

The Ancient Circuit Wall of Athens: Its Changing Course and the Phases of Construction

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Source: Hesperia: The Journal of the American School of Classical Studies at Athens, Vol. 80,

No. 1 (January-March 2011), pp. 71-156

Published by: The American School of Classical Studies at Athens

Stable URL: http://www.jstor.org/stable/10.2972/hesp.80.1.0071

Accessed: 18/03/2014 10:18

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HESPERIA 80 (2011) Pages 71-156

# THE ANCIENT CIRCUIT WALL OF ATHENS

# Its Changing Course and the Phases of Construction

# **ABSTRACT**

This paper presents a survey of the physical remains of the ancient Athenian circuit wall, which are plotted here on a new map aligned with the city's modern urban structure. Technical details of the methods and materials of construction are reviewed in order to distinguish the characteristics of the surviving stretches of walls and to assess the chronological value of these details. The author proposes likely locations for sections of the circuit wall not yet identified. Drawing on the results of the survey and on literary and epigraphical evidence, the author identifies four courses and 15 construction phases of the city wall of Athens between the early 5th century B.C. and the mid-6th century A.D.

### INTRODUCTION

The Athenian city wall was built in the early 5th century B.C. and was repeatedly reconstructed and repaired until the end of antiquity, possibly in the mid-6th century A.D.¹ The historical implications of this structure for the political welfare and the defensive capacity of Athens have made the physical remains of the wall highly valuable among archaeological evidence. In addition, the monumental size and structural stability of the remains as well as their ancient topographical function have rendered their study particularly attractive to architects, topographers, and archaeologists.

1. I wish to express my gratitude to Charalampos Bouras, Vassilis Lambrinoudakis, and Fani Mallouchou-Tufano in their capacity as advisors for my Ph.D. thesis, from which the present article grew. I am indebted for advice and encouragement to Ronald Stroud, Manolis Korres, Angelos Matthaiou, and Jutta Stroszeck. I would also like to thank Judith Binder, from whom I learned so much in our lively and

inspiring discussions during the course of my research. I am very grateful to Vanda Papaefthemiou and Leda Costaki for their comments on earlier drafts and to the anonymous *Hesperia* referees for their comments and bibliographical recommendations. I also wish to thank the Archaeological Society at Athens, the 3rd Ephoreia of Prehistoric and Classical Antiquities, and the Deutsches Archäologisches

Institut for providing photographs and assistance. Finally, I leave for last to stress the immense profit I had through working on the manuscript with Molly Richardson, expert scholar and counselor. Unless otherwise noted, excerpted text and translations of the ancient literary sources are from the Loeb editions. Translations of inscriptions and passages in modern Greek and German are those of the author.

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Research on the Athenian city wall began in the period between the 15th and 17th centuries A.D., when early travelers such as Cyriacus of Ancona, Urbano Bolzanio, Père Babin, and Jacob Spon visited Athens, and were particularly curious to rediscover the ancient relics attested by Pausanias and others. In the middle of the 18th century, the study entered a new era with the Society of Dilettanti and especially the work of James Stuart and Nicholas Revett. Antiquarian undertakings continued during the 19th century, when Edward Dodwell, Sir William Gell, Louis François Sébastien Fauvel, and William Martin Leake laid the foundations for the first serious arguments concerning the course of the city wall and the position and names of its gates.

A gradual exposing of numerous stretches of the enceinte of Athens was accomplished over a long period of archaeological investigation, exceeding a span of 170 years and engaging such emblematic personalities of Greek and foreign archaeology as Kyriakos Pittakys, Ludwig Ross, Rizos Rangabé, Petros Pervanoglu, Stephanos N. Koumanoudes, Ernst Curtius, Johann August Kaupert, Wilhelm Dörpfeld, Curt Wachsmuth, Ferdinand Noack, and Émile Burnouf. The physical remains of the city wall were mapped by a number of these researchers, most notably by Curtius (1868) and Curtius and Kaupert (1878, 1881), providing a critically important record of remains that were beginning to be lost from view during the 1870s in the rebuilding of the new city.

The next landmark in research on the ancient Athenian enceinte is the valuable study by Walther Judeich, *Topographie von Athen* (published in 1905; revised edition, 1931), and its accompanying plan of the ancient walls, based on the newest archaeological finds. In 1960, John Travlos, having spent many years in the study of ancient Greek topography, brought together the results of archaeological research at Athens through the late 1950s in his  $\Pi o\lambda \epsilon o\delta o\mu \iota \kappa \dot{\eta}$   $\dot{\epsilon} \dot{\xi} \dot{\epsilon} \lambda \dot{\iota} \dot{\xi} \dot{\iota} \zeta$   $\dot{\tau} \dot{\omega} \dot{\nu}$   $\dot{\lambda} \partial \eta \nu \dot{\omega} v$ . This publication, along with the maps and plans of the walls of Athens that were published in the next two books by Travlos, *Pictorial Dictionary of Ancient Athens* (1971) and *Bildlexikon zur Topographie des antiken Attika* (1988), remains an essential reference work for scholars attempting to identify newly discovered remains of the city wall. Subsequent archaeological findings and research, which have provided new information concerning the wall, have not been included in comprehensive accounts thus far.

The systematic study of the circuit wall of Athens that is undertaken here has required a complete survey of all known finds relevant to the monument, including new finds and the evidence obtained in previous excavations. Inventorying the fortification finds was a first step in this effort.<sup>3</sup> Next, drawing on additional archaeological, epigraphical, and historical evidence, I focused on two basic issues relating to the wall: its course and the dates of its phases of construction between the early 5th century B.C. and the mid-6th century A.D. This article presents the results of this research.

It is widely recognized that there are no archaeological remains in Athens that can be securely assigned to fortifications of the Archaic period. Debate over the existence of an Archaic Athenian city wall has consequently been based primarily on the analysis of historical sources. Although my research is directed toward the periods from which the physical remains of an Athenian circuit wall have been recorded, and therefore no earlier than 479/8 B.C., discussion of the possibility of an Archaic city wall may serve as a general background to the wall's later history.

- 2. Also useful is the pocket-sized "Historical Map of Athens" published by the Greek Ministry of Culture (Athens 1989), which shows remains of the ancient city wall in relation to the modern city.
- 3. The initial results of this project are presented in Theocharaki 2007, