not nearly enough of them – even allowing

\textsuperscript{1823} Part of this southwest wall was observed by Hiller von Gaertringen and Lattermann (ibid).
\textsuperscript{1824} Hiller von Gaertringen and Lattermann (1911:25) also maintain that the primary habitation was
elsewhere and the fortified hill must have been the acropolis.
\textsuperscript{1825} Ibid., (1911:38).
for the possibility of their reuse in the village – to suggest an all stone superstructure for the circuit. Instead, the fortifications of this modest *polis* were certainly fashioned in

![Fig. 8.15. Irregular trapezoidal masonry of Northeast Tower (facing NW)](image)

Fig. 8.15. Irregular trapezoidal masonry of Northeast Tower (facing NW)

![Fig. 8.16. Plans of South Tower, Gate, and Northeast Tower on acropolis from Hiller von Gaertringen and Lattermann (1911:38, abb. 13.)](image)

Fig. 8.16. Plans of South Tower, Gate, and Northeast Tower on acropolis from Hiller von Gaertringen and Lattermann (1911:38, abb. 13.)
mudbrick atop a low stone foundation.

The visible remains and limited previous investigations of the fortifications restrict the discussion of the circuit’s constituent parts to the South Tower, the Northeast Tower, and the Ramp Gate [Fig. 8.16]. The appropriately named South Tower occupies the southernmost part of the circuit and is preserved to a height of 1.08 m.\textsuperscript{1826} It possesses a ground floor chamber, accessible from the intramural area by a ca. 1 m wide opening near its northeast corner [Fig. 8.17]. While this considerable tower measures ca. 8 m wide with flanks ca. 8.50 m long, the adjacent curtains are not attached to the flanks at the same spot; thus, the western side of the tower projects ca. 4.25 m from the curtain while the eastern flank projects only ca. 2.50 m. The walls of this tower are 1.45 m thick.

\textsuperscript{1826} Ibid.
and are comprised of two faces of blocks with a core of rubble and small stones.\textsuperscript{1827} The curtain on the west side of the tower is ca. 2 m thick and radiates at a ca. 45° angle, while the angle formed by its counterpart on the east, also ca. 2 m thick, is less acute.\textsuperscript{1828}

Although east from the South Tower, the curtain disappears after ca. 11.50 m, the presence of a ramp, stairs, and another tower immediately opposite, suggests that it would have terminated at a gate [Fig. 8.18]. Here, as succinctly described by Lawrence, “a stair led straight up the hill, whereas [a] card-road ascended aslant, passing to the right of a tower and continuing on a ramp till both routes met at a gateway, and turned leftwards into it.”\textsuperscript{1829} Even without the converging stairs and ramp, the discovery of a lintel stone

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig818.png}
\caption{Fig. 8.18. Photograph showing approximate limits of the stairs leading up to gate (facing W)}
\end{figure}

\textsuperscript{1827} Ibid. Presumably the curtains and towers throughout the circuit were similarly constructed.
\textsuperscript{1828} Ibid.
\textsuperscript{1829} Lawrence (1979:308).
and pillars establishes without a doubt the presence of a gate.\textsuperscript{1830} The gate was protected on its east side by a small rectangular tower, measuring ca. 5.50 m on its south side, ca. 5 m on its east, and projecting only 3 m from the curtain to the north. Although considerably smaller than the South Tower, this tower also appears to have had a ground storey chamber, accessed by a small opening in its northwest corner.

Hiller von Gaertringen and Lattermann provide very little information about the Northeast Tower, save that it “ist noch mehrere Schichten hoch trefflich erhalten”\textsuperscript{1831} (see Fig. 8.15). From their plan, however, several things are clear. Most obvious is, like Tower 2 from the so-called South Fort at Gortys, without an interior, this tower is better described as a pseudo-tower or bastion. Moreover, generally rectangular in shape, the Northeast Tower presents three faces of differing lengths – i.e., ca. 3 m to the south, 6.50 m to the east, and 9 m to the north. Interestingly, this northern face terminates at a small jog in the curtain. Also observable is how thin the curtains are here compared to the rest of the extant remains. Indeed, measuring barely ca. 1 m thick, we are left to wonder whether they represent only one of the original two faces, and if so, why the other face and the core are no longer visible.

\section*{8.2.3 Strategy, Tactics, and Defensive Planning}

Although the extant remnants of Theisoa’s “ruined little enceinte”\textsuperscript{1832} are few and far between, they can still shed light on a number of defensive objectives that were envisioned with the circuit’s conception, including the strategic choice of site and the tactical use of the system’s composite parts. The advantages provided by the height of the

\begin{footnotesize}
\begin{enumerate}
\item[1830] Hiller von Gaertringen and Lattermann (1911:38).
\item[1831] Ibid.
\item[1832] Lawrence (1979:308).
\end{enumerate}
\end{footnotesize}
hill notwithstanding, the hill was very well chosen for the site of Theisoa’s acropolis. Not only did it command a small plain – otherwise rare for a central Arkadian polis – but both the geographical location and topography of the hill were ideal for a functioning acropolis. Geographically located in the heart of the Peloponnese, Theisoa was strategically situated both astride the main road linking western and eastern Arkadia (like Teuthis), as well as at the terminal end of one of the major routes linking the central portion to northern and northwestern Arkadia. The Lousios/Gortynios River and its tributaries ensured the area was well watered, while both the plain on the west and low foothills to the east offered a significant amount of arable land suitable for agriculture and pastoralism.

Provided with a number of considerable natural defenses, the topography of the hill itself was also well suited for its function as an acropolis. As demonstrated, the choice of fortifying a hill that is comprised of a spur, separated from the bulk of a mountain by a narrow saddle, was a common prerequisite for many Arkadian sites. It provided elevated terrain, both large enough for habitation and close enough to retreat to the acropolis in times of danger. That being said, while the exact location of the lower city is not certain, based on the arrangements at similar sites, Hiller von Gaertringen and Lattermann, as well as Jost, are probably correct in their contention that the main area of habitation did indeed cover this saddle. Concerning the natural defenses, furthermore, the north and west sides of the hill are extremely steep and difficult to scale. The north side of the hill, moreover, had two additional measures of natural protection: a small but rapid stream running across its base, and the hills rising from its opposite bank.

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1833 E.g., Nestane, Halous, Teuthis, and Paos.
These elements, as well as the precipitous north and west slopes, would all but have
guaranteed that any attack launched on the city would not have come from either of those
directions. Conversely, the east and south sides of the hill possessed no discernable
natural advantages and relied instead almost exclusively on the tactical advantages
afforded by the man-made defenses.

The trace of the fortifications around the edge of the hill as well as the form and
location of its tactical components, clearly reflect the inherent topography of the hill. In
this way, the fortifications work to both amplify the natural strength of the hill’s steep
north and west slopes, while at the same time, compensating for the natural weakness of
the terrain on the east and south sides. The South Tower, for example, was strategically
positioned where the acropolis was arguably most vulnerable – opposite the saddle and
next to the Ramp Gate. A concern for protecting both the saddle and the gate is reflected
in the tower’s size and orientation. Measuring ca. 8 m wide with flanks ca. 8.50 m long,
the South Tower is not only the largest surviving tower, but is also likely the largest
tower to have existed in the original circuit. Its position here, in the southernmost part of
the circuit, and its orientation indicate careful and cautious consideration. It is not a
coincidence, for example, that it presents its main face to the saddle and the lower part of
the ramp to the south; nor that the acute angles formed by the attached curtains allow a
greater than 180° viewshed; nor that this viewshed includes coverage of the southwest
curtain west of the tower, and both the upper ramp and gate to the east. The location and
orientation of the Ramp Gate demonstrate similar consideration, but the gate and
approach are really only intelligible when the South Tower is viewed as part of the same
system.
That the South Tower should be understood as part of the larger gate system is not surprising when one considers it lies only ca. 12.50 m away. Moreover, as mentioned, its southwest corner was positioned to cover both the ramp and the gate. Besides the South Tower, however, the gate was provided with another tower. Although smaller than the South Tower, this one was equally well positioned as the architects ensured that its longest side faced south in order to directly overlook the ramp, as well as the top of the stairs. The position of this tower not only guaranteed that an enemy would be forced to expose its unshielded right side upon approach, but its proximity to the South Tower ensured that the same enemy could find itself vulnerable to enfilading from the left also.

The ramp and the stairs were crucial to this tactic, as they dictated the actual approach by compelling people to advance to the gate between these two towers. Even though the South Tower and Ramp Gate are designed primarily to safeguard the approach from the vulnerable saddle to the south, we see in the orientation of the gate’s smaller tower, a concern for protecting the east side of the acropolis.

As stated above, the east side was amongst the most vulnerable parts of the acropolis. Whereas the north and west sides of the hill are especially precipitous, the east side had no natural defensive advantages. It does not have a steep slope or rapid stream, or even exposed bedrock, but instead consists of a moderate to gentle slope that opened up onto the adjacent low and rolling hills [Fig. 8.19]. While the placement of the gate opposite the adjacent saddle was common for its practicality, if nothing else, its precise location at Theisoa, both across from the saddle and at the point where the circuit swings north, was a tactical – not to mention economical – decision. From this position, the tower immediately flanking the gate was well sited to protect the approach from its south
flank, while protecting the vulnerable east side from its north and east faces. The Northeast Tower plays a similar role, although one it seems devoted entirely to the protection of the exposed east side of the acropolis.

Based on the concern exhibited for the east side as demonstrated by the position and orientations of the gate tower and the Northeast Tower, it is safe to assume that other towers must have existed on this side between the two. Although none are visible today, a century ago, Hiller von Gaertringen and Lattermann cryptically noted that besides the Northeast Tower, “Sonst sind lauern und Türme stark zerstört.” Approximately 110 m stand between the Northeast Tower and the gate tower. Thus, based on an average of around 30 m – a common tower spacing at other sites – the east side could have accommodated at least another three towers, regularly spaced, between the two extant examples, bringing the total to five on the east side. We might imagine a similar deployment of regularly spaced towers along the southwest side, which although possessing slopes steeper than on the east, cannot be said to be precipitous. While

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1835 Hiller von Gaertringen and Lattermann (1911:38).
admittedly conjectural, the need to protect the exposed east side, and to a lesser extent, the southwest side, make such a reconstruction neither irresponsible nor implausible.

Because of the poor preservation of the remains, establishing other perceived defensive concerns and reconstructing tactical considerations also relies on analogy as well as the understanding that the walls reflect the natural topography of the hill. It is reasonable to suppose then, for example, that the circuit possessed only the one gate. The east side is the only other part of the circuit toward which the approach could practically facilitate another gate. Yet piercing the curtain with an opening here would be a further defensive liability in what is already the most vulnerable part of the circuit. Indeed, while it is not impossible that the east or southwest sides were provided with a postern or two, certainly a single gate, close to and facing the main area of inhabitation (i.e., the saddle), would have been sufficient as the safest way to satisfy the circuit’s function as an acropolis – a place of refuge to which the populace need only retreat in times of danger. Finally, if the ca. 2 m thick walls attested for the curtains attached to the South Tower and the ca. 1.50 m thick curtain attached to the gate tower, are taken as representing the more or less average thickness for the rest of the circuit walls, it is immediately clear that when allowance is made for the parapet, the remaining width devoted to the wall-walk would have been most insufficient. Thus, as Winter suggests for Gortys, we might imagine the walls of the Theisoan acropolis to have been provided with wooden scaffolding, or ikria, to increase the width of the parados.\textsuperscript{1836}

\footnote{\textsuperscript{1836}Winter (1971a:147).}
8.2.4 Chronology

Attempting to determine a reliable chronology for the fortifications at Theisoa presents the same difficulties as those encountered above concerning the walls of Teuthis. Although there is a greater quantity of both external and internal evidence than for Teuthis, the fact remains that what evidence we do possess sheds little light on the chronological question. The epigraphical evidence, for example, while instrumental in establishing ancient Theisoa as a polis, is of little use in attempting to date the walls. That these texts range in date from the fourth century BCE to the late third/early second century BCE, provide only a terminus post and terminus ante quem for the settlement’s polis status, and by association, the likeliest chronological range for the construction of the fortifications. Although chosen to participate in the synoikism of Megalopolis, it is not even certain whether the decision was implemented. Furthermore, attempting to narrow down a more specific date is complicated by the fact that the same historical catalysts provided by Pikoulas for the construction of the walls of Teuthis apply also to Theisoa.\(^\text{1837}\) This in itself is not surprising as these two poleis are separated by only 8 km, both were part of the same συντελεία headed by Orchomenos, both were members of the Arkadian League and later, of the Achaian League. The internal evidence provided by the archaeological record and the walls themselves is only slightly more obliging.

Unfortunately, the limited excavation conducted by Oikonomos at Theisoa a century ago – largely focusing on a temple on the summit – offers no direct chronological insight about the fortifications. Still, it is important to note that the oldest remains that he

discovered, as related in his brief report, are from the third century BCE. Concerning
the walls themselves, although there is nothing in the extant remains that speaks
exclusively to any time between the fourth or late third century BCE (like Teuthis), there
are elements, which when taken together, do tend to support a later date along this
chorological spectrum. Indeed, while the ground storey chambers in the towers (common
after the time of Epaminondas) and the presence of a ramp gate (based on analogous
examples from Stymphalos and Asea) may point to an early or middle fourth century
BCE date, other elements of the fortifications resemble more closely the late third century
BCE features from Gortys. Although it presents three instead of four faces to the field,
the projection of the South Tower, for example, and the wide viewshed provided by the
acute angles of the attached curtains, closely resemble the arrangement of the corner
towers from the so-called ‘South Fort’. The size of the South Tower, 8 m x 8.50 m, also
suggests it belongs to the period after the widespread use of defensive artillery.
Furthermore, the way the South Tower stands independent of the curtain – with its back
projecting into the intramural area – is particularly reminiscent of the construction of
Tower 4, again from the ‘South Fort’ at Gortys. Moreover, with the absence of an internal
structure, we see in the Northeast Tower at Theisoa what is essentially a pseudo-tower –
one with an equivalent in Tower 2 from Gortys’ ‘South Fort’. Finally, the thin curtains in
the Theisoan circuit find few parallels in Arkadia, save for the walls of the ‘South Fort’.

Lawrence confidently asserts that the fortifications of Theisoa “may be either a
third-century fort of the Achaean League or a refuge built by the Arcadian inhabitants

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1838 Oikonomos (1911-12:243).
when they regained independence after 194.”

Certainly the Achaian League may have played a role (political or economic) in the construction of the Theisoan circuit, but the epigraphical evidence suggests that Theisoa was a *polis* at least until the late third century BCE, and not a fort or simple place of refuge. Yet Lawrence’s belief in a third century BCE date does seem essentially correct. The parallels between the fortifications of Theisoa with the ‘South Fort’ at Gortys, which almost certainly date to the late third century BCE, are compelling. Ultimately, therefore, while the evidence cannot completely exclude the possibility of a later fourth century BCE date, on the whole it suggests that in all probability the walls of Theisoa were erected some time in the third century BCE, most likely during its second half.

8.3 Ancient Dipaia

As is too often the case for many of the minor Arkadian settlements, we know regrettably little about ancient Dipaia. Certainly its infrequent mention in the historical record and paucity of archaeological remains played a part in fostering the apparent lack of interest in the site today. Nonetheless, its fairly secure geographic identification, the visible remains of fortifications (however limited), and its probable *polis* status, warrant the inclusion of Dipaia in this study. The city’s only real claim to fame is its mention by Herodotus as the place where a battle between the Spartans and Arkadians was fought, sometime in the 470s or 460s BCE. In his description, Herodotus provides the first of two surviving examples of the external use of Dipaia’s city-ethnic. The other example

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1839 Lawrence (1979:308).
1840 For the chronology of the fortifications at Gortys, see section 7.2.4.
1841 Hdt. 9.35.2. The exact date is not clear. Nielsen (2005:553) mentions the 460s BCE and Pikoulas (1999b:126) mentions 469/68 BCE, and in his translation/commentary of Isocrates’ *Archidamus* – which mentions the battle at Dipaia – Norlin (1980:6.99) gives the precise date of 471 BCE.
comes from a fourth century BCE inscription discovered at Nemea, the exact nature of which is unclear.\textsuperscript{1842}

Besides the external use of the city-ethnic, Pausanias provides further support that Dipaia was likely a \textit{polis} by retroactively referring to it as such in his list of settlements voted to participate in the synoikism of Megalopolis; he tells us that Dipaia was one of “the cities [πόλεις] which the Arkadians were persuaded to abandon through their zeal and because of their hatred of the Lakedaimonians.”\textsuperscript{1843} Pausanias also records that Dipaia produced an Olympic victor, sometime around the middle of the fifth century BCE.\textsuperscript{1844} While inferring a \textit{polis} status from any one of these pieces of evidence alone would be dubious, taken together they form a more solid foundation for establishing Dipaia’s probable \textit{polis} identity.

The Battle of Dipaia recorded by Herodotus is the only documented episode in the history of this small city. Yet, we know next to nothing about the specific details of the battle; indeed, all the information at our disposal comes from one sentence in Herodotus: in the 460s or 470s BCE, there was a Spartan victory “over all the Arkadians, save the Mantineians, at Dipaia.”\textsuperscript{1845} There is no clue as to the nature of this alliance, but presumably the soldiers of Dipaia, if they in fact participated, fought on the side of their fellow Arkadians. Pieces of the subsequent history of this small Mainalian community is derived almost exclusively from plausible inference. That the city was a member of the Arkadian League, can be inferred by its inclusion in the list of settlements participating in

\textsuperscript{1842} SEG 23 179. On this inscription, see Bradeen (1966:321).
\textsuperscript{1843} Paus. 8.27.3.
\textsuperscript{1844} Paus. 6.7.9; \textit{Olympionikai} no. 314 (ca. 440 BCE).
\textsuperscript{1845} Hdt. 9.35.2.
the synoikism of Megalopolis.\textsuperscript{1846} But, as Nielsen maintains, it is not certain if the
decision to relocate was actually implemented.\textsuperscript{1847} Lastly, it may be assumed that Dipaia
was a member of the Achaian League in the late third/early second century BCE since
League coins bearing the name ‘ΔΙΠΑΙΕΩΝ’ were issued ca. 194 BCE.\textsuperscript{1848}

Pausanias’ mention of Dipaia among the other settlements in the upper Helisson
Valley encouraged a number of travelers to visit the area during the 19\textsuperscript{th} century.\textsuperscript{1849} Like
the other central Arkadian poleis discussed in this chapter, these travelers wanted to
identify the precise locations of the settlements in Pausanias’ otherwise vague geographic
description of the area. Consequently, two main possible locations for the site of ancient
Dipaia were forwarded: one beneath the medieval remains at modern Piana,\textsuperscript{1850} the other,
on an isolated rock beside the village of Davia [Fig. 8.20]. Based on the order of
Pausanias’ narrative which (from north to south along the upper Helisson Valley),
mentions the settlements of Helisson, Dipaia, and Lykaia, Leake was the first to suggest
that Dipaia occupied the site near Davia, a point on which most scholars agree today.\textsuperscript{1851}
In this generally accepted scenario, ancient Helisson is placed either at the source of the
river at modern Alonistena or further south at Piana; ancient Dipaia is situated at modern
Davia; and ancient Lykaia lies somewhere near the southern end of the valley.\textsuperscript{1852}

\begin{itemize}
\item \textsuperscript{1846} Paus. 8.27.3.
\item \textsuperscript{1847} Nielsen (2002:553).
\item \textsuperscript{1848} Head (1963:418).
\item \textsuperscript{1849} Leake (1830:2.52); Ross (1841:117-18); Curtius (1851:1.316); Frazer (1898:4.317); Bursian (1862:
2.228).
\item \textsuperscript{1850} As held by Ross (1841:117-18), Frazer (1898:4.317), and Levi (1971: 447, n. 220).
\item \textsuperscript{1851} Paus. 8.30.1; Leake (1830:2.52); Howell (1970:100); Jost (1973:253); Pikoulas (1999b:126); Nielsen
(2002:53). Curtius (1851:1.316), Bursian (1862: 2.228), and Philippson (1903:1151) do not exclude either
Davia or Piana as possibilities.
\item \textsuperscript{1852} For a detailed appraisal on the settlements and their locations, see Pikoulas (1999b:125-28).
\end{itemize}
8.3.1 Geography and Topography

The ancient site of Dipaia is located in the middle of the southern half of the upper Helisson Valley, approximately 1 km southwest of the modern village of Davia [Fig. 8.21]. Sandwiched between Mt. Menalo to the north and east, and Western Menalo...
to the west and southwest, the valley itself, oriented northwest-southeast, is about 8 km long by 2 km wide at its maximum dimensions. Besides defining the valley itself, these two mountains also served to separate it from the plains and *poleis* of Megalopolis, Asea, Methydrion, Mantinea, and Tegea to the southwest, south, north, east, and southeast respectively. Determining the territorial boundaries of this small *polis* within the valley itself, however, is more difficult owing to the other two settlements attested in the valley. It is reasonable to assume that ancient Helisson lies around the area of modern Alonistena. Not only is this the source of the Helisson River, which Pausanias says is found “at a village of the same name,” but if the city of Helisson did become a dependant *polis* of Mantinea – as the epigraphical record indicates – its location at Alonistena is appropriate because of its proximity (only ca. 15 km due west) and accessibility to the Mantinean plain. Of the other settlement, Lykaia, Pausanias’ is the only mention. Based on the order of his narrative, however, it likely stood somewhere in the southern end of the valley, perhaps along the river in the hills southeast of modern Tselepakos. In this setting, the territory of Dipaia would more or less comprise the majority of the plain in the southern half of the valley.

Located on the edge of an hourglass-shaped plain, like Theisoa, Dipaia was one of the few central Arkadian communities fortunate enough to have commanded an area of flat terrain [Fig. 8.22]. Specifically, the site itself occupies a small hill which projects from the west side of the plain at its narrowest point. The plain opens up immediately north and south of the site, bordered on the east by the steep lower slopes of Mt. Aidinis

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1853 Paus. 8.30.1.  
Fig. 8.22. Topographical map of Dipaia and surrounding area

(southern part of Mt. Menalo), and on the west by a series of low hills radiating from Mt. Kakotsouroumi. Continuing its journey from Alonistena, the Helisson River enters the plain north west of Dipaia (just south of modern Piana), from which it travels in a southeast direction before swinging due south immediately west of the site. From Dipaia, the river continues southeast down the middle of the plain before making a 90° turn to the southwest on its way to Megalopolis and its eventual confluence with the Alpheios.

Finally, in the plain itself, the Helisson River is served by a number of tributaries and seasonal streams, especially from the foothills immediately west of the site.

The hill itself represents the known limit of the site. It measures about 200 m long from east to west, and ca. 150 m north to south, and rises only around 40-50 m from the plain below [Fig. 8.23]. Roughly triangular in shape, it slopes away gradually to the

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1855 Located on a small hill at the fore of a number of other small hills behind, the topographical situation at Dipaia is very similar to the composition of the acropolis of Asea.
1856 Howell (1970:100).
northeast (and more considerably towards the east) from its highest point in the southwest corner. Exposed bedrock abounds on the hill, especially along its edges where it rises to form a natural crest or plateau which is visible around most of the hill’s circumference. As in antiquity, today the only practical access to the hill is from the east. Not only is this side the lowest part of the hill, but it also possesses its only moderate slope. Indeed, the south, west, and north sides of the hill are characterized by their precipitous slopes and inaccessibility. Indeed, the exposed bedrock crest gives the impression that the summit of the hill is actually a sheer limestone plateau growing up from the surrounding slopes [Fig. 8.24]. This is most apparent on the west and south sides, where the edges of this plateau are especially sheer and in places nearly vertical.
8.3.2 The Fortifications

The fortifications at Dipaia have never been studied (or at least published) in any detail.\(^{1857}\) Like the walls of Pheneos, therefore, the discussion that follows is based almost exclusively on personal reconnaissance of the site [Fig. 8.25]. Upon ascending the site, one is immediately met with the well-preserved remains of a gate at the northern end of the hill’s east side. South of the gate, parts of the curtain are visible beneath medieval additions, and its course suggests that it continued in a straight line to envelope the entire east side of the hill. Traces of the wall are also visible radiating from the northwest side of the gate. These soon disappear, however, and whether a wall once enveloped the northwest side of the hill, or whether its defense relied primarily on the steep slope is uncertain.\(^{1858}\) Remains of the wall reappear on the west side of the hill, set atop outcrops

\(^{1857}\) I would like to thank the 39th Ephorate of Prehistoric and Classical Antiquities for granting me a study permit to examine the remains of ancient Dipaia. Because most of the circuit has disappeared, however, I was unable to make many useful measurements. Unless otherwise cited, all photographs are based on personal observation from my visits to the site in the fall of 2009 and spring of 2011.

\(^{1858}\) The conjectural course of the original circuit is discussed in greater detail below.
Fig. 8.25. Satellite image showing reconstruction of original line of fortifications based on known remains and topography of hill

of bedrock, and overlooking the near vertical drop below. It likely once covered the entire western edge. Finally, from the southwest corner of the hill, intermittently visible sections of the wall suggest it continued in a more or less straight line along the southern edge of the hill, where it joined the southern terminus of the eastern trace.

Both the inherent natural strength and small size of the hill at Dipaia point toward the near certainty that it represented the city’s acropolis, and it follows, of course, that the fortifications are of the acropolis-type. The presence of small, largely unworked field stones held together by mortar atop parts of the original wall plainly betray its modification and reuse in the medieval period. The original circuit, however, is clearly visible below these later additions and, as noted by Curtius and Ross, is comprised of
large polygonal blocks laid in roughly horizontal courses [Fig. 8.26]. The abundant bedrock outcrops and signs of quarrying on the hill suggest that the limestone for these blocks was acquired on site. Moreover, that the surface of the blocks appears to have been brought to a nearly flat surface, suggests the application of a tool-faced surface treatment. While the internal composition of the walls is nowhere visible on the site – having been largely obscured by the later medieval additions – presumably the curtains were originally comprised of the usual two faces of blocks with a core of rubble and

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Fig. 8.26. a) composite photograph showing coursed polygonal masonry on west edge of hill (facing E); b) photograph of eastern curtain showing medieval additions atop original walls (facing W)

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1859 Ross (1841:117); Curtius (1851:1.315).
packed earth between. The nature of the superstructure, although also conjectural, must have been mudbrick – as suggested by both the lack of blocks around the extant remains and the assumption that if fallen blocks were at hand, the medieval additions would have employed them rather than the small stones. Finally, it should be noted that wherever the bedrock around the edges of the hill was high enough, the architects incorporated it into the foundations of the curtain (see Fig. 8.27).

Regrettably, the walls at Dipaia have not fared well through the ages and are only poorly preserved as isolated sections around the hill. None of the surviving sections of curtain, for example, is more than a couple of courses high or exceeds more than a few meters in length. There are, furthermore, no confident extant examples of either towers or posterns among the remains or in the accounts of the early travelers. The poor preservation characteristic of most of the remains makes it all the more miraculous that a gate does survive, and almost in its entirety [Fig. 8.27]. Although the medieval additions

Fig. 8.27. Photograph of gate on east side of acropolis (facing NW)
predominate and have obscured much of the gate, traces of the original are still visible beneath. Apparently a simple opening type, this gate possessed a narrow opening only ca. 2 m wide and oriented east-west. While no towers are evident, the fragmentary remains hint that the northern half may have been a small bastion. Seemingly the acropolis’ only gate, it was approached from the east by a moderately inclined and zigzagging path, the last stretch of which ran below, and almost parallel to, the hill’s eastern curtain.

8.3.3 Strategy, Tactics, and Defensive Planning

The fragmentary condition and paucity of the remains restrict our understanding of the individual tactical decisions employed by the fortifications’ architects, but not the inherent defensive strategy behind their choice of site. Taken together, its geographic location within the Upper Helisson valley and the local topography around the site demonstrate just how well suited the hill is for the acropolis of a small polis. For the same reason that it would be reoccupied during the medieval period, the acropolis of Dipaia comprised arguably the most defensively advantageous position in the valley. Located at the narrowest part of a narrow plain not only ensured that any approach to the city (hostile or otherwise) would be predictable from the north or south, but that any approach through the territory would not go unnoticed from the acropolis [Fig. 8.28]. Indeed,

Fig. 8.28. Panoramic photograph of Helisson Valley demonstrating viewshed from acropolis (facing N to SE)
Dipaia was strategically located astride one of the major arteries of central Arkadia. Like the major east-west road across central Arkadia (occupied by Methydrion, Theisoa, and Teuthis), the Upper Helisson Valley also represented an important link to the great plains of both eastern and southern Arkadia. As this valley extended all the way to Methydrion in the north, it also would have facilitated travel within central Arkadia itself as the north-south equivalent of the main east-west road.

Besides ensuring a ready water supply for the city’s inhabitants, the Helisson River and its tributaries represented a further element of protection for the acropolis. Located only ca. 100 m to the east, the Helisson River runs parallel to both the northeast and east sides, mirroring the base contour of the hill. Seasonal streams and tributaries originating in the low hills west of the site provided additional natural defenses to the north and west sides and further restricted the approaches to the acropolis. Nor were the south and southwest sides of the hill devoid of natural protection [Fig. 8.29]. Here, the rolling and heavily forested hills emanating from Mt. Kakotsouroumi – the westernmost of which is actually the acropolis – ensured an incredibly difficult approach from that
direction. In the event that an enemy was able to navigate this forest or even command the east side of the river, it would have to contend with the second line of defense – the topography of the hill itself. The natural defensive strength of the hill is unparalleled in any other part of the valley and must have been a key factor behind its choice as the Dipaian acropolis. The near vertical slopes of the plateau-like bedrock shelf representing the uppermost elevation of the hill made it virtually impregnable on its west and south sides, and to a lesser extent, on the northeast side [Fig. 8.30]. This, of course, raises the question of whether the defense of parts of the hill was trusted to the topography or whether the circuit – the third line of defense – enveloped all sides of the hill.

As discussed above, substantial remains of the eastern curtain in the vicinity of the gate suggest that the entire eastern side was fortified. Even without this evidence, that it faced the main approach and only navigable (and thus most vulnerable) part of the hill

![Fig. 8.30. Photographs showing the impregnable slopes on a) west side of acropolis (facing S); and b) south side of acropolis (facing W)](image-url)
would be sufficient to reasonably suppose that the whole eastern side was provided a wall. Isolated, but seemingly associated remains of the curtain on both the west and south sides also indicate that these sides were fortified along most (if not their entire) length [Fig. 8.31]. If the architects thought it necessary to fortify the already strong and precipitous sides on the south and west, it stands to reason that the same precaution was taken for the weaker northwest side of the acropolis. Finally, the fact that traces of the wall appear once again at the northwest and northeast corners of the hill, and that this, the northeast side is the section closest to the village – and thus the area most likely to have been stripped for building material – suggests the northeast side of the acropolis must surely also have been fortified.

Fig. 8.31. Extant sections of curtains on a) the west side of acropolis (facing N); b) the west side of acropolis (facing S); c) the south side of acropolis (facing NW)
As alluded to at the beginning of this section, the paucity of remains, the poor condition of what does survive, and a general lack of identifiable features, limit what can be said about the tactical elements and larger defensive planning originally envisioned by the system’s architects. Indeed, besides the existence of a single gate and the reasonable hypothesis that the circuit once enveloped the entire hill, little can be said with certainty. Still, there are some suppositions which may be plausibly forwarded based on what is known and what is reasonable. It is likely, for example, that the extant gate, as is the case with other fortified acropolis sites, was the only one in the circuit. This is a simple deduction based on the fact that a small functioning acropolis needs only one gate – not to mention it is safer with only one – as well as the fact that the topography of the hill precludes access to the summit from any other side but the east. As the gates from the analogous examples directly faced the main area of habitation, it raises the question of where exactly the lower city of Dipaia was located. As the settlement should presumably be sought on the west side of the river – the purpose of an acropolis is defeated if the people cannot get to it quickly and relatively easily– then the south side of the acropolis presents the likeliest candidate. The course of the river and its proximity to both the east and north slopes of the acropolis, rule out habitation on those sides, as does the unsuitably uneven terrain on the west. On the other hand, the even and moderate slope characteristic of the terrain south of the acropolis provides the only setting appropriate for the population of this small polis.

Concerning other tactical elements envisioned in the defensive planning of the acropolis, we shift from the realm of what is probable to what is merely plausible. For

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1860 E.g., Nestane, Paos, Theisoa, Halous.
example, although there are no remains which are recognized as conclusively belonging to towers, it is plausible that the circuit once employed several. The low and relatively exposed east side (including the gate), would have benefited greatly from the additional protection that towers could have provided the main approach. Similarly, it is not hard to imagine towers advantageously placed at the other two corners of the triangularly-shaped plateau, at the northwest and southwest corners of the circuit – the latter occupying the highest elevation on the hill. The natural strength of the acropolis notwithstanding, it is also reasonable to suppose that other towers would have once lined at least the south and northeast sides – the latter to protect encroachment on the lower city, and the former to reinforce the only moderate natural defenses provided by the acropolis on that side. Finally, although the extremely precipitous slopes on the south and west sides of the acropolis would have negated the use of posterns, the remains do preserve at least one opening on the south side [Fig. 8.32]. Carved out of the bedrock and located at the top of

Fig. 8.32. ‘Opening’ cut into bedrock on south side of acropolis (facing S); note that the greenery visible through openings are not bushes, but actually the tops of trees, themselves located ca. 10 m below.
and opening onto a ca. 10 m vertical drop, the function of this ca. 1 m wide rectangular opening is unclear. While a number of practical civilian and/or military functions may be conjectured, none is mutually exclusive. For example, as it is located on the south side, perhaps this cutting was made for the operation of cranes or some sort of winch which could be used to lift supplies to the acropolis from the lower city below. Similarly, perhaps it housed a rope or ladder used in times of peace to provide a quick way of accessing the acropolis from the lower city. Or perhaps instead of constructing a tower, the bedrock here was simply carved away to form a regular opening to be used to as an artillery port – like the shuttered windows of a tower.

8.3.4 Chronology

With the paucity and character of the poorly preserved remains and the infrequent mention in the historical record, determining a precise chronology for the walls of Dipaia is beset with much of the same difficulties as those encountered at Teuthis and Theisoa. Herodotus’ mention of the Battle of Dipaia on the one hand, and Achaian League coins issued on the other, provides a wide chronological spectrum for inhabitation at the site. Still, a terminus post quem of ca. 470 BCE and a terminus ante quem of ca. 194 BCE, frame a period of some 275 years in which the acropolis fortifications could have been erected. In order to narrow down a more precise date under this wide chronological umbrella, however problematic, we are left with no choice but to rely on the only two pieces of evidence at our disposal: the style of the masonry and historical probability.

The walls of Dipaia were constructed in roughly laid courses of polygonal blocks, a style which Scranton maintains appeared in the Peloponnese during the second half of
the fourth century, generally lasting until the early third century BCE.\textsuperscript{1861} Even if the date of this style should be revised downward as Winter suggests, as polygonal slowly gave way to trapezoidal and ashlar in the Hellenistic period, a stylistic date for the walls at Dipaia covering sometime in the fourth century BCE would still be acceptable.\textsuperscript{1862}

Comparable to the archaeological evidence of the walls, the corpus of information pertaining to the known history of the site is also incredibly limited. What little is known finds direct parallels in the histories of the other central Arkadian poleis. For example, like Teuthis and Theisoa, Dipaia was voted to participate in the synoikism of Megalopolis, was a member of the Arkadian League, and later, was a member of the Achaian League. Unlike these two other poleis, however, Dipaia was not a member of the συντελέια headed by Orchomenos. And it is this fact that may have an important bearing on the date of the walls based on historical possibility.

Although Dipaia was initially voted to participate in the synoikism of the Great City, what if, in a situation perhaps mirrored at Alea and Gortys for example, the decision was not implemented? What if, again perhaps as at Alea and Gortys, it was considered more defensively advantageous to the Arkadian League as whole, to keep Dipaia inhabited, and more importantly, fortified? In this scenario we again see Orchomenos as the lone important polis refusing to join the Arkadian League, and the fortification of Dipaia around the time of the synoikism could reflect a need to keep the major north-south central Arkadian artery (i.e., the Upper Helisson Valley) free from overt Orchomenian influence. Indeed, with their συντελέια poleis Teuthis, Theisoa, and Methydrion, Orchomenos already effectively controlled the major east-west route.

\textsuperscript{1861} Scranton (1941:55).
\textsuperscript{1862} Winter (1971a:81-82, 90).
through the region. The fortification of Dipaia would have ensured that Orchomenians would not have free reign to move through the valley and into the plains of Megalopolis, Asea, Tegea, or Mantineia beyond – the last being especially important because of their historical animosity with the Mantineians. Although admittedly far from conclusive, until further archaeological evidence comes to light, a date for the fortification of Dipaia sometime in the second quarter of the fourth century BCE is in agreement with both the stylistic and historical evidence at hand.
Chapter 9: Topographical, Architectural, and Historical Analysis

In an effort to gain a better understanding of the fortifications from every known Arkadian polis, the previous chapters explored the history, geography and topography, the architecture, the use of strategy and tactics, and finally, the chronology of each defensive system in the region on an individual site level.\textsuperscript{1863} While the cataloguing of extant defensive works is an important aspect of this study, it is only one part, and a truly comprehensive and detailed study of the historical development of Greek military architecture and defensive planning in Arkadia during the Classical and Hellenistic periods requires an equally inclusive interregional synthesis. What follows, therefore, is an examination of the discernable patterns shared and differences exhibited in the geographical distribution of sites, the local topography, and the architecture employed in the various fortification systems. The chronological patterns established in this synthesis are then viewed in the light of both the recognized history of Arkadia as well as historical probability that can be reasonably and plausibly inferred.

9.1 Geographic Distribution

Although the attribution of cardinal points for the location of each site (northern Arkadia, southern Arkadia, etc.) is employed largely for organizational convenience and does not have any historical basis, the general geographic distribution of the fortified poleis does display interesting spatial and chronological patterns. It is not surprising to find all of the fortified sites distributed throughout the inhabitable areas of Arkadia [Fig. 9.1]. Thus we find sites located on the plains without an acropolis (e.g., Mantinea, Kleitor), on the summit of independent hills (e.g., Theisoa [Lavda], Dipaia), on

\textsuperscript{1863} For the catalogue including all the fortified sites and a summary of these points, see Appendix I.
Fig. 9.1. Distribution map of fortified Arkadian poleis explored in this study

mountain spurs (Theisa [Karkalou], Halous, Teuthis) or in areas combining flat and elevated terrain (e.g., Stymphalos, Alea, Psophis). Similarly, we see that the distribution of poleis is usually limited to a single settlement in areas with territories clearly defined in basins. Stymphalos, Pheneos, Kleitor, and Alea, for example, were the only poleis located in their respective basins. The larger and more open plains, however, attracted
more settlements and we see a number of poleis occupying different parts of the same plain. Thus, the same plain was occupied by Mantinea, Tegea, and Pallantion, another was occupied by Orchomenos and Kaphyai, another by Asea and Eutaia, and one by Megalopolis, Oresthasion, and Trapezous. Conversely, those sites that did not possess a considerable amount of flat terrain were confined exclusively to the banks above the major rivers: the Helisson (Dipaia), the Alpheios (Alipheira, Theisoa [Lavda], Heraia), the Ladon (Halous, Thaliades, Thelphousa), the Neda (Phigaleia), the Lousios/Gortynios (Gortys, Teuthis, Theisoa [Karkalou]), and the Lopesi/Sireos (Paos, Psophis). In addition to the obvious spatial patterns, there is also a marked relationship between the geographic distribution of the sites and the date of their city walls [Fig. 9.2].

The earliest fortifications, appearing at poleis in the late fifth/early fourth century BCE, are found in only two geographical areas, the southwest (Alipheira, Phigaleia) and the northwest (Psophis, Paos). That Phigaleia was fortified at such an early date should not come as a surprise, considering its historical animosity and constant skirmishes with Sparta. Although exactly why the other three should have been fortified at that time is more difficult to account for, their specific locations and close grouping do betray an apparent pattern – one perhaps associated with their membership in the Peloponnesian League and Sparta’s larger hegemonic interests. That it was fortified sometime during the Peloponnesian War is not a coincidence. Indeed, with Phigaleian control of the Neda, the long east-west valley commanded by the hill of Alipheira would have represented

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1864 On Pallantion, Kaphyai, Eutaia, Oresthasion, and Trapezous, see Appendix II.
1865 On Thaliades, Thelphousa, and Heraia, see Appendix II.
1866 The dates provided for all of the sites in question refer only to when the settlement was fortified, not founded. With the exception of Megalopolis, presumably all of the sites (or the general area around it) were occupied for a time prior to when it was actually fortified.
Sparta’s most convenient point of access to the Ionian sea, without having to traverse Messenia or either the Taygetos Mts or Mt. Lykaion. Furthermore, as the cities of Achaia were not members of the Peloponnesian League, a fortified Paos and Psophis would also have been in the interests of Sparta, since these poleis controlled one of the main north-south routes from Achaia into Arkadia.
The most perceptible distribution pattern is represented by the explosion of fortification building that occurred in early fourth century BCE Arkadia. As opposed to the later fifth century BCE fortifications, whose distribution reflected Spartan or Peloponnesian League interests, the early fourth century BCE – especially the years around ca. 370 BCE – witnessed a marked shift in the distribution of the fortified sites: instead of looking north to Achaia, all eyes were now firmly fixed on Sparta in the south and Orchomenos in the northeast. Indeed, in an attempt to limit any future Spartan aggression, a confederation of Arkadian cities was established and Megalopolis and Mantineia were founded and re-founded as defensive consolidations under the guidance of the Theban general Epaminondas. Also at this time, we see the fortification of the Gortys, Asea, and possibly Dipaia – poleis which may have been part of the same defensive strategy. Finally, as discussed in greater detail below, it is not a coincidence that this time also saw the fortification of Alea and re-foundation/fortification of Stymphalos. That Elis was an ally of the Arkadian League during the early fourth century BCE likely explains why no new fortifications were built at this time in western Arkadia.

9.2 Local Topography and Choice of Site

On the topography of Stymphalos, Williams and Gourley note that the site was so well equipped with natural defenses that “we must assume that its very form and its position in the valley were largely dictated by defensive considerations.”\footnote{Williams and Gourley (2005:220).} Not limited to Stymphalos, of course, this is a phenomenon observable at every fortified Arkadian polis. Indeed, while informative in some regards, the geographic distribution of fortified poleis is ultimately a product of the local topography at the individual site level. In other

\footnote{Williams and Gourley (2005:220).}
words, the geographic location for a settlement is based on the consideration of a number of local topographic factors, such as the quantity and quality of arable land, an adequate water supply, and particularly important here, its natural defensibility. As repeatedly stressed, in both form and function, a city’s fortifications are a reflection of the local topography. Thus, it is the topographic patterns which are the most revealing concerning the strategy behind the choice of site, its perceived defensibility, and its relationship with the fortifications.

Like most areas of Greece, the larger topography of Arkadia restricted the choice of sites to basins, relatively open plains, or the mountainous heights above the major rivers [Fig. 9.3]. Within these areas, using terminology employed in the present work, the fortifications are categorized as horizontal-, uneven-, or acropolis-types. Of the 19 poleis with extant fortifications, Mantinea represents the only example of a horizontal-type, and with seven and eleven examples respectively, we see that the uneven- and acropolis-type of fortification circuits predominate in Arkadia. Yet even within these broader categories, there are subtle similarities and differences. Uneven-type fortifications, for example, are found both at sites primarily comprised of flat terrain, but in which some elevated height is incorporated for defence (Stymphalos, Alea, Kleitor, Asea), as well as at places which occupy predominately “high ground, either level or unevenly terraced, and preferably at an angle between two rivers”[1868] (Psophis, Phigaleia, Megalopolis). Interestingly, the uneven-type sites are found almost exclusively along the northern and southern peripheral edges of the region. Similarly, the acropolis-type of fortification circuits differ

slightly in the topographical details, and are found encircling both isolated hilltops – with
intramural habitation (Theisoa [Lavda]), without intramural habitation (Dipaia, Pheneos),
or with a fortified lower city on its slopes (Alipheira) – and, more commonly, mountain
spurs where habitation was most often limited to the unfortified slopes or adjacent saddle
(Gortys, Paos, Nestane, Halous, Theisoa [Karkalou], Teuthis, Orchomenos). Taken

Fig. 9.3. Distribution of fortified Arkadian poleis explored in this study by type of
fortification: Yellow = Acropolis-type; Blue = Uneven-Type; Red = Horizontal-Type
together, the examples of the acropolis-type of circuit are found throughout Arkadia, most commonly on the banks above the major rivers.

The types of fortifications encountered in Arkadia and listed above are first and foremost a reflection of the specific local topography and are thus specific to individual choice of site. The location for a settlement was chosen based on primarily two inclusive factors: that the surrounding territory was more or less self-sustainable (including land suitable for agriculture and pastoralism, a ready water supply, and being situated on an important communication route), and that the site was naturally defensible, at least in part. If we take for granted the fact that the respective territories could support and sustain the local populations of all the poleis in question, we are left to consider the second, more variable motivation behind the choice of sites – its natural defenses. Winter maintains that “in all periods of Greek urbanization, the choice of site was a fundamental defensive consideration.” Arkadia is no exception, and a study of the natural defenses inherent in the local topography of these sites demonstrates interesting and revealing patterns. These established patterns are based on the exploitation of three natural defensive variables common to all the sites (individually or in combination), including the incorporation of elevated terrain, the surrounding mountains, and/or local watercourses.

9.3 Natural Defenses

Neolithic remains found scattered on hilltops across Greece and late Bronze Age circuits at Mycenae, Athens, and Tiryns, for example, demonstrate that the defensive
advantages afforded by elevated terrain have long been recognized. Predictably, therefore, we see that all of the Arkadian poleis employing acropolis- and uneven-types of fortifications (i.e., all except Mantineia) have at least some high ground incorporated into their respective circuits [Table 9.1]. As repeatedly stressed, the advantages of occupying elevated ground are obvious and do not need to be recounted in detail. Briefly, as is the main physics principle inherent in artillery towers, defensive missiles fired from a height could reach greater distances than those fired from the ground. Moreover, occupation of elevated terrain gave advantage to defending infantry, as it remains easier to fight moving downhill than up. Finally, as extolled by Aristotle, the high ground facilitated the observation of one’s territory, allowing it “to be taken in at one view.”

<table>
<thead>
<tr>
<th>Arkadian Poleis</th>
<th>Region</th>
<th>Fortification Type</th>
<th>Natural Defenses</th>
<th>First Building Phase</th>
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<tr>
<td>Alea</td>
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<td>Uneven</td>
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<td>Acropolis</td>
<td>Acropolis, 2 rivers</td>
<td>Late 5th (c. 425-400 BCE)</td>
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<td>Assa</td>
<td>South</td>
<td>Uneven</td>
<td>Acropolis, 1 river</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Dipotria</td>
<td>West</td>
<td>Acropolis</td>
<td>Acropolis, 1 river</td>
<td>Early-Mid 4th (c. 375-350 BCE)</td>
</tr>
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<td>South</td>
<td>Acropolis</td>
<td>Acropolis, 1 river, streams</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Halas</td>
<td>West</td>
<td>Acropolis</td>
<td>Acropolis, 2 rivers</td>
<td>Early-Mid 4th (400-350 BCE)</td>
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<tr>
<td>Klericit</td>
<td>North</td>
<td>Uneven</td>
<td>Elevated terrain, 2 rivers</td>
<td>Late 4th-Early 3rd (325-275 BCE)</td>
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<td>East</td>
<td>Horizontal</td>
<td>1 river</td>
<td>Early 4th (c. 370 BCE)</td>
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<tr>
<td>Megalopolis</td>
<td>South</td>
<td>Uneven</td>
<td>Elevated terrain, streams</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
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<td>Nestane</td>
<td>East</td>
<td>Acropolis</td>
<td>Acropolis, streams</td>
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<td>Orchomenos</td>
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<td>North</td>
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<td>Acropolis, 2 rivers</td>
<td>Late 5th-Early 4th (c. 425-375 BCE)</td>
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<td>Phenoves</td>
<td>North</td>
<td>Acropolis</td>
<td>Acropolis, 2 rivers</td>
<td>Late 5th-Early 4th (c. 425-375 BCE)</td>
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<td>West</td>
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<td>Acropolis, streams</td>
<td>Early-Mid 4th (400-350 BCE)</td>
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<td>Pisaphis</td>
<td>North</td>
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<td>Acropolis, 2 rivers</td>
<td>Late 5th-Early 4th (c. 425-375 BCE)</td>
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<td>Theessa (Lavda)</td>
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<td>Acropolis</td>
<td>Acropolis, 1 river, streams</td>
<td>Late 4th-Early 3rd (325-275 BCE)</td>
</tr>
</tbody>
</table>

Table 9.1. Geographic and Topographic Data

1870 For a survey of the distribution of prehistoric remains in eastern Arkadia, see Howell (1970).
1871 Aristot. Pol. 7.1327a.
To these clear advantages could be added the local geology, which often consists of rough and irregular veins of exposed bedrock. Sites fortunate enough to possess elevated terrain exhibiting this geology had a double defensive advantage: not only could the bedrock be fashioned and substituted for stone blocks in the foundations of the wall, as seen at Gortys and Theisoa (Lavda), for example, but steep and rocky terrain could often make additional, man-made fortifications superfluous – as at Nestane, and possibly Teuthis.

The same mountains that often defined a polis’ territory also represented a form of natural defense, as they dictated the approaches to the city and often protected at least one flank. This is expected at those sites which occupy a mountain spur connected to a larger mountain by a saddle. Thus, we see a larger mountain protecting at least one site at Halous, Nestane, Orchomenos, Paos, Teuthis, Theisoa (Karkalou), and Alea. The same defensive principle applies to the acropoleis of Asea and Dipaia, which although not connected to larger mountains, are comprised of hills that are one among several in series of low foothills. Even in sites that are laid out over predominately flat terrain, such as at Mantinea, Stymphalos, Kleitor, and Pheneos, for example, we see in their location a concern for this notion. All of these sites were situated extremely close to surrounding mountains or high hills, separated usually by only a couple of hundred meters. The proximity to or occupation of elevated terrain ensured that the main approaches to the sites were predictable, and thus, defensible. A final natural defense sought in and exploited by the choice of site was, simply put, water.

Of all the demonstrable topographic observations in this study, the role water played in the defense of Arkadian poleis was both the most widespread and the most
surprising. The most widespread since every site without exception has some form of natural hydraulic defense, and the most surprising since it is a fact that is easily overlooked on the ground. Of course the role played by water as a natural defense is obvious at sites like Stymphalos, Gortys, and Halous, for example. But the existence of waterways at other sites is often less perceptible, especially if reconnaissance is limited to the dry summer months. Still, a careful examination of the ancient sources, the early modern travel reports, and satellite imagery establish that all of the sites in question exploited water in some form for defensive purposes.

How the water was exploited is evident in two primary patterns. There are those sites at which tributaries, rivers, or katavothroi-lakes flanked at least one whole side of the settlement. This arrangement can be seen at Dipaia, Orchomenos, Pheneos, Theisoa (Karkalou), Asea, Nestane, and Alea. The other and more common pattern, those sites where watercourses and lakes protected two sides of the settlement, is exemplified at Alipheira, Gortys, Halous, Paos, Teuthis, Theisoa (Lavda), Kleitor, Megalopolis, Phigaleia, Psophis, Stymphalos. Although Mantineia too exploited water as an additional measure of defense, because its course was altered to circumvent the city, it is the only site that does not neatly fit either of these patterns. In any case, the choice of site flanked by one, or more often two, watercourses had a number of defensive advantages. Ultimately the presence of such watercourses functioned to impede, and thus dictate, approaches to the city, and in this way, they worked like natural outworks.

By considering that all of the sites (except Mantineia) took care to incorporate some elevated terrain into the course of their circuit, that all the sites (except Megalopolis) were located very close (or were attached) to the surrounding mountains,
and that all sites (without exception) also had a watercourse protecting one or two flanks, we can appreciate the perceived importance of natural defenses and the important role they played in the choice of site. That being said, it is important to remember that natural defenses provided only part of the equation. As alluded to above, settlement at these sites almost always preceded the construction of the fortifications. It follows, therefore, that even if the location of these settlements were chosen based on their natural defensibility, the strength of such defenses were viewed against the backdrop of contemporary warfare practices – that is, traditional hoplite warfare. With the development and increasingly frequent use of siege machinery – from around the time of the Peloponnesian War onward – the inhabitants of these sites must have immediately realized the necessity of fortifications for security. Indeed, no site was naturally impregnable or completely safe – a fact that became all too apparent to people everywhere with the invention of artillery. Thus, as discussed below, when these poleis were finally fortified, they were done so with careful strategic and tactical consideration, and deliberate care was taken to ensure that the city wall complemented and amplified the already present natural defenses, while at the same time compensating for inadequacies in the terrain.

9.4 Fortification Architecture

The increasing development and deployment of siege craft during the latter half of the fifth century BCE and the invention of the catapult by ca. 399 BCE especially,1872 had lasting and far reaching effects on the security of Arkadian poleis. Like the ripples on a pond radiating from its centre, the succeeding generation witnessed this technology spread throughout the Mediterranean from Syracuse, the place of its invention. The

1872 Diod. 14.50.4.
transmission of this new technology and its offensive potential must have been
accompanied by real defensive concerns. Indeed, it cannot be a coincidence that the
majority of Arkadian poleis were fortified in the generation after its invention. Since
siege engines could not have been easily brought against the steep terrain characteristic of
most Arkadian settlements, in the past, these settlements could trust to the natural
defenses or in a few cases, to the impregnability of their circuits. Artillery machines,
however, were not party to the same restrictions and could inflict considerable damage
from considerable distances – a fact that defenders soon realized worked both ways. It is
clear, therefore, that the increasing risk of catapults being brought against one’s walls and
later, the appreciation of its defensive applications, had direct and lasting effects on the
fortifications of the time and those that followed. The effects of this relationship are
visible in the architecture and implicit tactics of the fortifications of the Arkadian poleis.

9.4.1 The Curtains

The limitations in the use of masonry style for relative dating have been expressed
by others and voiced above. In most cases, other forms of external and internal
evidence have been employed whenever possible to supplement the stylistic evidence
provided by the type of masonry. Still, it would be specious to claim that the polygonal
walls of Dipaia, for example, fit the pattern of the other third quarter of the fourth century
BCE walls if the walls themselves have been dated based solely on this style. To avoid
circular reasoning, therefore, those circuits in which the masonry provided the only date
for the circuits’ construction (Dipaia, Theisoa [Karkalou], Teuthis) are absent from

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1873 E.g., Alipheira, the pre-385 BCE wall at Mantinea, or the early site of Stymphalos thought to be near
modern Lafka (B. Gourley, pers. com.).
1874 See Chapter 3, section 3.3.7.
consideration in the chronological discussion. That being said, an examination of the style of masonry and construction of the walls do reveal interesting spatial and chronological patterns [Table 9.2].

The curtains of the fortifications established in the survey of sites are nowhere consistent, and we see examples of coursed polygonal, regular (uncoursed) polygonal, irregularly coursed trapezoidal, isodomic trapezoidal, trapezoidal with some polygonal, coursed polygonal with some trapezoidal, dry rubble, or combinations of the above. Minor discrepancies aside, however, these masonry styles can be categorized into two primary groups, those circuits constructed in a predominately polygonal style (Alipheira, Phigaleia, Paos, Nestane, Asea, Megalopolis, Stymphalos, Alea, Halous, Pheneos, Mantinea [pre-385 BCE circuit], Theisoa [Lavda], Dipaia), and those which are predominately coursed trapezoidal (Psophis, Mantinea, Gortys, Orchomenos, Kleitor,

<table>
<thead>
<tr>
<th>Arkadian Poleis</th>
<th>Fortification Type</th>
<th>Masonry</th>
<th>Superstructure</th>
<th>First Building Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alea</td>
<td>Uneven</td>
<td>Polygonal</td>
<td>Mudbrick</td>
<td>Early 4th (c. 370 BCE)</td>
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<tr>
<td>Alipheira</td>
<td>Acropolis</td>
<td>Coursed Polygonal</td>
<td>Mudbrick</td>
<td>Late 5th (c. 425-400 BCE)</td>
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<tr>
<td>Asea</td>
<td>Uneven</td>
<td>Coursed Polygonal</td>
<td>Mudbrick</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
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<td>Early-Mid 4th (c. 375-350 BCE)</td>
</tr>
<tr>
<td>Gortys</td>
<td>Acropolis</td>
<td>Trapezoidal</td>
<td>Mudbrick</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Halous</td>
<td>Acropolis</td>
<td>Coursed Polygonal</td>
<td>Mudbrick</td>
<td>Early-Mid 4th (400-350 BCE)</td>
</tr>
<tr>
<td>Kleitor</td>
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<td>Mudbrick</td>
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<td>Mudbrick</td>
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</tr>
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<td>Mudbrick</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Nestane</td>
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<td>Mudbrick</td>
<td>Early 4th (c. 370 BCE)</td>
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<td>Orchomenos</td>
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<td>Mudbrick</td>
<td>Mid 4th (c. 375-325 BCE)</td>
</tr>
<tr>
<td>Paos</td>
<td>Acropolis</td>
<td>Coursed Polygonal</td>
<td>Mudbrick</td>
<td>Late 5th-Early 4th (c. 425-375 BCE)</td>
</tr>
<tr>
<td>Pheneos</td>
<td>Acropolis</td>
<td>Coursed Polygonal</td>
<td>Mudbrick</td>
<td>Early-Mid 4th (400-350 BCE)</td>
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<td>Symphalos</td>
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<td>Early 4th (c. 370 BCE)</td>
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<tr>
<td>Thebais</td>
<td>Acropolis</td>
<td>Trapezoidal</td>
<td>Mudbrick</td>
<td>Early 4th-Late 3rd (c. 370-200 BCE)</td>
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<tr>
<td>Theisoa (Karkalou)</td>
<td>Acropolis</td>
<td>Trapezoidal</td>
<td>Mudbrick</td>
<td>Late 3rd (c. 250-200 BCE)</td>
</tr>
<tr>
<td>Theisoa (Lavda)</td>
<td>Acropolis</td>
<td>Coursed Polygonal</td>
<td>Mudbrick</td>
<td>Late 4th-Early 3rd (325-275 BCE)</td>
</tr>
</tbody>
</table>

Table 9.2. Architectural Data: Masonry and Superstructure
Theisoa [Karkalou, Teuthis). Since one person may see coursed trapezoidal with the occasional polygonal block, another might see polygonal with the occasional trapezoidal block. A binary division between polygonal and trapezoidal is, therefore, the most representative way to separate the types of masonry in a way that is not subjective or arbitrary.

Fig. 9.4. Distribution of fortified Arkadian poleis explored in this study by type of masonry: Yellow = predominately polygonal; Blue = predominantly trapezoidal
The total frequencies of sites with predominately polygonal versus predominately trapezoidal masonry are 13 and seven respectively, or roughly 65 and 35% [Fig. 9.4].\textsuperscript{1875} These frequencies clearly demonstrate that in terms of masonry style alone, polygonal masonry is the predominate type employed in the fortifications of Arkadian poleis. Moreover, when those walls with an uncertain date or a chronology derived from only the masonry style are removed,\textsuperscript{1876} 16 sites remain. With 11 examples of polygonal walls (70%) and five with trapezoidal (30%), these numbers establish the same general predilection for polygonal over trapezoidal masonry. When the type of masonry employed in these 16 sites is compared to the date of the circuits’ construction, interesting and significant patterns emerge. First of all, we see that 11 of the 16 sites have walls dated between the late fifth and early fourth century BCE, of which eight were built in a polygonal style and three in a trapezoidal style. In the more inclusive chronological frame of the first three quarters of the fourth century BCE, we see two polygonal and one trapezoidal example. Finally, of the two walls which date between the late fourth and early third century BCE, one was built in a polygonal style, the other in a trapezoidal style. This analysis tells us two important things. First, this breakdown confirms the problems of relying solely on masonry style to establish a date for a circuit, as it demonstrates that both polygonal and trapezoidal styles were used throughout the fourth century BCE (if not longer). Second, it demonstrates that the polygonal style decreased in popularity from its peak in the early fourth century BCE, slowly giving way to the trapezoidal. This shifting trend in masonry styles is perhaps best explained by the fact

\textsuperscript{1875} Including the pre-385 BCE polygonal walls of Mantinea, but not later repairs or modifications, both of which are discussed below.

\textsuperscript{1876} I.e, Mantinea [pre-385 BCE circuit], Dipaia, Theisoa [Karkalou], and Teuthis.
that trapezoidal curtains could be constructed faster, cheaper, and more easily, while still retaining something of the effect and the strength of polygonal work.\footnote{Winter (1971a:86-87).}

When the masonry style of the curtains is compared to the type of fortification, we see the same preference (at the same general ratio) for polygonal over trapezoidal in the construction of both acropolis- and uneven-type circuits. For example, of the 11 acropolis circuits, seven were built with polygonal blocks (65%) and four with trapezoidal (35%), and in the uneven-type of fortifications, we see five examples of polygonal (70%) and two of trapezoidal (30%). The circuit at Mantineia – the only example of a horizontal-type – had both styles: the pre-385 BCE wall was polygonal, while the ca. 370 BCE wall was trapezoidal. An interesting pattern that emerges is the recognition that all of the uneven-type circuits erected in the early fourth century BCE were built with polygonal style masonry (Alea, Asea, Megalopolis, Stymphalos).

Furthermore, it is interesting to consider that the only two acropolis-type circuits to employ trapezoidal masonry were Theisoa (Karkalou) and Teuthis. Separated by only 8 km, that these two acropolis sites alone used trapezoidal blocks may not be a coincidence.

Indeed, an examination of the spatial distribution of the different masonry styles brings to light a number of interesting patterns. Proximity appears to have played a role in the type of masonry employed since the territory of every polis with polygonal masonry lies immediately adjacent to the territory of another polis with the same (see Fig. 9.4). In other words, there are no isolated examples of polygonal masonry in Arkadia and all examples lie within close proximity to other examples in the style. This relationship between geographic location and polygonal style is represented by the extremely short
distances between Mantinea (pre-385 BCE circuit) and Nestane, between Nestane and Alea, between Alea and Stymphalos, between Phigaleia and Alipheira, between Alipheira and Theisoa (Lavda), between Megalopolis and Asea, and between Paos and Halous. The same pattern is demonstrable for the sites using predominately trapezoidal masonry. Thus we see sites in close proximity using the same trapezoidal style, such as Orchomenos and Mantinea, Kleitor and Psophis, as well as Gortys, Teuthis, and Theisoa (Karkalou). Finally, it should come as no surprise to discover that the only other style of masonry used anywhere in Arkadia, dry rubble masonry, also fits this pattern of distribution. Only two examples of curtains in this style exist – at Gortys and Megalopolis – both of which appear to represent later repairs to the original circuits. As the original walls at Gortys were trapezoidal and those at Megalopolis were polygonal, it is clear that dry rubble style was used indiscriminately with regard to the original type of masonry – likely because it was the fastest and cheapest way to make repairs.

Our understanding of construction techniques and appreciation of any characteristics shared by the different circuits are severely limited by the preservation of the extant remains themselves. Still, some general observations and probable deductions can be made based on what does survive. The majority of circuits appear to have been constructed with the typical double facing of blocks with a core in between comprised largely of rubble and packed earth. It was also common to leave the interior facings of the blocks in a rough state to better adhere to the core inside. Moreover, if Alea and Nestane are representative, then we might expect the other Arkadian fortifications to have employed relatively smaller blocks for the interior facing wall. The walls at Gortys provide the exception that proves these general rules. The eastern wall of Gate B at
Gortys, for example, did not have the usual rubble filling between the faces, but was instead comprised of a solid core of tightly packed blocks. Furthermore, while the rest of the curtains in the circuit did possess a rubble core, they also possessed a backing revetment of small stones stacked vertically between the facings and the fill. While this treatment of the core is seemingly unique, because of the advantages it affords concerning internal cohesion and strength “although the ruins give no visible indication…the system found at Gortys should, hypothetically, have been much used [at other sites].”\textsuperscript{1878}

The range provided by the thicknesses of the curtains among the different circuits is so broad as to be of little value in any larger synthesis. Still, while some walls are less than 1.50 m thick and others exceed 4.50 m, in general, curtains between 3 and 4 m thick were common. The problem is exacerbated by the presence of thin walls (less than 1.50 m) among unexcavated and/or poorly preserved circuits because it is not always clear whether they represent the total thickness of the wall or only half (i.e., one of originally two facings). If the former is the case, it could be argued that the thin walls of Megalopolis, the so-called ‘South Fort’ at Gortys, and of Theisoa (Karkalou) may be representative of a third century BCE trend toward thinner walls. On the other hand, it could equally be argued that as the thin walls of Megalopolis and Gortys were repairs to the original circuit, that economy and speed was the reason behind their slimness. The nature of the surviving remains similarly hinders an accurate assessment of the original heights of the foundations. From what does remain, however, it appears that the stone

\textsuperscript{1878} Lawrence (1972:217).
foundations across the different sites vary considerably in height, ranging from a couple of courses (less than 1 m) high to numerous courses reaching almost 4 m.

Only curtains from two sites representing clearly defined examples of the indented trace have been discovered – Gortys and Theiso (Lavda). Although the example at Theisoa (Lavda) is short and consists of only a few jogs, like the NNE and WSW walls at Gortys, it is representative of the fully developed form. The defensive advantages in terms of enfilading as well as the architectural benefits of the indented trace with regards to the navigation of steep slopes have been discussed already. While the existence of only two attested examples precludes any larger appreciation of the role of the indented trace in Arkadian fortifications in general, if nothing else, the proximity between these two sites does warrant brief mention. Separated by the Alpheios and only 8 km (as the crow flies), Gortys and Theisoa (Lavda) were the respective poleis closest to each other. Because the original indented trace at Gortys (both on the NNE and WSW sides) appears to have been constructed in the early fourth century BCE, while that at Theisoa (Lavda) was a product of the late fourth/early third century BCE, it is likely that the latter was influenced by the former. Indeed, as both poleis were members of the Arkadian League,\(^1\) it seems inconceivable that Theisoan architects would be unfamiliar with the form and layout of the circuit at nearby Gortys.

Although they varied in height, masonry style, and thickness, the foundations had one thing in common. Indeed, it is clear that the superstructure of all of the fortifications in Arkadia were comprised of mudbrick – even at those sites like Alea, Gortys, Nestane, Stymphalos, and Theisoa (Lavda), where the stone foundations approached 4 m in

\(^{1}\) Both were also voted to participate in the synoikism of Megalopolis, although, as mentioned, this seems to have been a decision only implemented in the case of Theisoa (Lavda).
Mudbrick does not survive, of course, so reconstructing the upper elevations of the walls is more difficult. It is reasonable to suppose that the thinnest walls, those less than 2 m in width, may have been widened at the level of the parodos by wooden scaffolding (ikria), as Winter proposes for the walls of Gortys’ ‘South Fort’. As for battlements, again we must look to Gortys, where Martin discovered a fragment of a stone crenellation. If this fragment – the only surviving example of a parapet from anywhere in Arkadia – is representative of other fortifications, then we may assume that they presented a crenellated battlement, not unlike Messene (even if in mudbrick rather than stone) – with which so many of the Arkadian sites appear to be contemporary. Similarly, in light of the established chronology, the use of fully developed Hellenistic epalxis seems less likely.

9.4.2 Towers

It has been established that on the Greek mainland, towers were employed sparingly and generally unsystematically until around the time of the Peloponnesian War at which time their manifold possibilities began to be appreciated and consequently became regular features of most circuits. This development accelerated with the introduction of the catapult. Although originally developed as offensive weapons to be employed in the siege of a city, the true defensive enfilading potential of catapults was soon realized and Greek fortifications responded accordingly. Thus, by the early fourth century BCE, the tower represented the greatest and most versatile tactical constituent of

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1880 The one possible exception is Phigaleia, which may have had a stone wall to the height of the parodos, presumably surmounted with battlements and upper tower chambers of mudbrick.
1881 Winter (1971a:147).
a fortification circuit. This statement certainly holds true in Arkadia, confirmed by the patterns established by an examination of the different shapes, distribution, style of masonry employed, spacing, and construction of the towers from the various fortified poleis [Table 9.3].

As previously voiced, from the Archaic through the Hellenistic period, the towers of the fortifications in mainland Greece display a fairly steady and logical development in deployment and function, but not in the one place where we might most expect it: their ground plan. Although, there appears to be no “reasonable and logical pattern of development” concerning tower shape, as noted by Winter, there are still patterns that are observable when the frequencies of the circuits employing the different shapes of towers are compared with relevant variables. Three tower shapes are attested in the

<table>
<thead>
<tr>
<th>Arkadian Poleis</th>
<th>Fortification Type</th>
<th>Tower Shapes Present</th>
<th>Tower Spacing</th>
<th>First Building Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alee</td>
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<td>Rectangular</td>
<td>Regular</td>
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<td>Strategic</td>
<td>Late 5th (c. 415-400 BCE)</td>
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<td>Strategic</td>
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<tr>
<td>Dipaia</td>
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<td>Unknown</td>
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<td>Strategic</td>
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<td>Regular</td>
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<td>Rectangular SemiCirc</td>
<td>Regular</td>
<td>Late 4th-Early 3rd (325-275 BCE)</td>
</tr>
</tbody>
</table>

Table 9.3. Architectural Data: Tower Shapes and Spacing

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fortifications of Arkadia: rectangular, semicircular, and hexagonal. While rectangular and semicircular comprise the majority of the examples, only two hexagonal towers are known, one at Mantinea, another at Stymphalos. Of the 18 circuits with attested examples of towers, only Kleitor possessed all semicircular examples.\textsuperscript{1885} The rest of the sites can be divided into two groups: those with only rectangular towers, and those that used both rectangular and semicircular towers. Split almost down the middle, we see seven sites belonging to the former category (Paos, Theisoa [Karkalou], Orchomenos, Teuthis, Alipheira, Alea, Psophis), and ten to the latter (Stymphalos, Asea, Psophis, Megalopolis, Mantinea, Gortys, Pheneos, Nestane, Theisoa [Lavda], Halous).

A closer look at these frequencies establish important functional and chronological patterns. For example, of the seven sites employing rectangular towers only, five of them are acropolis-type fortifications (Paos, Theisoa [Karkalou], Orchomenos, Teuthis, Alipheira) and only two have uneven-type circuits (Alea, Psophis). On the other hand, the sites using both rectangular and semicircular towers are more evenly distributed by fortification type, and include four uneven-type circuits (Stymphalos, Asea, Psophis, Megalopolis), five of the acropolis-type (Gortys, Pheneos, Nestane, Theisoa [Lavda], Halous), and one horizontal-type (Mantinea). This pattern suggests that in general, circuits with only rectangular shaped towers were preferred for the smaller acropolis circuits, while the larger uneven and horizontal sites preferred to employ towers of both shapes. The different form and function of acropolis and uneven circuits perhaps explain this pattern. That is, the $180^\circ$ view afforded by semicircular towers may have been in greater demand on uneven sites since they could be approached.

\textsuperscript{1885} With no confidently attested examples, Dipaia is excluded from the present discussion.
from a number of directions. Conversely, it is possible that because acropolis sites are
typically characterized by a more limited approach, they could afford the strategic
placement of solely rectangular towers. Still, it is not impossible that such a functional
distribution is largely a coincidental consequence of the larger chronological pattern or
local taste.

When the types of tower shapes employed are considered with an eye to the date
of their construction, a striking association is immediately discernable. For instance, the
frequency of sites using only rectangular towers by the date of the circuit reveals one site
dating to the late fifth century BCE (Alipheira), three to the late fifth or early fourth
century BCE (Paos, Psophis, Alea), one site to the second two quarters of the fourth
century BCE (Orchomenos), one to the third century BCE (Theisoa [Karkalou]), and one
conceivably dating to either the fourth or third century BCE (Teuthis). Of those sites
incorporating both tower shapes in their circuit, one belongs to the late fifth/early fourth
century BCE (Phigaleia), six are firmly early fourth century BCE (Stymphalos, Gortys,
Asea, Megalopolis, Nestane, Mantineia), two are possibly of the early fourth century
BCE but certainly of the first half of the fourth century BCE (Halous, Pheneos), and one
is of the late fourth/early third century BCE (Theisoa [Lavda]). This chronological
dissection establishes two significant patterns. First, while the use of only rectangular
towers can be traced from the fifth through third centuries BCE, it generally appears to be
an early phenomenon, most apparent in the late fifth and early years of the fourth century
BCE. Second, while the use of semicircular towers was not unknown earlier, the
explosion of fortification building that occurred in early fourth century BCE Arkadia was
characterized by their widespread use and deployment alongside the traditional rectangular shaped towers.

When the tower shapes are evaluated by their style of masonry, we see further associations. In the circuits possessing only rectangular towers, the type of masonry employed is evenly divided with three polygonal (Paos, Alipheira, Alea) and four trapezoidal (Theisoa [Karkalou], Orchomenos, Teuthis, Psophis). The circuits employing both tower shapes tell a markedly different story. Indeed, of the nine types of circuits employing rectangular and semicircular towers, seven were constructed in the polygonal style (Stymphalos, Asea, Megalopolis, Pheneos, Nestane, Theisoa [Lavda], Halous), and only two in the trapezoidal (Gortys, Mantineia). Other considerations based on the construction of the towers are limited by the same factors of preservation affecting the curtains. Thus, in only a few cases is it possible to determine which circuits possessed towers bonded to the curtains, which had ground storey chambers, and which were accessible through posterns in their flanks. The known examples of these features comprise a sample too small to be certain whether they are architectural traits truly representative of Arkadian fortifications in general. The preservation of the towers, however, does permit an appreciation of the tactics envisioned in their relative spacing, from which larger conclusions may be drawn.

The method of tower spacing employed in the different circuits can be broadly categorized as representing either strategic or regular spacing. Strategic spacing is here defined as those cases where the deployment of towers is limited largely to the most vulnerable points of the circuit, while regular spacing denotes the more or less systematic distribution of towers at regular intervals throughout the circuit. Of course, as a proper
distinction between these two categories requires the survival of three or more towers in succession, the fortifications whose remains do not meet this condition are excluded from the following discussion.\textsuperscript{1886} There are 16 sites, however, which do meet this requirement,\textsuperscript{1887} eight of which have regularly spaced towers (Orchomenos, Mantinea, Alea, Stymphalos, Pheneos, Theisoa \cite{Lavda}, Asea \cite{lower city circuit}, Halous) and an equal number with towers displaying strategic spacing (Phigaleia, Gortys, Nestane, Kleitor, Psophis, Alipheira, Asea \cite{acropolis circuit}, Paos).

The overall frequency is not the only similarity shared between these two categories. For example, when the type of fortification is considered, we see that the eight circuits with regular spaced towers include four acropolis-type circuits (Orchomenos, Pheneos, Halous, Theisoa \cite{Lavda}), three uneven (Stymphalos, Alea, Asea), and one horizontal-type site (Mantineia). This pattern is mirrored almost exactly in the sites with strategically spaced towers, which include four acropolis-type (Gortys, Paos, Nestane, Alipheira) and four uneven-type of fortifications (Phigaleia, Kleitor, Psophis, Asea).

Furthermore, when the shape of the tower is considered, again there is little difference in regard to the type of spacing exhibited by the towers. Thus, of the eight circuits with regularly spaced towers, three contain only rectangular towers (Orchomenos, Alea, Theisoa \cite{Lavda}) and five possess both rectangular and semicircular \cite{Mantineia, Stymphalos, Pheneos, Asea \cite{lower city circuit}, Halous}. Similarly, of the eight circuits with strategically placed towers, we see that four contain only rectangular towers (Paos, Psophis, Asea \cite{acropolis circuit}, Alipheira), one with only semicircular (Kleitor), and

\textsuperscript{1886} I.e., Megalopolis, Teuthis, Dipaia, and Theisoa \cite{Karkalou}.

\textsuperscript{1887} As the towers of Asea are strategically spaced on the acropolis and regularly spaced in the lower city circuit, it is counted twice – once for each category.
three possessing towers of both shapes (Phigaleia, Gortys, Nestane). While the circuits with regularly spaced and strategically spaced towers show almost no difference regarding frequency, fortification type, or the shape of the towers employed, there is one variable that distinctly sets these two categories apart.

When the chronology of the circuits is taken into consideration, a definite pattern emerges. The circuits with strategically spaced towers include one circuit dating to the late fifth century BCE (Alipheira), three belonging to the late fifth/early fourth century BCE (Psophis, Phigaleia, Paos), three to the early fourth century BCE (Gortys, Asea [acropolis circuit], Nestane), and only one to the late fourth/early third century BCE (Kleitor). On the other hand, the circuits with towers deployed at regular intervals include three erected in the early fourth century BCE (Mantineia, Alea, Stymphalos), two from the first half of fourth century BCE (Pheneos, Halous), one example from the middle two quarters of the fourth century BCE (Orchomenos), as well as two built in the late fourth/early third century BCE (Theisoa [Lavda], Asea [lower city circuit]). This data suggests that the strategic placement of towers appears to be largely a phenomenon beginning in the late fifth/early fourth century BCE, after which time the regular spacing of towers becomes the general rule. The change in this trend must correspond to the invention and development of artillery.

In the late fifth/early fourth century BCE, before the invention of the catapult, siege craft was limited to mines and rams, which, dictated by the terrain, could only be brought against certain parts of a circuit. In the rugged terrain of Arkadia, a minimal number of towers strategically placed to protect the main approach, the gate(s), and or the especially vulnerable areas would have provided sufficient protection – and the natural
defenses would have done the rest. Besides the continued use and development of both mines and rams, circuits of the early fourth century BCE had to respond accordingly to the threat posed by the invention, development (tension to torsion), and dissemination of the catapult. Because of the distances the catapult was capable of reaching, most parts of the circuit were now vulnerable, and no part of the circuit could be trusted to the natural defenses alone. Furthermore, as the larger uneven and horizontal type circuits appear at this time, most of which incorporate a substantial amount of flat terrain, an array of regularly spaced towers was an absolutely essential defensive necessity, since a hostile approach could come from any direction.

Defense in the circuits with regularly spaced towers was never sacrificed for uniformity or symmetry. Like earlier examples with strategically situated towers, although regularly deployed, care was still taken to provide cover at gates, to incorporate high ground whenever possible, and to generally provide cover for the more vulnerable parts, especially places where an enemy force might mass and launch an assault on the walls. Generally during the early fourth century BCE, the distance between the towers when regularly spaced is around 25-30 m (Alea, Orchomenos, Mantineia, Pheneos, Stymphalos, Halous). Interestingly, at Theisoa (Lavda), the one example displaying regular spacing from the late fourth/early third century BCE, we find the towers deployed approximately every 60-70 m. The reason for such a relatively wide spacing, presumably, lies in the fact that fewer towers were needed because the artillery machines could cover the space between.

What can be said about the relationship between tower size and artillery appears to conform to Ober’s chronological distinctions between first and second generation
artillery towers. As the vast majority of the Arkadian fortifications date to the first half of the fourth century BCE, it is not surprising that most of the towers are of the first generation type – designed to house the smaller rudimentary (tension) artillery machines. The years after ca. 325 BCE, however, witnessed the introduction of second generation towers. Generally larger, higher, and with thicker walls, these towers not only aimed to counteract the offensive threat that accompanied the introduction of the much improved torsion catapult, but to provide the strength and stability required in the towers themselves to support the defensive use of the same machines (i.e., the recoil). Although limited by the general degree of preservation, a number of second generation towers are demonstrated in Arkadia. All of the semicircular towers in the circuit of Kleitor, all of the rectangular towers from Theisoa (Lavda), and possibly the large rectangular tower west of the ramp gate at Theisoa (Karkalou) are examples of this type of tower, designed to house large artillery machines. To keep pace with the new technological advances, circuits that were built in the early fourth century BCE – before the widespread use of artillery – were forced to compensate for any inadequacies or obsolete elements in their defensive systems. Thus we see first generation towers modified to meet the new offensive threat posed by the torsion catapult. This is best documented at Stymphalos, where excavations have revealed three first generation towers of the original circuit that were rebuilt (after destruction) in the late fourth or early third century BCE. Atop the highest point on the Stymphalian acropolis a large rectangular bastion was one of these new structures. Measuring 21 m long by 11 m wide, this bastion has a remarkably similar parallel at nearby Alea, which possessed a similarly shaped bastion, also on the highest

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point of the hill, and measuring a comparable 23 x 8 m. These physical similarities, not to mention the extremely close proximity of the two sites, suggest that the bastion at Alea is also a second generation tower, likely dating to the late fourth or early third century BCE.

9.4.3 Gateways

Owing to the same problems of preservation affecting the other components of the fortifications, of the 19 fortified sites in this study, only 11 of them have attested or extant remains of gateways (Alea, Dipaia, Gortys, Kleitor, Paos, Stymphalos, Theisoa [Lavda], Nestane, Asea [acropolis circuit], Theisoa [Karkalou], Mantinea). Still, based on the relationship between the topography and what does remain of the circuit, we can plausibly deduce the location and frequency of now vanished gateways at other sites, including Halous, Teuthis, and Alipheira. Similarly, the itinerary of Pausanias suggests that Megalopolis once had eight gates, even if we can only speculate about their architectural forms and approximate locations. What is certain, however, is that the extant remains establish that the Arkadian poleis employed four main types of gates in their fortifications: the simple opening or axial type gate, the overlap type gate, the ramp gate, and/or the monumental gatecourt type [Table 9.4]. In terms of overall frequencies, we see seven circuits with axial gates (Alea, Dipaia, Gortys, Kleitor, Stymphalos, Theisoa [Lavda], Paos), three with overlap gates (Mantineia, Nestane, Stymphalos), three possessing a monumental gatecourt (Kleitor, Mantineia, Stymphalos), and three which include an example of a ‘ramp’ gate (Asea, Stymphalos, Theisoa [Karkalou]). A close

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1889 Because Mantinea, Stymphalos, and Kleitor all possessed several of these gate types, they appear more than once in the following discussion.
examination of the form, function, and chronology of these different types brings to light a number of interesting relationships.

<table>
<thead>
<tr>
<th>Arkadian Poileis</th>
<th>Fortification Type</th>
<th>Gate Types Present</th>
<th>Number of Gates</th>
<th>First Building Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alphea</td>
<td>Acropolis</td>
<td>Axial Type</td>
<td>1</td>
<td>Early 5th (c. 425-400 BCE)</td>
</tr>
<tr>
<td>Alleyra</td>
<td>Acropolis</td>
<td>Axial Types (?)</td>
<td>2 (?)</td>
<td>Late 5th (c. 425-400 BCE)</td>
</tr>
<tr>
<td>Assia</td>
<td>Unidentified</td>
<td>Ramp Type</td>
<td>1</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Dipaia</td>
<td>Acropolis</td>
<td>Axial Type</td>
<td>1</td>
<td>Early-Mid 4th (c. 375-350 BCE)</td>
</tr>
<tr>
<td>Gortys</td>
<td>Acropolis</td>
<td>Axial Types</td>
<td>3</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Haleaus</td>
<td>Acropolis</td>
<td>Axial Type (?)</td>
<td>1 (?)</td>
<td>Early-Mid 4th (400-330 BCE)</td>
</tr>
<tr>
<td>Kleitor</td>
<td>Unidentified</td>
<td>Axial Type, Gatecourt</td>
<td>2</td>
<td>Late 4th-Early 3rd (325-275 BCE)</td>
</tr>
<tr>
<td>Mantineia</td>
<td>Horizontal</td>
<td>Overlap Types, Gatecourt</td>
<td>10</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Megalopolis</td>
<td>Unidentified</td>
<td>Unknown</td>
<td>8 (?)</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Nestane</td>
<td>Acropolis</td>
<td>Overlap Type</td>
<td>1</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Orchomenos</td>
<td>Acropolis</td>
<td>Axial Type, Overlap Type (?)</td>
<td>2 (?)</td>
<td>Mid 4th (c. 375-325 BCE)</td>
</tr>
<tr>
<td>Paos</td>
<td>Acropolis</td>
<td>Axial Type</td>
<td>1</td>
<td>Late 5th-Early 4th (c. 425-375 BCE)</td>
</tr>
<tr>
<td>Pheneos</td>
<td>Acropolis</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Early-Mid 4th (400-330 BCE)</td>
</tr>
<tr>
<td>Phigilia</td>
<td>Unidentified</td>
<td>Unknown</td>
<td>2 (?)</td>
<td>Late 5th-Early 4th (c. 425-375 BCE)</td>
</tr>
<tr>
<td>Priphlis</td>
<td>Unidentified</td>
<td>Unknown</td>
<td>2 (?)</td>
<td>Late 5th-Early 4th (c. 425-375 BCE)</td>
</tr>
<tr>
<td>Symphalos</td>
<td>Unidentified</td>
<td>Axial, Overlap, Ramp, Gatecourt</td>
<td>7</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Teuthis</td>
<td>Acropolis</td>
<td>Unknown</td>
<td>2 (?)</td>
<td>Early 4th-Late 3rd (c. 370-200 BCE)</td>
</tr>
<tr>
<td>Theisoa (Kerkalou)</td>
<td>Acropolis</td>
<td>Ramp Type</td>
<td>1</td>
<td>Late 3rd (c. 250-200 BCE)</td>
</tr>
<tr>
<td>Theisoa (Lavda)</td>
<td>Acropolis</td>
<td>Axial (?), Overlap Type</td>
<td>3 (?)</td>
<td>Late 4th-Early 3rd (325-275 BCE)</td>
</tr>
</tbody>
</table>

Table 9.4. Architectural Data: Gates

As noted, the circuits of seven sites possess examples of simple opening or axial type gates. Often referred to as Type 1 gates, they are characterized by “an opening in a continuous (though not necessarily straight) stretch of wall, with the approaches guarded by a projecting tower or bastion on one or both sides.”\(^{1890}\) As functional and practical portals, it is not surprising to see these types represented from the late fifth to the late third century BCE. Specifically, they are attested in circuits of the late fifth/early fourth century BCE (Paos), the early fourth century BCE (Alea, Gortys, Symphalos), the second quarter of the fourth century BCE (Dipaia), and the late fourth/early third century BCE (Theisoa [Lavda], Kleitor). Similarly, as the most basic form of opening in the wall,

\(^{1890}\) Winter (1971a:208).
examples are relatively equally represented in both acropolis-type (Paos, Gortys, Theisoa [Lavda], Dipaia) and uneven-type circuits (Alea, Stymphalos, Kleitor). The most interesting pattern that emerges is the style of masonry employed. Although perhaps biased by the preserved remains, it is still interesting to note that five of the seven circuits with axial type gates were constructed in polygonal style masonry (all except Kleitor and Gortys). Any opening in the curtain is a potential weak spot in the circuit and thus, by their very form axial gates represent the most vulnerable part in the system. In addition to providing the usual towers on the flanks to protect the openings, perhaps polygonal masonry was preferred for its rugged appearance that gave the impression of strength. Such concern is clearly evident even in the predominately trapezoidal masonry employed in the construction of Gate B at Gortys, where the blocks are significantly larger than in any other part of the circuit.

Overlap, or Type 2 gates, are comprised of “an entrance corridor lying between two overlapping and more or less parallel arms of a wall,” often with a tower at the end. Despite the apparently strong and sound defensive outlook inherent in their general plan, examples of overlap type gates are limited to the circuits of only three poleis (Mantineia, Nestane, Stymphalos). There appears to be no difference in the type of site in which overlap gates are found, since they are equally represented across acropolis, horizontal, and uneven type of circuits. There is, on the other hand, an unmistakable correlation between both the geographical distribution and chronological frame of this type of gate. With examples at Mantineia, Nestane, and Stymphalos, the use of the

1891 The South Gate at Theisoa (Lavda), while technically of the overlap type does not have long parallel stretches of wall and thus resembles more the frontal type of gate.

1892 Ibid.
overlap gate appears to have been exclusively a northeastern Arkadian phenomenon. Similarly, it also cannot be a coincidence that all of these gates belong to circuits erected in the early fourth century – most likely in the years around ca. 370 B.C.E. Although not conclusive, it is possible that Orchomenos too may have had an example of an overlap gate. If so, because of its location and date, the Orchomenos circuit would fit the same chronological and geographical pattern exhibited by the distribution of the other attested examples.

Like the use of overlap gates, the gatecourt type of gate is also limited to only three sites, all concentrated in northeastern Arkadia. These include the so-called Gate A from Mantinea, the West Gate at Kleitor, and the Phlius Gate at Stymphalos. The parallels in both form and function between these gates and the Arkadian Gate at Messene are clear and have been commented upon by others. Briefly, they are characterized by their monumental size, their plans comprised a round or rectangular court accessed by a small opening at either end and protected by towers, and that they were all laid out on completely flat terrain. Constructed around ca. 370 B.C.E, Gate A from Mantinea represents the earliest of the Arkadian gatecourts, while the examples from both Stymphalos and Kleitor examples appear to date to the late fourth/early third century B.C.E – contemporary with Messene’s Arkadian Gate. Chronologically, therefore, the Arkadian examples conform to what has been generally established for this

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1893 E.g., Frazer (1898:4.204); Fougères (1898:153); Winter (1971a:217); Gourley and Williams (2005:232-33).
1894 Scranton (1941:128-29).
type, namely that they increased in popularity after their appearance in the fourth century BCE (especially the 360s onward).\footnote{Winter (1971a:219).}

As Mantinea, Stymphalos, and Kleitor are among the largest Arkadian settlements (and circuits), and since only a single example of this gate is found at each site, we might suppose that such costly and monumental gates would have been limited to one per circuit in the fortifications of only the most affluent poleis – perhaps in the future examples will be found at the comparable sites of Tegea, Megalopolis, or Heraia. In any case, although it easy to get lost in the relative splendor and monumentality of these gates, it is important to remember that like all the constituent parts of a circuit, aesthetic concerns were secondary to defensive interests. Thus we see that the form and development of the gatecourt is directly related to the history of siegecraft, specifically from the fourth century BCE onward. Indeed, as their popularity coincides with the regular use of offensive artillery and the increasing use of both mines and rams, as Winter notes, “it is certainly tempting to connect the two developments, and to suppose that it was the increasing threat of mines and artillery that led to the new popularity of the courtyard type of gate.”\footnote{Ibid.}

Finally, of the last type, the ‘ramp’ gate, there are three circuits with known examples (Asea [acropolis circuit], Theisoa [Karkalou], Stymphalos). As a largely practical device directly related to the local topography, there are few discernable chronological or geographical patterns associated with their occurrence. For example, they are attested in southern, northern, and central Arkadia at sites with both early fourth century and third century BCE circuits. The only real difference among these types

\footnotesize{\textsuperscript{1895} Winter (1971a:219). \textsuperscript{1896} Ibid.}\normalsize
perhaps relates to their primary function. The ramp gate at Stymphalos, for example, was a secondary entranceway, providing access for primarily wheeled traffic to the acropolis directly from the extramural area. The ramp gate on the acropolis at Asea may have provided a similar function, although it provided access directly from the intramural area of the lower city. The ramp gate at Theisoa (Karkalou), however, appears to have been the only gate in the entire circuit, providing access to the acropolis from the (unfortified) settlement located on the saddle to the south.

When considered collectively, it appears that in general, the acropolis-type circuits are characterized by their almost exclusive use of the frontal type gate. Uneven and horizontal sites, however, display much greater variability. When it comes to the type of gates used in their circuits, it is not uncommon to find two, three, or even all four of the different types of gates represented. This pattern is obvious at the majority of sites where more than one gate survives in the circuit. The fortifications at Mantinea, for instance, include both the gatecourt and overlap types; Kleitor possesses frontal and gatecourt types; while Stymphalos can boast examples of frontal, overlap, gatecourt, and ramp types. It appears, therefore, that very few of the larger circuits possessing more than one gate relied solely on a single type. Even at Gortys, where all three gates are technically of the frontal type, we see that the funnel-shaped Gate B is markedly different in form than Gates A and C. Theisoa (Lavda) too, possessed at least one overlap gate and possibly two frontal gates.1897

1897 See n.1891 above.
9.4.4 Posterns and Outworks

Nowhere is the present analysis more limited by the preservation of the remains than regarding the question of whether or not a circuit possessed posterns.\textsuperscript{1898} Determining their presence not only requires a thorough investigation of the entire circuit, but that the trace of the fortifications in question survives more or less in totality. And even when a postern can be confidently identified, without excavation or obvious signs of architectural alterations there is usually no way of determining whether said postern was original to the circuit or a later addition. Until evidence to the contrary is uncovered, therefore, perhaps in the course of future excavation, it is here assumed that all the posterns in question are contemporary with the circuits’ original phase of construction. Finally, a study of posterns must consider function, and a number of factors can help determine whether they had a primarily military function, intended for defensive sorties, or whether they were envisioned largely for use by civilians as a quick point of access to the \textit{chora}.

Of the 19 fortified sites in this study, only ten meet the criteria stated above as possessing a circuit whose outline can be traced more or less in its entirety [Table 9.5]. Of these ten sites, however, only six Arkadian \textit{poleis} had posterns in their curtains (Alea, Asea [acropolis circuit], Gortys, Phigaleia, Theisoa [Lavda], Stymphalos), while the fortifications of four settlements appear to have possessed none (Mantineia, Nestane, Orchomenos, Paos). There does seem to be a slight correlation between both the presence and absence of posterns and the type of fortification employed. For example, of those sites with posterns, four are examples of the uneven-type (Phigaleia, Alea, Asea,

\textsuperscript{1898} The following discussion pertains to posterns in the curtains only, not those in the flanks of towers.
Stymphalos) while only two are of the acropolis type (Gortys, Theisoa [Lavda]).

Conversely, we see that those sites without posterns are predominately of the acropolis-type (Paos, Orchomenos, Nestane), with three examples, while only one horizontal type site was without posterns (Mantineia).

<table>
<thead>
<tr>
<th>Arkadian Poleis</th>
<th>Fortification Type</th>
<th>Number of Posterns</th>
<th>First Building Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alea</td>
<td>Uneven</td>
<td>1</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Alipaheia</td>
<td>Acropolis</td>
<td>Unknown</td>
<td>Late 5th (c. 425-400 BCE)</td>
</tr>
<tr>
<td>Asea</td>
<td>Uneven</td>
<td>2</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Dipas</td>
<td>Acropolis</td>
<td>Unknown</td>
<td>Early-Mid 4th (c. 375-350 BCE)</td>
</tr>
<tr>
<td>Gortys</td>
<td>Acropolis</td>
<td>4</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Halout</td>
<td>Acropolis</td>
<td>Unknown</td>
<td>Early-Mid 4th (400-350 BCE)</td>
</tr>
<tr>
<td>Kleitor</td>
<td>Uneven</td>
<td>Unknown</td>
<td>Late 4th-Early 3rd (315-275 BCE)</td>
</tr>
<tr>
<td>Mantineia</td>
<td>Horizontal</td>
<td>0</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Megalopolis</td>
<td>Uneven</td>
<td>Unknown</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Nestane</td>
<td>Acropolis</td>
<td>0</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Orchomenos</td>
<td>Acropolis</td>
<td>0</td>
<td>Mid 4th (c. 375-325 BCE)</td>
</tr>
<tr>
<td>Paos</td>
<td>Acropolis</td>
<td>0</td>
<td>Late 5th-Early 4th (c. 425-375 BCE)</td>
</tr>
<tr>
<td>Pheneos</td>
<td>Acropolis</td>
<td>Unknown</td>
<td>Early-Mid 4th (400-350 BCE)</td>
</tr>
<tr>
<td>Phigaleia</td>
<td>Uneven</td>
<td>2</td>
<td>Late 5th-Early 4th (c. 425-375 BCE)</td>
</tr>
<tr>
<td>Psophis</td>
<td>Uneven</td>
<td>Unknown</td>
<td>Late 5th-Early 4th (c. 425-375 BCE)</td>
</tr>
<tr>
<td>Stymphalos</td>
<td>Uneven</td>
<td>1</td>
<td>Early 4th (c. 370 BCE)</td>
</tr>
<tr>
<td>Teuthis</td>
<td>Acropolis</td>
<td>Unknown</td>
<td>Early 4th-Late 3rd (c. 370-200 BCE)</td>
</tr>
<tr>
<td>Theisoa (Karkalou)</td>
<td>Acropolis</td>
<td>Unknown</td>
<td>Late 3rd (c. 250-200 BCE)</td>
</tr>
<tr>
<td>Theisoa (Lavda)</td>
<td>Acropolis</td>
<td>3</td>
<td>Late 4th-Early 3rd (325-275 BCE)</td>
</tr>
</tbody>
</table>

Table 9.5. Architectural Data: Posterns

There also appears to be a chronological relationship between the sites with attested examples of posterns. Indeed, we see that the vast majority of these circuits date to the early fourth century BCE (Stymphalos, Asea [acropolis circuit], Gortys, Alea), with only one late fifth/early fourth century BCE example (Phigaleia) and one late fourth/early third century BCE example (Theisoa [Lavda]) representing the limits of the chronological spectrum. On the other hand, there seems to be no correlation between chronology or type of fortification regarding those sites without posterns. Thus, we have examples from the late fifth/early fourth century BCE (Paos), the early fourth century.
BCE (Mantineia, Nestane), and the second and third quarter of the fourth century BCE (Orchomenos). When the total frequencies are considered chronologically, we see that in the late fifth/early fourth century BCE there is one site with posterns and one without; in the early fourth century BCE there are four sites with and two without; while in the middle fourth to late fourth/early third century BCE, there is one site with posterns, and one without.

Although the sample size is admittedly small, when the type of site and chronology are considered, the frequencies generally suggest that the use of posterns was most popular in Arkadia in the early fourth century BCE, primarily in the larger circuits characteristic of uneven-type fortifications (Stymphalos, Alea, Phigaleia, Asea), but also in the larger acropolis-type circuits (e.g., Gortys, Theisoa [Lavda]). While posterns in the flanks of towers made additional posterns in the curtains unnecessary at Mantineia, the absence of posterns at the other sites may be explained by their small size, function as an acropolis, and a local topography that limited the approaches to the summit (e.g., Nestane, Orchomenos, Paos). It is also interesting to consider the geographical distribution of the *poleis* with and without posterns. It might not be a coincidence, for instance, that with the exception of Stymphalos and Alea, all of the sites with posterns are concentrated in southwest Arkadia (Theisoa [Lavda], Phigaleia, Gortys, Asea). Similarly, with the exception of Paos, all the sites without posterns are to be found in northeast Arkadia (Nestane, Orchomenos, Mantineia).

The location of the posterns within the larger circuit, their frequency and proximity to each other, and the surrounding topography, all help to establish which posterns had a primarily military function and which were built for civilian means of
access. Phigaleia possessed two posterns, both located on the east side of the circuit between flanking towers. The fact that they were the only two posterns in an otherwise extensive circuit and were positioned where the concentration of towers was greatest, clearly demonstrates that these openings were envisioned primarily for defensive sorties at a part of the circuit that was considered vulnerable. This situation is mirrored at Gortys and on the acropolis of Asea, where the circuits’ posterns are placed close together, purposely where the concentration of towers was greatest and where the topography facilitated the approach – in other words, the most vulnerable parts of the circuit. The one attested postern at Stymphalos varies slightly from this pattern, but its position just outside the north overlap gate is curious, and suggests a military function. A postern placed just outside the gate would have permitted defenders to sally forth and attack the unshielded right and rear sides of any enemy occupying the area between the overlapping stretches of curtain in front of the gate.

On the other hand, the posterns at Alea, Theisoa (Lavda), and the one example on the northeast side of the circuit at Gortys appear to have been largely designed for simple access, rather than primarily defensive use. Not only are they all situated at the top of relatively steep slopes, where an attack would be less likely, but the postern at Alea was placed directly opposite the entrance to the citadel, and one from Theisoa (Lavda) was built directly into the wall of the citadel, which further suggests they must have been used primarily for access. Similarly, it is not a coincidence that the one example from Gortys is found on the northeast side of the circuit, where it could be reached by civilians from the main area of habitation directly below.
The detailed survey of fortified Arkadian poleis demonstrates that only Phigaleia and Mantineia possessed defensive outworks, and although both were man-made, they differ considerably in form and function. The defensive system at Phigaleia, as mentioned, employed both hypoteichismata (cross-walls) and proteichismata (outwalls). Two examples of the former are found – one running due north from the highest point of the site for a length of ca. 30-40 m, and the other stretching for ca. 165 m from the westernmost part of the circuit. One example of the latter was discovered – oriented north-south, and spanning a small ravine approximately 150 m west of the main circuit. Collectively, both of these types of outworks operated with the local topography to command the main routes to the city by actively dictating the possible approaches. At Mantineia we see something different. At the same time it was decided that the ca. 370 BCE city walls of Mantineia would follow the same course as the original, it was also determined to modify the course of the Ophis River, turning it into a defensive advantage rather than a liability. Thus in order to avoid a repeat of the disaster of 385 BCE, which saw the Spartans cleverly dam and redirect the course of the river against the walls – a feat made possible by its original course which ran through the city – the Ophis was now redirected to circumvent the city. Essentially functioning as a moat, the course of the river now provided several defensive advantages. It not only created a narrow strip of land between itself and the walls, taking away any numerical advantage held by an enemy by limiting the amount of space it could actually occupy, but it also worked to effectively keep an enemy at a distance from the walls. Carefully placed (and surely carefully protected) bridges, represented a further measure of controlling access to the city.
Although speculative, that the majority of Arkadian *poleis* did not have any outworks may be explained by the topography and perhaps the type of fortified site. The majority of the acropolis sites in Arkadia, for example, were small settlements in which the main area of habitation was unfortified and the acropolis functioned primarily as a refuge when required. These sites were chosen first and foremost based on defensive considerations, and man-made outworks would more often than not have been superfluous additions to an already strong local topography. Similarly, as demonstrated, the locations of even the larger, more exposed uneven circuits were chosen because of the natural defenses afforded by the local topography. Protected by one, or more often two watercourses, almost every single uneven-type of fortified site (and acropolis types for that matter), was already provided with a natural outwork, making further man-made outworks unnecessary.

### 9.4.5 Chronological Summary

**Late fifth/early fourth century BCE Patterns**

- Fortified sites limited to the western edge of Arkadia
- Sites incorporate substantial amount of high ground; protected by rivers on at least two sides
- Equal number of acropolis- and uneven-type sites
- Style of masonry is predominately coursed polygonal
- All sites employ strategic spacing of towers, predominately only rectangular; semicircular towers are rare
- Frontal or simple opening is only attested type of gate
- Posterns and outworks are rare

**Early fourth century BCE Patterns**

- New fortified sites found throughout Arkadia, especially in the south, east, and north
- Sites incorporate substantial amount of high ground as well as relatively flat terrain; protected by watercourse on at least one, but usually two sides
• Equal number of acropolis- and uneven-type sites; Mantinea only site laid out on completely flat terrain
• Style of masonry is predominately polygonal; more trapezoidal masonry than in previous period
• Sites begin to employ regular spacing of towers, especially when deployed over flat terrain; acropolis sites continue to use strategic spacing of towers; the combined use of rectangular and semicircular towers predominates; the use of only rectangular towers in a single circuit is rare
• Frontal or simple opening is the dominate type gate; overlap and gatecourt type gates appear at sites in northeast Arkadia, but still comparatively rare; ramp gates also appear
• Posterns become more common; outworks are rare

Late fourth/early third BCE century Patterns

• New fortified sites found in northern and western Arkadia; modifications made to circuits in northeastern Arkadia
• New sites incorporate substantial amount of high ground or relatively flat terrain; protected by rivers on two sides
• Equal number of acropolis- and uneven-type sites
• Both coursed polygonal and trapezoidal masonry used evenly; see only example of pure isodomic trapezoidal masonry
• Sites use both strategic and regular spacing of towers; see preference for only one tower type in the circuit, either all semicircular or all rectangular towers; towers become generally larger (second generation); greater distances between towers than in previous periods; see repairs/modifications of early fourth century BCE towers into large bastions
• Frontal or simple opening is the dominate type gate; both gatecourt and an overlap gate modified into a gatecourt appear in northern Arkadia
• Posterns are rare; outworks are not attested

Third century BCE Patterns

• New fortified site appears in central Arkadia; see fortification of existing lower city in southern Arkadia; repairs made to existing circuits in northern and southern Arkadia
• New site is acropolis-type, incorporating exclusively high ground; protected by river on one side; fortified lower city laid out on relatively flat terrain
• See use of both polygonal and trapezoidal masonry; repairs made to existing circuits employ predominately dry rubble masonry
• Sites use both strategic and regular spacing of towers; see preference for only one tower type in the circuit, either all semicircular or all rectangular towers; towers become generally larger (second generation)
• Only ramp gate attested in this period
• Posterns and outworks are not attested
9.5 Historical Probability

We are indeed fortunate in those rare cases where the precise year of a circuit’s construction is mentioned in the ancient sources; or when the date of repairs may be inferred from a recorded attack on the walls; or when excavation in particular can shed light on the chronology of a city wall. As mentioned, however, these are rare occurrences, especially where the fortified poleis of Arkadia are concerned. Thus, in the majority of the cases, it is necessary to establish relative chronologies using regional architectural affinities and historical probability. Accordingly, the use of ancient texts, excavation, regional comparanda, and historical probability, already employed above on an individual site level, have yielded chronologies for the circuits which are not only plausible, but indeed probable. With reliable chronologies established for the individual circuits, we are able to understand the polis and its walls within the larger regional and historical context. A late fourth/early third century BCE date for the upgrades made at Stymphalos and Alea, for example, as well as the large towers in the circuit at Kleitor, can be appreciated as defensive responses to the contemporary advances in siege warfare.

The relationship between technology and the architecture of the walls has been touched on already, both here and regarding fortifications elsewhere in the Greek world. But what of the larger and more predominant patterns outlined above which are observable in Arkadia specifically? Can historical probability, for instance, explain why the majority of Arkadian poleis threw walls around their settlement in the early fourth century BCE? And, can it provide an explanation for why these sites are located largely

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1899 E.g., Marsden (1969); Winter (1971a); Lawrence (1979); Adam (1982); Ober (1987); McNicholl (1997); Frederickson (2011).
in the northeast and south? Finally, can it clarify why many of the *poleis* that were voted to participate in synoikism appear not to have participated, and were instead actually fortified? To all of these questions, the answer is, I believe, yes. And what is more, the answers to all of these questions lie with the formation of the Arkadian League. In an effort to answer these questions under the umbrella of what is not only historically possible, but what is ultimately historically probable, the discussion that follows employs not mere speculation, but informed speculation, derived from the collective weight of the data presented in this study.

It cannot be a mere coincidence that of the total 19 sites in question, seven of them (Mantineia, Megalopolis, Nestane, Alea, Stymphalos, Gortys, Asea) belong securely to the early fourth century BCE, while the fortifications at a further seven sites (Phigaleia, Paos, Psophis, Halous, Pheneos, Dipaia, and Orchomenos) may also conceivably have been built at this time [Fig. 9.5]. The most probable historical catalyst for this sudden and widespread regional development is the foundation of the Arkadian League. The Spartan defeat at the Battle of Leuktra in 371 BCE not only saw an end to their centuries-old hegemony in the Peloponnese, but this event also had far-reaching consequences for the cities of Arkadia. In an effort to limit any future Spartan aggression, a confederation of Arkadian cities was established and Mantineia and Megalopolis came together in defensive consolidations. Besides providing local centralized habitation, the geographical position of these cities show that they also functioned as a system of fortresses. Including Messene and extending across the Peloponnese to the Argolid, these communities were fortified specifically to control the major routes from Lakonia into neighbouring Arkadia. Indeed, both the influence of Epaminondas and the *raison d’être*
behind the foundation of Megalopolis, Mantinea, and Messene are well-documented in the ancient historical record. But what of the other Arkadian poleis which were fortified at this time – were they part of some Arkadian and/or Theban defensive master plan, or did these cities simply seize the opportunity offered by the defeat of the Spartans at Leuktra to fortify their settlements? That all of the poleis fortified at this time – with the exception of Orchomenos – were original members of the Arkadian League, suggests the former and provides a crucial clue behind the observable pattern in the geographical distribution of these sites.

Stymphalos, Alea, Nestane, Asea, Gortys, and perhaps also Pheneos and Dipaia, were almost certainly part of the same overall defensive strategy envisioned with the foundation of Megalopolis and Mantinea. The geographic location of these cities, their recognized membership in the Arkadia Confederacy, the architectural affinities shared by their fortifications, and above all, the early fourth century BCE date of their walls add considerable support to this supposition. Furthermore, Xenophon tells us that “some of the Arkadian cities sent men to help the Mantineans in their building [of their fortification]” – such amity clearly suggests communal unity and purpose. Xenophon also adds that the Elians contributed three talents to the rebuilding of the Mantineian circuit, suggesting that they were allied with the Arkadians and united against their common enemy Sparta. While such an alliance may go a long way to explaining why the early fourth century BCE saw no new fortifications erected along the shared border in

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1900 For the argument against Theban involvement in resynoikism of Mantinea, see Demand (1990:109-110).
1901 Williams and Gourley (2005:219, n.10) briefly suggest this possibility for Stymphalos.
1902 Xen. Hell. 6.5.5.
1903 Ibid.
the west,¹⁹⁰⁴ it does not clarify why the proliferation of early fourth century BCE Arkadian fortifications was limited to the south and northeast; nor how this is to be reconciled with the fact that most of the poleis fortified at this time were voted to participate in the synoikism of Megalopolis.

Fig. 9.5. Distribution map of early 4th (or likely early 4th) century circuits (in yellow) showing concentration of sites around Orchomenos, Sparta, and Phlius (in red)

¹⁹⁰⁴ An alliance with Elis may also explain why Theisoa (Lavda) appears to be the only polis in this study that actually participated in the synoikism. In other words, without fear of incursion from the west, perhaps it was decided that Theisoa (Lavda) could be abandoned without compromising the larger defensive interests of the Arkadian League.
It is conceivable that in the rush to consolidate their strength at Megalopolis, the more influential League members indiscriminately voted for all of the smaller poleis and settlements in the area to participate in the synoikism. Upon careful reflection – no doubt prompted in part by the inevitable dissension issued by the supposed participants – a new defensive strategy was established – one that was complementary to the existing strategy embodied in the foundations of Megalopolis and Mantinea. Specifically, it would not have taken long to realize that in putting all their proverbial eggs in one basket at Megalopolis and abandoning the strategically significant positions held by some of these settlements, the League would have weakened rather than strengthened their underlying defensive strategy. Asea provides a particularly appropriate example.

A small and relatively minor polis close to the Megalopolitan frontier, Asea, according to Pausanias, voted to participate in the synoikism.\textsuperscript{1905} It has been already established, however, that Asea continued to exist as a polis after the synoikism. The reason is that the geographic position occupied by Asea was too strategically important to the security of both Megalopolis and Arkadia to simply abandon (see Fig. 7.30). Indeed, situated due north of and sharing a border with Lakonia, an unoccupied plain of Asea would have allowed the Spartans to circumvent both the plains of Tegea and Megalopolis and drive straight to the heart of central Arkadia, thus negating the whole raison d’être of Megalopolis.\textsuperscript{1906} While the same argument explains why we find the fortification and continued occupation at other poleis although they initially voted to participate in the synoikism, the geographic distribution of these settlements demonstrates that keeping

\textsuperscript{1905} Paus. 8.27.3.
\textsuperscript{1906} In 370 BCE, the Spartans under King Agesilaos took this exact route via Eutaia on their way to attack Mantinea (Xen. Hell. 6.5.12).
Sparta out of Arkadia was not the only concern for the new Arkadian League, and that there was a perceived internal threat to their security.

It is well known that Mantineia was a leading and influential member of the League, one whose opinion held considerable sway. Not only did the foundation of the League probably begin there, but it was also the home of the important federal leader Lykomedes, who was one of the two oecists provided by Mantineia for the foundation of Megalopolis.\textsuperscript{1907} Located only 16 km to the north of Mantineia and separated by only a series of low hills, stood Orchomenos – a city that “refused to be members of the Arkadian League on account of their hatred [ἔχθραν] toward the Mantineians.”\textsuperscript{1908} This hatred manifested itself as early as 370 BCE, when Orchomenos began to raise a mercenary force, the perceived threat of which was so great that when the rest of the Arkadian League assembled at Asea, Mantineia decided to remain at home to “keep watch upon them.”\textsuperscript{1909} Such concern was justified, for shortly after raising this army, Orchomenos joined forces with Sparta, whose soldiers they “recognized as friends.”\textsuperscript{1910} Xenophon recounts the events of 370 BCE which saw Orchomenos, as well as the Arkadian city of Heraia, allied with Sparta in several skirmishes against the army of the Arkadian League and their Elian allies.\textsuperscript{1911} As soon as Sparta departed on their invasion of Arkadia in 370 BCE, the League army “made an expedition against the Heraians, not only because they refused to be members of the Arkadian League, but also because they

\textsuperscript{1907} Xen. Hell. 7.1.23-4, 7.1.39, 7.4.2; Paus. 8.27.2.
\textsuperscript{1908} Xen. Hell. 6.5.11.
\textsuperscript{1909} Ibid.
\textsuperscript{1910} Ibid. 6.5.17.
\textsuperscript{1911} Ibid. 6.5.13ff.
had joined with the Lakedaimonians in invading Arkadia.”

Although the fate of Orchomenos is not recorded by Xenophon, as it too refused to join the League and took up arms with Sparta, the city may have received similar treatment at the hands of the Arkadian army.

In the earliest days of the Arkadian League, therefore, it is clear that Orchomenos was an ally of Sparta, but also, as Xenophon maintains, of Corinth and Phlious. It is equally clear that Orchomenos and its allies were attending interests contrary to those of Mantinea and the Arkadian League, and they constituted a serious threat to the League’s security. It is possible that at the urging of Mantinea specifically or the League as a whole, a defensive strategy was established to protect the settlements surrounding Orchomenos and their allies. Indeed, it cannot be a coincidence that at this time we see the fortification of Alea and Stymphalos – poleis that border both Orchomenos on one side and their Phliasian allies on the other. Although it is likely that the city of Alea already existed in its present location in the early fourth century BCE, that Stymphalos represented a refoundation suggests it was part of this new Arkadian defensive policy. Its new location within the valley is also telling: instead of being tucked away in the far western end of the valley, it was now confidently situated directly across from the main road leading to Phlious. Furthermore, at the same time that the fortifications were being built around Stymphalos and Alea, Gortys and possibly DIPAIA also received city walls. As these cities are located on important communication routes linking southern and central Arkadia, their fortification in the early fourth century BCE perhaps reflects a desire to curb the mobility of the Orchomenians into central Arkadia, where they

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1912 Ibid. 6.5.22.
1913 Ibid. 6.5.30.
traditionally held a lot of influence.\textsuperscript{1914}

In the end, we may never know whether the explosion of fortification building witnessed in early fourth century BCE Arkadia was conceived as one inclusive grand defensive strategy or whether such a strategy arose from that envisioned by the foundation of Megalopolis and Mantineia. What is certain, however, is that based on historical probability, the establishment of the Arkadian League and the threat to its security from the very beginning, represented by Orchomenos, Sparta, and their allies, were certainly catalysts in this process.

\textsuperscript{1914} Before the foundation of Megalopolis, Orchomenos was at the head of a political organization which included the central Arkadian poleis of Teuthis, Methydrion, and Theisoa (Karkalou).
Chapter 10: Conclusions

In his landmark study of the walls at Gortys published over 60 years ago, Martin wrote that a comprehensive study of a given fortification circuit should consider not only the architecture, history, and historical probability, but also the “histoire des enceintes de la même région, classées en séries typologiques et chronologiques.” 1915 Most recently, Camp has echoed this view, writing that where the study of fortifications is concerned, “there are instances where…we should actually think in terms of regional or local styles of wall-building.”1916 Although the advantages of studying fortifications on a regional level have long been recognized, very little has been done to advance the discipline in this regard. That is not to say that scholars of Greek fortifications have been idle, as the last 60 years have witnessed influential and instructive scholarship, without which the present study would not have been possible.1917 With the notable exception of Typaldou-Fakiris’ study of the fortifications in Phokis,1918 however, these fundamental works were carried out with primarily an architectural, technological, and/or chronological scope – not with a regional focus. The value of an exclusively Arkadian focus for shedding light on a number of architectural, topographical, and historic issues is demonstrated by the present work.

Because the ultimate aim of this study is a comprehensive regional survey of fortifications in Arkadia, the cataloguing of extant defensive works comprises a fundamental aspect. An understanding of the fortifications on an individual site level not only provides the data from which larger regional patterns may be drawn, but this

1917 E.g., Scranton (1941); Winter (1971a); Lawrence (1979); Adam (1981); Fredericksen (2011).
catalogue presents the city walls of 19 *poleis* to supplement the continuing collection of Greek mainland comparanda. The value of the local comparanda obtainable in a regional study is a significant point and one that is often overlooked. The comparanda most often employed in the studies of Greek fortifications are dictated by both their preservation and the relative historical importance of the site. From the Greek mainland, for example, the reader is constantly confronted with comparisons drawn from well-preserved and ‘important’ fortifications from sites such as Athens, Messene, Tiryns, Corinth, Asine, and Eleusis. That this present work presents the detailed analysis of every fortified *polis* – many of which may be relatively unknown outside Arkadian scholarship – is precisely what makes their individual study important. In other words, it is the fortifications of these modest settlements which are representative of the majority, and thus by default, the average Greek *poleis*. For the same reason, the comparanda employed in this survey are limited largely to other Arkadian sites, with which they will have more in common than other, more distant sites whose walls are only notable because of their preservation or that the city is historically well-known.

The synthesis made possible by the data gathered from the published literature and collected during the field reconnaissance of every site in question and assembled in the catalogue, has confirmed a number of interesting and noteworthy regionally specific patterns. Related to the chronology of the walls, it is significant that there is no evidence for fortified *poleis* in Arkadia during the Archaic period. That is not to say that *poleis* did not exist in the Archaic period, only that they were not yet fortified. This point accords with Fredericksen’s recently published survey of Greek fortifications of the Archaic period, which establishes that although there are numerous examples of Archaic city
walls on the Greek mainland, none is to be found in Arkadia. Both the lack of archaeologically attested settlements of significant size and the lack of fortifications in the Archaic period seem to affirm “the general opinion that the development of ‘true urban centres’ in Arkadia was a development of the Classical period.” When the poleis of Arkadia were eventually fortified in the Classical period, the fact that most appeared in the early fourth century BCE, strategically distributed in limited geographic areas, suggests that the larger defensive concerns of the Arkadian League were a factor. Effectively, the majority of these new fortifications appear to have been erected as defensive bulwarks, specifically in areas in the south and northeast where they could both observe and limit the movement of troops from Sparta, Orchomenos, and Phlius – the League’s enemies. At the same time, the lack of fortifications being erected in western Arkadia is explained by the peaceful relationship with Elis – an ally of the Arkadian League.

Regarding the construction and architecture of the city walls, the fortifications of every polis in Arkadia were comprised of a mudbrick superstructure set atop a stone foundation. Similarly, it is evident that although foundations were more often constructed in polygonal masonry, in all time periods trapezoidal masonry was an equally viable option. In this regard, it is established that when used alone, the type of masonry is not a reliable stylistic indicator for establishing the relative date of a circuit. Although there are no definite patterns in the architecture of the city walls at the sub-regional level, there are

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1919 Although Fredericksen (2011:176) does include the Arkadian polis of Oresthasion in his catalogue, I do not count it here because it is presumably based, not on personal observation, but solely on Pikoulas’ (1988:102ff) opinion that a small fragment he observed there was Archaic. No rationale beyond this opinion is presented, nor has any plan or photograph of this wall fragment been published. On Oresthasion, see Appendix II.

hints that proximity had an influencing affect in the decisions made by military architects. Thus, we see, for example, that Stymphalos and nearby Alea possess the only Arkadian examples of regular (i.e., uncoursed) polygonal masonry; that the overlap type of gate is most common in the circuits of the northeastern poleis; that the indented trace is found at only Gortys and the adjacent city of Theisoa (Lavda); and that there was a general preference for trapezoidal masonry in the circuits of the northern Arkadian poleis.

Finally, one of the most interesting patterns to emerge in this study is the defensive role played by the local topography at each site. While it is not surprising to find that all of the sites but one took care to incorporate some elevated terrain into their circuit, the location of every single site chosen was provided with protection in the form of some sort of watercourse (river, tributary, lake, and/or seasonal stream).

Concerning innovations in siege warfare and improvements to offensive artillery, the defensive responses of the Arkadian fortifications follow the same general developments observable in the circuits found throughout the Greek world. For example, the use of semicircular towers became more widespread as circuits lengthened to cover larger areas of flat terrain (especially at gates). Once this type of tower was established, the circuits deployed them – often indiscriminately – in combination with rectangular towers. Although the strategic spacing of towers was never completely abandoned in the smaller acropolis circuits, as towers became regular features of the circuits in the fourth century BCE, there was an accompanying shift towards regular spacing. Finally, in order to house and support higher caliber artillery, the towers built (or rebuilt) in the late fourth and early third century BCE were most often larger than the early fourth century BCE examples.
Before one of their numerous invasions of Arkadia, the Spartans consulted the oracle at Delphi, who warned them that they would find there “many acorn-fed Arkadians to stop you.” This famous, if not unfortunate, proclamation undoubtedly echoed the view held by the ancient Greeks themselves and was inherited by the earliest scholarship, which focused on the idea of Arkadia as a cultural and political backwater, inhabited by the proverbial ‘acorn eaters’. But Arkadia was not the land of acorn-eaters. Arkadia was the land of Pelagios, Lykaon, Agapenor, Lykomedes, Aeneas Tacticus, Polybius, and Philopoimen – admired by Pausanias as the greatest of all Greek men who performed deeds for Greece in the face of tyranny and invasion. Nor was Arkadia either “marginal in terms of its cultural development” or “the most backward district in the development of the πόλις.” Instead, as demonstrated by the most recent modern scholarship – characterized by a move away from traditional stereotypical interpretations of a poor and isolated Arkadia – it appears that this region was a moderately prosperous one whose inhabitants followed generally the same patterns of social, political, and cultural development seen elsewhere in ancient Greece. Just as this most recent scholarship has been responsible for leading the theoretical assumptions and disciplinary predispositions away from the idea of the backward and culturally poor Arkadia which had dominated earlier scholarship, so too it is hoped that the present work will dispel the idea that the fortified poleis of Arkadia possessed a “less advanced social and military outlook.”

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1921 Hdt. 1.66.  
1923 Parke (1933:14).  
1924 Nielsen and Roy (1999:12-13).  
1925 Winter (1971a:34).
Indeed, the comprehensive and detailed study of the fortifications demonstrates that Arkadian military architects possessed a keen awareness and appreciation of strategy, tactics, and defensive planning – elements reflected in the city walls of even the most modest poleis. It is all too easy to get lost in the architectural and topographical details and to forget that the function of a polis’ fortifications in the larger context was to both reflect and protect a city’s autonomy. In this way it represents a fundamental characteristic of the polis itself. But even at the level of their function for the individual citizen, the often poorly preserved state of the remains can lead us to forget that these walls were built to protect people, their loved ones, their homes, and their possessions. For these reasons, nothing in the fortifications was random and nothing was left to chance. The trace of every Arkadian polis was carefully plotted to maximize the efficiency of the natural defenses afforded by the topography. Every stone foundation block was quarried, carved, and positioned with care. Every mudbrick was thoughtfully laid, and every tower, gate, and postern was aligned and built with purpose.
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Appendix I: Catalogue of Fortified Arkadian Poleis

Note on the Catalogue
Each entry is a summary presentation of the data of the fortifications from Arkadian poleis derived from the published literature and the present study. The catalogue is arranged alphabetically by the name of the polis, followed by the region in Arkadia in which it is located. The entries are arranged under the following categories:

Location: denotes the setting of the fortifications in relation to the local topography and primary areas of inhabitation.

Type of Fortification: based on the relationship between the circuit and the topography, the type of fortification is given as an acropolis-, uneven-, or horizontal-type.

Ancient Sources: this category is reserved for instances where mention of the walls in question is preserved in the ancient sources.

Preservation: the degree of preservation of the walls today, including, when possible, the estimated length of the circuit (in meters) and intramural area (in hectares).

Construction: addresses the superstructure and style of masonry of the circuit in question.

Tactical Components: describes the composite parts of the fortification system, including frequency and types of gates, towers (and their spacing), posterns, and outworks. Dimensions provided for rectangular towers refer to width x projection from curtain, and are averages based on all examples from the circuit.

Natural Defenses: inherent in the strategic choice of site are elements of the local topography consciously exploited for the additional defensive advantages they afforded the fortifications themselves.

Bibliography: limited to the most relevant literature on the wall, arranged in chronological order.

Date: the date of the wall and its justification based on external evidence, historical probability, and/or architectural affinities (i.e., masonry style and/or local comparanda).
1. **Alea, Eastern Arkadia**  
*Location:* Located in the northern part of basin (with *katavothroi*) defined by mountains on all sides. The acropolis (including citadel) comprises the summit and south side of a mountain spur (attached by a narrow saddle), extending into the plain. Inhabitation was largely limited to a fortified lower city in the plain directly south of the acropolis.

*Type of Fortification:* Uneven-type. The extant remains of the acropolis are comprised of three main elements, which together form a rough triangle: a west wall, a northeast wall, and at the highest point, a separately fortified citadel. Although nothing remains, the lower city in the plain must have been surrounded with walls connected to those of the acropolis circuit.

*Preservation:* The stone foundations of the acropolis circuit (including citadel) are very well-preserved, surviving in places to over 4 m in height. They measure 1110 m in total length, enclosing an area of ca. 14.60 ha. Nothing remains of the lower city circuit, but it is estimated to have measured ca. 1220 m in length, with an intramural area of 14.30 ha.

*Construction:* The foundations of the acropolis walls and towers were constructed predominantly in an uncoursed polygonal style. The acropolis bastion and the adjacent west wall of the citadel are the only exceptions, built instead of trapezoidal blocks laid in isodomic courses. The stone foundations of all the curtains and towers in the circuit once supported a mudbrick superstructure (not preserved).

*Tactical Components:* The acropolis circuit contains 26 rectangular towers (ca. 5.50 m x 2.50 m), spaced fairly regularly at ca. 28-30 m. The citadel contains a further 11 rectangular towers of similar size and one bastion on the summit, measuring 23 x 8 m. There is one postern in the acropolis circuit and one small axial-type gate providing access to the citadel from the intramural area.

*Natural Defenses:* The height offered by the acropolis and the steep slopes on its northeast and western sides. The surrounding mountains limited the approaches to the site to routes from the northeast and south.

*Bibliography:* Meyer (1939a:19-29).

*Date:* ca. 400-370 BCE for the entire circuit, with modifications to the bastion and west wall of the citadel made in the late fourth/early third century BCE – based on historical probability, and architectural affinities.

2. **Alipheira, Western Arkadia**  
*Location:* The acropolis encompassed the apex of a narrow but high and precipitous hill sharply delineated by adjacent river valleys. The lower city was located on the eastern slope of the acropolis and was surrounded by a wall connected to the acropolis circuit.
**Type of Fortification:** Acropolis-type. A wall encircles the entire summit of the acropolis, while another extends from the acropolis to envelope the lower city on its eastern slope. There is a separately fortified citadel on the acropolis.

**Ancient Sources:** Polybius (4.77-78) records an attack on the walls and successful siege of the city by Philip V and the Achaian League in 219 BCE.

**Preservation:** Fairly well-preserved, especially the western section on the north side of the hill, the southern section (including the citadel), and parts of the northern trace where courses of the wall stand in places to heights of over 3 m. The total length of the acropolis circuit is ca. 1440 m.

**Construction:** The superstructure was mudbrick (not preserved), while the stone foundations of both the lower city and acropolis circuit (including citadel and towers) were constructed in a style best described as a predominately coursed polygonal with irregular trapezoidal.

**Tactical Components:** The acropolis circuit contains ten rectangular towers (ranging from ca. 7.50-12 m x 2-8 m) strategically, rather than regularly spaced. The citadel contains a further two rectangular towers (ca. 7 m x 7 m) and one larger tower or keep (12.40 m x 15.30 m). There are no attested posterns in the acropolis. One (possibly two) simple axial gates provided access to the acropolis from the lower city. Nothing is known of lower city towers or gates.

**Natural Defenses:** The height offered by the acropolis, and the steep slopes on its long southwest side. Zelechovitik and Phanari Rivers flank the acropolis and lower city on the west and east sides respectively.

**Bibliography:** Orlandos (1967-68); Pikoulas (1983).

**Date:** ca. late fifth century BCE for the entire circuit – based on historical probability, external evidence, and architectural affinities.

### 3. Asea, Southern Arkadia

**Location:** Located in the northern part of a basin (with katavothroi) defined by mountains on all sides. The small table-top hill comprising the acropolis is the easternmost rise in a series of low hills emanating from a mountain to the northwest. Inhabitation was largely limited to a fortified lower city in the plain directly east and southeast of the acropolis.

**Type of Fortification:** Uneven-type. A wall encircles the entire summit of the acropolis, while another extended from it via two spur walls to envelope the lower city on its eastern slope and in the plain below.
**Preservation:** The stone foundations of the acropolis circuit and northern spur wall are poorly preserved; the southern spur wall is well-preserved. The intramural area of the acropolis is 2.50 ha. Nothing remains of the lower city walls, but it is estimated to have been ca. 1000 m in length and enclosed an area of ca. 11 ha.

**Construction:** The foundations of the acropolis walls and towers were constructed in the polygonal style (whether coursed or uncoursed is unclear); the southern spur wall was constructed with polygonal blocks laid in clearly defined courses. The stone foundations of all the curtains and towers in the acropolis circuit (including spur walls) once supported a mudbrick superstructure (not preserved).

**Tactical Components:** The acropolis circuit contains at least two rectangular towers, and possibly as many as six. No less than three regularly spaced semicircular towers (ca. 5 m diameter) and one large rectangular tower (6.60 m x 6.40 m) are attested for the lower city circuit. There is one (and possibly two) posterns in the acropolis circuit and one simple axial ramp gate provided access to the acropolis from the lower city.

**Natural Defenses:** The height offered by the acropolis, and the precipitous slopes on the western side. The surrounding mountains and hills limited the approaches to the site to routes from the northeast and southwest. The Alpheios/Eurotas River flanks the lower city along most of its east and south sides.

**Bibliography:** Holmberg (1944:132-42); Dogan and Papamarinopoulos (2003); Forsén et al. (2005).

**Date:** ca. 400-370 BCE for the acropolis circuit, and ca. 300-220 BCE for the lower city walls – based on historical probability, external evidence, and architectural affinities.

4. **Dipaia, Central Arkadia**

**Location:** Located on the west bank of the Helisson River, the small triangular-shaped acropolis rises at the narrowest point from an hour glass-shaped plain defined by mountains on all sides. Inhabitation was largely limited to the south slope of the acropolis. It is uncertain whether the lower city was fortified.

**Type of Fortification:** Acropolis-type. A wall encircles the entire summit of the acropolis.

**Preservation:** Generally poorly preserved; parts of the western and eastern curtains are moderately preserved and visible beneath later medieval additions.

**Construction:** The superstructure was mudbrick (not preserved), while the stone foundations of the acropolis circuit were constructed in a coursed polygonal style.

**Tactical Components:** The acropolis was accessed on the east by one simple axial-type gate. No towers or posterns are preserved.
**Natural Defenses:** The height offered by the acropolis, and the precipitous slopes on its west and south sides. The surrounding mountains and hills limited the approaches to the site to routes from the north and south. The Helisson River flanked the lower city along its north and east sides, and series of rolling hills offered protection to the west.

**Date:** ca. 375-350 BCE (?) – based on historical probability and masonry style.

### 5. Gortys, Southern Arkadia

**Location:** Located in the middle of small basin within the Lousios/Gortynios River valley. The acropolis comprises the summit and southwest slope of a low hill extending toward the river where it ends abruptly at the edge of the river valley. Inhabitation was largely limited to the area north of the acropolis.

**Type of Fortification:** Acropolis-type. From the highest point of the hill to the northwest, the acropolis circuit embraces the southeastern slope of the hill with two roughly parallel sections, all the way to the edge of the river valley (including a small plateau comprising the southernmost part of the hill).

**Ancient Sources:** Polybius (4.60) tells us that Gortys was captured in 219 BCE by an Elian general during the First Social War between the Aitolian and Achaian Leagues.

**Preservation:** The stone foundations of the acropolis circuit are moderately preserved on the northwest and parts of the southern side. Gate B is especially well-preserved, surviving in places to its original height of ca. 3.75 m. The total length of the acropolis circuit is ca 1000 m.

**Construction:** The foundations of the walls and towers in the NW and WSW sections of the circuit are best described as predominately coursed trapezoidal with occasional polygonal blocks. The NNE section and parts of the southern acropolis wall (area of so-called ‘South Fort’) were constructed of dry rubble masonry. The stone foundations of all the curtains and towers in the circuit once supported a mudbrick superstructure (not preserved). The interior of most of the curtains was filled with the standard combination of earth and rubble packing, but also with a stack of small flat stones which was raised against the rough interiors of each facing block to separate them from the rubble fill.

**Tactical Components:** The acropolis circuit contains five semicircular towers (ca. 7.5 m in diameter) strategically, rather than regularly spaced, and at least five rectangular towers. There are four posterns located in the upper part of the circuit and three gates. All are simple frontal gates set at oblique angles to the surrounding curtain; Gate B is set back, essentially located at the end of a funnel produced by the narrowing curtains. The wall in parts of the WSW curtain and in the majority of the NNE side are arranged in a highly developed form of the indented trace.
Natural Defenses: The height offered by the acropolis, the steep slope on its northeast side, and the precipitous southeast side. The river valley and surrounding mountains limited the approaches to the site to routes from the southwest and north. The Lousios/Gortys River flanks the site to the east, while its tributaries, the Vromonero and Platanorema, surround the base of the acropolis on the west and north.

Bibliography: Martin (1947-48); Winter (1971b).

Date: ca. 400-370 BCE for the entire circuit, with repairs (of dry rubble) made to the indented trace on NNE side and to the southern part of the circuit (i.e., in the area of the so-called ‘South Fort’) during the last quarter of the third century BCE – based on historical probability, external evidence, and architectural affinities.

6. Halous, Western Arkadia

Location: Located on the north bank above the Ladon Lake. The acropolis comprises the summit and northeast side of a small spur attached by a narrow saddle to a larger mountain to the northeast. Inhabitation was largely limited to the (unfortified) area of the saddle, northeast of the acropolis.

Type of Fortification: Acropolis-type. The circuit follows the contour of the hill, encircling the summit and extending down the northeast slope.

Preservation: Generally poorly preserved; parts of the long southeast side are moderately preserved. The long northwest stretch is completely obscured by vegetation. The total length of the circuit is ca. 640 m and encloses an area of ca 1.7 ha.

Construction: The superstructure was mudbrick (not preserved), while the stone foundations of the acropolis circuit were constructed in a coursed polygonal style. The style varies considerably, ranging from large generally well-cut and -fitted blocks to thin rectilinear-like slabs.

Tactical Components: The acropolis circuit contains one semicircular (ca. 11 m diameter) and ten rectangular towers (ca. 5-6 m x 3 m), regularly spaced at ca. 30-35 m. No gates or posterns are preserved.

Natural Defenses: The height offered by the acropolis, and the steep slopes on its southern and western sides. The river valley and surrounding mountains limited the approaches to the site to routes from the west and north. The Ladon River flanks the site to the south, while a tributary, the Xerokaritena, flanks the entire west side of the acropolis.

Bibliography: Meyer (1939a:78-82)

Date: ca. 400-350 BCE for the entire circuit – based on historical probability, and architectural affinities.
7. Kleitor, Northern Arkadia

_Location_: Located in the western part of basin defined by mountains on all sides. The settlement is laid out on a generally flat plain between two rivers. The intramural area comprised the main area of inhabitation.

_Type of Fortification_: Uneven-type. Although the circuit was laid out over predominately flat terrain, the southern part of the circuit embraced a series of low hills. There was no formal acropolis.

_Ancient Sources_: Polybius (4.19) records a failed siege of the city by Aitolian forces during the Social War in 220/19 BCE.

_Preservation_: Poorly preserved for the most part; traces of the east and south sides are visible. The north side has completely disappeared. The length of the total circuit is estimated to be ca. 2500-3000 m with an intramural area of ca. 58 ha.

_Construction_: The foundations of the walls are about 4.25-4.50 m thick throughout, and comprised of isodomic courses of trapezoidal blocks. All the curtain and tower foundations in the circuit once supported a mudbrick superstructure (not preserved).

_Tactical Components_: 14 towers, all semicircular (ca 7.50-8.50 m in diameter), are preserved in the circuit strategically, rather than regularly spaced; ten are located on the high ground in the south, and four along the east side. Two gates are attested on the west side, one a simple frontall gate, the other a monumental gatecourt type. No posterns are preserved.

_Natural Defenses_: The low heights offered by Kontra hill on the south. The surrounding mountains limited the approaches to the site to routes from the south, east, and west. The city is flanked on the north by the Karnesi River, on the south by the Kleitor River, and on the west by the bulk of Pantelemona Hill.


_Date_: ca. late fourth or early third century BCE for the entire circuit – based on historical probability, external evidence, and architectural affinities.

8. Mantinea, Eastern Arkadia

_Location_: Located near the western edge of a vast plain in a basin (with _katavothroi_) defined by mountains on all sides. The settlement is situated on flat terrain and surrounded by a river. The intramural area comprised the main area of inhabitation.

_Type of Fortification_: Horizontal-type. The circuit was laid out in an elliptical shape over completely flat terrain. There was no formal acropolis.
Ancient Sources: Xenophon (Hell. 5.2.1-5) and Pausanias (8.8.7-9) record that in the aftermath of the successful siege of the city in 385 BCE by the Spartan king Agesipolis, the Mantineians were forced to tear down their city walls. Xenophon (Hell. 6.5.3) also tells us that new walls were thrown around the city after the Battle of Leuktra.

Preservation: Well-preserved for the most part; with the exception of some sections on the west, the stone foundations are preserved for nearly its entire extent. The total length of the circuit measures 3.9 km.

Construction: The foundations of the walls are about 4.20-4.70 m thick throughout, and the greater part of the stone foundation is comprised of isodomic trapezoidal blocks; the remaining minority is in the coursed polygonal style. All the curtain and tower foundations in the circuit once supported a mudbrick superstructure (not preserved).

Tactical Components: The circuit contained 126 towers in total; 105 rectangular towers (ca. 6.50 m x 4.50-5 m) were regularly spaced (ca. 25 m) on the main curtains, and 21 circular towers were reserved exclusively for protecting the gateways. The circuit was furnished with ten gates; nine were overlap gates flanked by two semicircular towers, while one was of the gatecourt type. Some of the rectangular towers were provided with posterns. No posterns in the curtains are attested. Essentially functioning as an outwork, the course of Ophis River was diverted to circumvent the circuit, converting it to a moat. The city was accessible only by bridges.

Natural Defenses: Gourtsouli hill prevented direct approach to the city from the north.

Bibliography: Fougères (1890; 1898:130-61); Hodkinson and Hodkinson (1981); Winter (1989:189-92).

Date: Original circuit was built before 385 BCE (possibly in the polygonal style); walls rebuilt on same course ca. 370 BCE (in the trapezoidal style) – based on historical probability, external evidence, and architectural affinities.

9. Megalopolis, Southern Arkadia
Location: Located near the middle of a large plain in a basin defined by mountains on all sides. The settlement is situated on broken terrain and is traversed by the Helisson River. The intramural area comprised the main area of inhabitation.

Type of Fortification: Uneven-type. North of the river, the circuit was laid out largely following the elevated contours of a small plateau, while south of the river, the walls engaged both low hills and flatter terrain. There was no formal acropolis.

Ancient Sources: The city (and its walls) were an artificial foundation, the result of a synoikism involving dozens of Arkadian settlements in ca. 370 BCE (Diod. 15.72; Paus. 8.27.8). In 331 BCE, Agis III of Sparta rose against the Macedonian Antipater, and Megalopolis was besieged and very nearly capitulated (Paus. 8.27.9). The city was
attacked (unsuccessfully) by Polyperchon in 318 BCE (Diod. 18.68.3, 18.69.3-18.72.1). In 222 BCE, the city was captured and razed by Kleomenes III (Plut. Cleom 23-25, 26.2, 29.3; Plut. Phil. 5.1-5; Polyb. 2.55.1-9, 61.2-62.12, 5.93.2; Liv. 38.34.7; Paus. 4.29.7-8, 7.7.4, 8.27.15-16, 8.28.7, 8.49.4). In 221 BCE, the city was resettled and the walls were rebuilt along their original course (Polyb. 5.93). Polybius (9.21) records that the walls of Megalopolis measured fifty stades. In 198 BCE, the city was (unsuccessfully) attacked by the Spartan tyrant Nabis (Plut. Phil. 13.1-2). In 175 BCE, Antiochus IV Epiphanes promised the citizens of Megalopolis that he would surround their city with a wall and delivered most of the money to defray the costs (Liv. 41.20.6).

**Preservation:** Extremely poorly-preserved; nothing of the walls remain visible on the surface. The total length of the circuit measures 8.85 km.

**Construction:** The foundations of the original walls range between 2 m and 4.87 m in thickness, while the later walls measure only ca. 1.20 m thick. The original circuit was constructed in a polygonal style (coursed or uncoursed is uncertain); the later repairs to the wall were of the dry rubble style. All the curtain and tower foundations in the circuit once supported a mudbrick superstructure (not preserved).

**Tactical Components:** While the original circuit probably had hundreds of towers, only four have been uncovered, two rectangular (ca. 5 m x 3 m, and ca. 7.60 m x 4 m), and two semicircular (ca. 6 m in diameter), the latter spaced ca. 30 m apart. Similarly, although the circuit must have had at least eight gates (based on Pausanias), none has been discovered.

**Natural Defenses:** The height offered by the plateau north of the river and the steep slopes on its north and east side, and the hills in the southwest corner of the circuit. The eastern, western, and parts of the northern sides of the city (north of the Helisson River) are flanked by small tributaries.

**Bibliography:** Loring (1892).

**Date:** The original circuit was built ca. 370 BCE (in the polygonal style); the walls were rebuilt on same course ca. 221 BCE (in dry rubble style) – based on historical probability, external evidence, and architectural affinities.

### 10. Nestane, Eastern Arkadia

**Location:** Located in the southeast corner of a basin (with katavothroi) defined by mountains on all sides. The acropolis comprises the summit of a small spur attached by a narrow saddle to a larger mountain to the east. Inhabitation was largely limited to the (unfortified) area of the saddle, east of the acropolis.

**Type of Fortification:** Acropolis-type. Following the general contours, the fortifications are limited to the eastern side of the hill only.
Preservation: Well-preserved for the most part, with the exception of some sections of curtain on either side of the gate.

Construction: The superstructure was mudbrick (not preserved), while the stone foundations of the acropolis circuit are best described as predominately coursed polygonal with occasional trapezoidal and rectangular blocks. The curtains measure 3.20-3.87 m in thickness.

Tactical Components: The acropolis circuit contains two semicircular towers (ca. 8-9 m in diameter), and two rectangular tower/bastions (6.90 m x 4.40 m, and 6.81 m x 3.25 m) at either end of the circuit’s only (overlap) gate.

Natural Defenses: The height offered by the acropolis, and the steep and rocky slopes on its south, west, and northern sides. The natural defenses on these sides of the hill were apparently deemed sufficient, as they remained unfortified. The surrounding mountains limited the approaches to the site to routes from the southwest and north. Also the seasonal lake/marsh (emptied by the katavothros immediately north of the hill), would have inundated much of the plain to the north, limiting the approach from that direction.

Bibliography: Lattermann (1913); Hodkinson and Hodkinson (1981).

Date: ca. 370-50 BCE for the entire circuit – based on historical probability, external evidence, and architectural affinities.

11. Orchromenos, Eastern Arkadia
Location: The acropolis comprises the summit of a small hill, located between two large plains, and attached by a low and narrow saddle to a larger mountain to the west. Inhabitation was largely limited to the (unfortified) area below the acropolis, on the south and southeast slopes of the hill.

Type of Fortification: Acropolis-type. Enclosing the summit of the hill, the L-shaped circuit was laid out largely over the southern half of the hill, where it follows the general contours of the hill.

Ancient Sources: In 418 BCE, Orchomenos fell to a siege by Athenians and Argive forces (Thuc. 5.61.4-5; Diod. 12.79.2). In 370 BCE, the city walls were instrumental in repelling an attack by Mantineian troops (Xen. Hell. 6.5.13). In 315 BCE, the city was taken by Kassander and a Macedonian garrison was installed (Diod. 19.63.5). In 303 BCE, the city was attacked and taken by Demetrios Poliorketes (Diod. 20.103.5). In 229 BCE, Orchomenos was captured and garrisoned by Kleomenes of Sparta (Polyb. 2.46). In 223 BCE, Antigonus III retook the city by force from the garrison loyal to Kleomenes and installed his own troops (Polyb.2.54). In the mid-second century CE, Pausanias (8.13.2) notes that the walls of the old city on the summit were in ruins.
Preservation: Generally poorly preserved; while there are some visible remains of the southern part of the circuit, most of the circuit is covered by dense overgrowth. The walls run for a length of 2.30 km and enclose an area of ca. 20 ha.

Construction: The foundations of the walls range between 2 m and ca. 4 m in thickness, and were constructed in an isodomic trapezoidal style. All the curtain and tower foundations in the circuit once supported a mudbrick superstructure (not preserved).

Tactical Components: The acropolis circuit contains no fewer than 21 towers, all rectangular and measuring ca. 6.50 m x 4 m. There are remains of a large tower/bastion on the highest point of the hill. The circuit possessed at least two gates, one of which appears to be an overlap type. No posterns are attested.

Natural Defenses: The height offered by the acropolis, and its steep eastern slope. Its position in relation to the surrounding mountains largely limited the approaches to the site to routes from the north and south. The east side of the hill was flanked by a small, but fast flowing stream.


Date: ca. 375-25 BCE – based on historical probability, external evidence, and architectural affinities.

12. Paos, Northern Arkadia
Location: located on the north bank above the Lopesi/Sireos River. The acropolis comprises the summit of a small spur attached by a narrow saddle to a larger mountain to the north. Inhabitation was largely limited to the (unfortified) area in the small hollow east of the acropolis.

Type of Fortification: Acropolis-type. The circuit follows the contour of the hill, encircling the summit.

Preservation: Generally poorly preserved; parts of the east side are moderately preserved, while most of the other sides are obscured by vegetation and modern terracing. The total length of the circuit is 516 m enclosing an intramural area of ca. 2-3 ha.

Construction: The superstructure was mudbrick (not preserved), while the stone foundations of the acropolis circuit were constructed (seemingly indiscriminately) in both a coursed and uncoursed polygonal style.

Tactical Components: The acropolis circuit contains four rectangular towers (of various sizes), strategically rather than regularly spaced, as well as one simple frontal type gate.
Natural Defenses: The height offered by the acropolis, and the steep slope on its southern side. The river valley and surrounding mountains limited the approaches to the site to routes from the east and west. The Lopesi/Sireos River flanks the hill to the south, while one of its tributaries, the Paos River, flanks the site to the west.

Bibliography: Papandreou (1920:121-29).

Date: ca. late fifth or early fourth century BCE (?) – based on historical probability and architectural affinities.

13. Pheneos, Northern Arkadia

Location: Located in the northern part of basin (with katavothroi) defined by mountains on all sides. The acropolis comprises a small hill. Inhabitation was largely limited to the lower city in the plain directly south of the acropolis.

Type of Fortification: Acropolis-type. The acropolis circuit follows the contour of the hill, encircling the summit. It is uncertain whether or not the lower city was fortified.

Ancient Sources: In 225 BCE, the city was captured by Kleomenes (Plut. Arat. 39.3; Plut. Cleom. 17.3; Polyb. 2.52; Liv. 28.7.16). Pausanias (8.14.4) observed parts of the fortifications around the middle of the second century CE.

Preservation: The stone foundations of the acropolis circuit are well-preserved only on the eastern end of the northern side of the hill, where they have been recently exposed by the Greek Archaeological Society. Nothing is known of a lower city circuit.

Construction: The foundations of the acropolis walls and towers were constructed in a coursed polygonal style. The stone foundations of all the curtains and towers in the circuit once supported a mudbrick superstructure (not preserved).

Tactical Components: The exposed section of the acropolis circuit contains five semicircular towers (ca. 6-8 m diameter), fairly regularly spaced at ca. 30 m, and possibly two rectangular towers. There is no clear evidence of gates or posterns amongst the remains.

Natural Defenses: The height offered by the acropolis and the surrounding mountains limited the approaches to the site to routes from the north and south. The Doxas River flanks the eastern and southern side of the site.

Date: ca. 400-350 BCE (?) – based on historical probability, external evidence, and architectural affinities.
14. Phigaleia, Western Arkadia

Location: The site comprises a considerable plateau on the north bank of the Neda River. The plateau is nowhere uniform or flat, but generally slopes down from north to south. The acropolis is situated at the summit of the plateau. Inhabitation was limited to the intramural area.

Type of Fortification: Uneven-type. The circuit generally follows the contours of the hill, especially the eastern section. The westernmost section embraces a small rise.

Ancient Sources: In 659 BCE, a Spartan army besieged and then occupied the city (Paus. 8.39.3). In 375 BCE, pro-Spartan Phigaleian exiles based in Heraia made attacks against the city (Diod. 15.40). Pausanias (8.39.5) describes the position of the walls in relation to the local topography.

Preservation: Relatively well-preserved, especially the north and eastern sections, although most of the trace has survived enough to define the general outline. The total length of the wall is ca. 4.5 km, and the total intramural area is estimated to be ca. 195 ha.

Construction: The foundations of the acropolis walls and towers were constructed in a predominantly coursed polygonal style. The stone foundations of all the curtains and towers in the circuit once supported a mudbrick superstructure (not preserved).

Tactical Components: The city wall contained 17 towers, all but one of which are located in the northeast part of the circuit. Rectangular and semicircular towers are employed indiscriminately. Two corbelled posterns are attested. No gates have been identified, but the location of at least two has been plausibly suggested. Traces of both a hypoteichismata and proteichismata are preserved.

Natural Defenses: The height offered by the acropolis, and the steep slope on its southern side. The river valley and surrounding mountains (combined with hypoteichismata and proteichismata) limited the approaches to the city gates to routes from the east and west. The Neda River and its precipitous slope flank the hill to the south, while one of its tributaries, the Lymax River, flanks the site to the east.

Date: ca. 425-375 BCE – based on historical probability, external evidence, and architectural affinities

15. Psophis, Northern Arkadia

Location: Located on the north bank of the confluence of Aroanios and Erymantos Rivers. The site comprises the summit and southwestern slope of a small spur attached by a narrow saddle to a larger mountain to the north. Inhabitation was largely limited to the intramural area.

Type of Fortification: Uneven-type. From the summit, the circuit descends to surround the lower terrain between the two rivers, generally following the contours of the hill.
Ancient Sources: In 219/18 BCE, Achaian League and Macedonian forces under Philip V besieged and captured the city (Polyb. 4.70-72).

Preservation: Moderately well-preserved, especially the northern and parts of the southern section. The long southwest stretch of the circuit is not preserved.

Construction: The foundations of the walls have an average width of ca. 2.50 m, and were constructed in a predominately isodomic trapezoidal style, although sections of the wall in the northeast part of the circuit combine polygonal with the trapezoidal. The polygonal sections may be a later repair. All the curtain and tower foundations in the circuit once supported a mudbrick superstructure (not preserved).

Tactical Components: The city wall contained 13 rectangular towers (possibly as many as 18), strategically rather than regularly spaced. No gates or posterns have been confidently identified. Uncertain as to whether the separately fortified citadel is medieval.

Natural Defenses: The height offered by the acropolis, and the steep slope on its northwestern and northeastern side. The river valleys and surrounding mountains limited the approaches to the city to routes from the northeast, northwest, and south. The Aroanios and Erymantos Rivers flank the city to the west and east respectively.


Date: The original circuit (trapezoidal) was built late fifth or early fourth century BCE, with a possible repair phase (polygonal intrusions) dated to the late third century BCE – based on historical probability, external evidence, and architectural affinities.

16. Stymphalos, Northern Arkadia

Location: Located on the northern edge of a basin (with katavothroi) defined by mountains on all sides. The site was positioned on the north shore of a small lake. It was laid out over largely flat terrain but also possessed an acropolis in the form of a small spur extending into the plain to the east. Inhabitation was limited to the intramural area.

Type of Fortification: Uneven-type. From the acropolis, the circuit descends to the north and east to surround the flat area comprising the lower city.

Ancient Sources: In the early 4th century, the Athenian general Iphikrates laid siege to the city (Xen. Hell. 4.4.16; Strab. 8.8.4). In 315 BCE, the city was captured in a night attack by Apollonides, one of Kassander’s generals (Diod. 19.63.1-2).

Preservation: The walls and towers on the acropolis and western side of the city are fairly well-preserved, almost nothing of the northern section survives, while some parts of the eastern trace is visible above ground. The circuit is ca. 2.5 km long and enclosed an intramural area of ca. 30 ha.
Construction: The foundations of the walls have an average width ranging between 2.50 m and 4.50 m, and were constructed in a predominately polygonal style. All the curtain and tower foundations in the circuit once supported a mudbrick superstructure (not preserved).

Tactical Components: The city wall contained one hexagonal and six rectangular towers (ca. 6.50 x 2.50 m), 26 semicircular (ca. 6.35 m in diameter), regularly spaced throughout the circuit. There is one large rectangular bastion (21 m x 11 m) at the highest point on the acropolis, and one large artillery tower (15 m x 11 m) in the middle of the west side. The circuit possessed seven gates, four of which were of the overlap type, one was a ramp gate, one was a simple frontal opening type, and one was a gatecourt type. Only one postern has been found.

Natural Defenses: The height offered by the acropolis, and the precipitous slope on its south side. Spring-fed streams flank the east side of the city, while the lake covered the entire breadth of the city on the south. The lake and south slope of the acropolis created a natural bottle-neck upon approach to the city from the southwest. The lowest slopes of Mt. Kyllene flank the site to the north.

Bibliography: Orlandos (1924 to 1930); Williams and Gourley (2005).

Date: The original circuit was laid out in early fourth century BCE; modifications were made to several towers and gates in the late fourth or early third century BCE – based on excavated material (coins and ceramics), historical probability, external evidence, and architectural affinities.

17. Teuthis, Central Arkadia

Location: Located beneath modern Dhimitsana on the east bank above the Lousios/Gortynios River. The acropolis comprises the summit of a small spur attached by a narrow saddle to a larger mountain to the southeast. Inhabitation appears to have been both in the intramural area and the adjacent saddle.

Type of Fortification: Acropolis-type. The circuit follows the contour of the hill, encircling the summit.

Preservation: Poorly preserved; remains of the circuit are limited to only nine isolated fragments located among the buildings of the modern village.

Construction: The stone foundations of the acropolis circuit, ranging from 1.40 m to 2.30 m in thickness, were constructed predominately in a coursed trapezoidal style, with one (possibly earlier) section in a rough polygonal or dry rubble style. The superstructure was mudbrick (not preserved).

Tactical Components: Only two rectangular towers (ca. 6.50 m x 6 m) are preserved from the circuit. No gates or posterns survive.
Natural Defenses: The height offered by the acropolis, and the steep slopes on its western and southwestern sides. The river valley and local topography limited the approaches to the site to routes from the north and south. The Lousios/Gortynios River flanks the hill to the west and southwest, while one of its tributaries flanks the site to the north and northeast.

Bibliography: Pikoulas (1986)

Date: ca. 370-200 BCE – based on historical probability, external evidence, and architectural affinities.

18. Theisoa (Karkalou)

Location: Located on eastern edge of a small plain and at the western terminus of a narrow valley. The acropolis comprises the summit of a relatively flat hill attached by a narrow saddle to a larger mountain to the southeast. Inhabitation appears to have been largely limited to the (unfortified) area on the adjacent saddle.

Type of Fortification: Acropolis-type. The circuit follows the contours of the hill, encircling the summit.

Preservation: Poorly preserved; remains of the circuit are limited to a few courses of isolated sections of curtains and towers, and to blocks strewn around the edge of the hilltop.

Construction: The stone foundations of the acropolis circuit, averaging ca. 2 m in thickness, were constructed predominately in a coursed trapezoidal style. The superstructure was mudbrick (not preserved).

Tactical Components: Only three towers are preserved, strategically rather than regularly spaced. The circuit also possessed one small ramp gate. No posterns are attested.

Natural Defenses: The height offered by the acropolis, and the precipitous slopes on its western and north sides. The river valley and local topography limited the approaches to the site to routes from the southwest and northeast. A narrow but fast moving tributary of the Helisson River flanks the hill to the north.

Bibliography: Oikonomos (1910-11); Hiller von Gaertringen and Lattermann (1911:37-8).

Date: ca. third century BCE (perhaps second half) – based on historical probability and architectural affinities.
19. Theisoa (Lavda)

*Location*: Located on the south bank of the Alpheios River. The site occupies the summit of an isolated cone-shaped hill. Inhabitation appears to have been limited largely to the intramural area.

*Type of Fortification*: Acropoli-type. Roughly trapezoidal in shape, the circuit follows the contours of the hill, encircling the summit. There is a separately fortified citadel on the highest point of the hill.

*Preservation*: Moderately well-preserved; most of the west and north sides of the circuit, including parts of the citadel, survive. Most of the south and southeast sides are no longer visible. The circuit runs for a total length of ca. 835 m.

*Construction*: The stone foundations of the acropolis circuit, ranging from 1.30 to 3 m in thickness, were constructed predominantly in a coursed polygonal style. The superstructure was mudbrick (not preserved).

*Tactical Components*: The main circuit possessed one semicircular and nine rectangular towers regularly spaced at ca. 60-70 m, perhaps as many as three gates, no fewer than three posterns, as well as an indented trace. The citadel contained one large rectangular tower and was accessed from the lower city by a small frontal type gate.

*Natural Defenses*: The height offered by the acropolis, and the steep slope on its northern side. The Lousios/Gortynios River flanks the hill to the north and east, while two of its tributaries, the Soultina and Mylaon Rivers, flank the site to the south and southwest respectively.


*Date*: ca. 325-275 BCE – based on historical probability, external evidence, and architectural affinities.
Appendix II: Other Attested Fortified Arkadian Poleis

In addition to the poleis described in the previous chapters, there is evidence to suggest that other fortified poleis existed in Arkadia during the Classical and Hellenistic periods (if not earlier). Yet the study of these communities is beset by a number of problems which lie outside the scope of the present work – for example, when fortifications are no longer visible at those sites that are known from the ancient sources (or early modern reports) to have been fortified. Autopsy is a significant element in the methodology employed in this work, and sites in which the author did not personally observe the remains of the fortifications were excluded.\(^{1926}\) Similarly excluded from the main body of work were sites otherwise known from the historical record but which have not been securely identified, or whose polis status is unsubstantiated. In the interest of comprehensiveness, however, the excluded sites that may have been poleis and which were fortified, are briefly presented below.\(^{1927}\)

1. **Bouphagion (B/C).**\(^{1928}\) The site of Bouphagion is perhaps to be associated with the remains at Paliokastro, just across the Alpheios from ancient Theisoa (Lavda), where there are remains of inner and outer fortification circuit employing both rectangular and round towers. While Pausanias (5.7.1, 8.26.8, 8.27.17) mentions the river Bouphagos, there is no mention of the community Bouphagion in the ancient historical record and it is not certain whether it was ever a polis or merely a fort. On the fortifications at the site, see Charneux and Ginouves (1956).

2. **Brenthe (C).** Although its exact location has not been found, based on Pausanias’ itinerary (8.28.7), the site of ancient Brenthe should be sought near modern Karitaina. Pausanias (8.28.7) refers to the settlement as a polis, but otherwise, is the only mention of it in the ancient sources. If the site stood near Karitaina it is hard to imagine that such a strategic place would not have been fortified (Feije 1994:57).

3. **Eutaia (A).** Eutaia is situated in the southern part of the Asean plain near the modern village of Lianos. Xenophon (Hell. 6.5.12) tells us that the polis of Eutaia was fortified, although it is not clear if he is referring to the lower city or the acropolis. If he is referring to the acropolis walls, his description may be reconciled with Loring’s (1895:51) observation of an inner and outer wall atop the summit of Agios Konstantinos adjacent to the site. Despite the rough plan accompanying Loring’s account, I could find no trace of

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\(^{1926}\) For reasons discussed earlier, Megalopolis is the only exception.

\(^{1927}\) For a detailed summary of the evidence for the polis status of these communities, see Nielsen (2002:549-99). I have excluded from the appendix the communities of Mainalos, Lykoa, and Trikolonoi because so little is known about them, including their exact location and polis status. Nonakris and Helisson are excluded because there is no evidence that they were fortified. I have also excluded from consideration Lousoi and Lykosoura, which although possibly poleis, were primarily concerned with the administration of their associated sanctuary.

\(^{1928}\) The letter (A, B, or C) immediately following the entry indicates the reasons for its exclusion from the main body of work = A: known fortified polis sites at which no remains of the fortifications were observed by the author; B: fortified site which whose polis status is likely, but uncertain; C: sites known to have been fortified, but whose identification/location is uncertain.
either walls on this hill. For more information on Eutaia, see Leake (1830:3.31), Loring (1895:50-51), Frazer (1898:4.304), Pikoulas (1988a:70-76), and Nielsen (2002:554-55).

4. Heraia (A). The site of Heraia lies in western Arkadia on a plateau near the confluence of the Alpheios and Ladon rivers. Although the site was certainly fortified, it is so large and overgrown that I was unable to perceive any remains of the fortifications. Remains of the fortifications were observed, however, by Curtius (1851:365-66) and Frazer (1898:4.295); although by the time of Frazer’s visit very few remains were visible. On the fortifications, see Bölte (1913:414), Meyer (1939a:106), Jost (1985:73, 76), and Pritchett (1989:39).


6. Kynaitha (A/C). Although it is likely that the settlement of Kynaitha stood on or near the modern city of Kalavryta, the precise identification of its location has not been substantiated. The city’s fortifications are mentioned by Polybius (4.18). It is possible that the high rocky hill east of the modern city was the ancient acropolis, and while no remains of fortifications have been found there, they may lie buried beneath the later medieval castle. For more information on Kynaitha and the Kalavryta area, see Gell (1817:131), Dodwell (1819:2.447), Leake (1830:2.109-12; 3.179), Curtius (1851:1.382-84), Bursian (1862:2.266), Wyse (1865:2.182-86), Frazer (1898:4.260-61), Meyer (1939a:107-10), Howell (1970:96), Jost (1985:51-53), Papahatzis (1994:247-49), Pikoulas (1981), and Nielsen (2002:563).

7. Methydrion (A). Methydrion lies on a flat hill, ca. 12 km due east of ancient Theisoa (Karkalou). I searched among the thick overgrowth along the edge of the entire hill and found no traces of the fortifications. While accounts provided by early travelers and later scholars confirm the site was fortified, it is uncertain whether this fortified hill was strictly an acropolis in the traditional use of the word, or whether there was any substantial intramural habitation. Early descriptions of parts of the fortifications are provided by Leake (1830:2.57), Ross (1841:116), Curtius (1851:1.310), Rangabé (1857:110), Bursian (1862:2.230), Frazer (1898:4.362), Hiller von Gaertringen and Lattermann (1911:31-32), and Meyer (1932:1388). See also, Gell (1817:126), Boblaye (1836:150-51), Leake (1846:201), Scranton (1941:164), Jost (1985:213-16), Papahatzis (1994:326-29), Nielsen (2002:576-78), and Kollias (2003).
8. **Oresthasion (A/C)**. The site of Oresthasion was likely located at or very near the modern village of Anemodouro, in the southern part of the Megalopolis basin. Although upon visiting the site, I could find no trace of this wall, Pikoulas (1988:102ff) apparently observed traces of an acropolis circuit located atop the hill of Groumourou adjacent to the village. No remains of a lower city wall have been discovered. For the various accounts of the area and alternatives to Anemodouro for the location of the site, see Gell (1817:137), Leake (1830:2.45, 2.319; 1846: 247-48), Bursian (1862:2.227), Loring (1895:27-30), Frazer (1898:4.413), Meyer (1939c), Howell (1970:101), Jost (1973:245-46), Nielsen (2002:581-82); Frederiksen (2011:176).

9. **Pallantion (A)**. The site of ancient Pallantion is centred around a modest hill near the western edge of the Tegean plain about 7 km southwest of modern Tripolis. That the small acropolis was fortified is implied by Pausanias, who tells us that “in ancient time they used the hill above the city as a fortress” (8.44.5). Unspecified ancient ruins were noted by Gell (1817:136), Leake (1830:1.117-18), Boblaye (1836:146), and Bursian (1862:2.224), while traces of the fortifications specifically were observed by Ross (1841:62-63), Curtius (1851:1.263), and Frazer (1898:4.420-21). For further information on Pallantion and surrounding area, see Meyer (1949), Romaios (1958), Howell (1970:94), Jost (1985:197-199), Papahatzis (1994:373-75), Nielsen (2002:583-84).

10. **Tegea (A)**. The site of ancient Tegea is located roughly in the centre of the southern half of Arkadia’s great eastern plain. The city walls of Tegea are mentioned by Xenophon (**Hell.** 6.5-8-9) and Diodorus (12.79.3), and implied by Thucydides (5.6.2). Trial trenches excavated in the early 1890s revealed traces of the wall in four places, and the walls of Tegea were apparently of mudbrick on a stone foundation (Bérard 1892:548). Scholars from the Norwegian Institute at Athens continue to search for the exact line of fortifications, but note that the walls themselves, even in the light of geophysical survey, remain strangely elusive (K. Ødegård, pers. com.). For most recent scholarship on Tegea, see Voyatzis (1990), Papahatzis (1994:404-9), Nielsen (2002:592-96), Ødegård (2005).

11. **Thaliades (A/B/C)**. The site of Thaliades lies on the north side of the Ladon, west of ancient Halous, in the vicinity of modern Vachlia. Although Meyer (1939a:75-78) observed traces of a fortification wall surrounding the top of a small hill at Thaliades, because the site is completely overgrown today, I did not observe any remains of the circuit. For other remains in the area and alternatives to Vachlia for the location of the site, see Leake (1830:2.73; 1846:228), Curtius (1851:1.374ff), Rangabé (1857:68-69), Levi (1971:432, n.178), Jost (1985:45), and Nielsen (2002:597).

12. **Thelphousa (A)**. Ancient Thelphousa is located on a twin-peaked hill on the east bank of the Ladon river, just west of the modern village of Melidonion and north of the hamlet of Toubitsi. The city was certainly fortified, although I was unable to distinguish any traces of the walls that were observed in the 19th century by Curtius (1851:1.371), Bursian (1862:2.259), and Frazer (1898:4.286). For further descriptions and more information about the site, see Gell (1817:120), Leake (1830:2.98), Meyer (1934; 1939a:85-87), Lemerle (1939), Jost (1985:60-70; 1986), Pritchett (1989:38), Papahatzis (1994:276-80), and Nielsen (2002:597-99).
13. *Torthyneion (A/C)*. It is probable, although not certain, that ancient Torthyneion is located on Kolinos Hill, about 1 km northeast of the small village of Lasta.\(^{1929}\) Although Pikoulas (1990-91) apparently observed traces of two fortification walls – one around the summit, and another lower down – I could not perceive the remains of either. For descriptions of the area and alternatives to Kolinos Hill for the location of the site, see Meyer (1936; 1939a:35-8), Howell (1970:99-100), Nielsen (2002:600).

14. *Trapezous (A/C)*. The exact location of ancient Trapezous within the Megalopolis Basin is uncertain. Based on Pausanias’ vague description (8.29.1), several candidates have been proposed, including at or near Karitaina [Dodwell (1819:2.381), Boblaye (1836:164)], above the modern village of Mavria [Leake (1830:2.292-93), Bather and Yorke (1892-93:227)], and modern Kyparissia [Karapanagiotou (2005)]. While the site at Kyparissia is the only one of these locations known to have been fortified, I was nonetheless unable to distinguish any remains of the city wall at the site.

\(^{1929}\) Incidentally, on my visit to the site I met the mayor of Lasta and although he was aware of the ancient remains on Kolinos Hill, neither he nor the other villagers had ever heard of ancient Torthyneion.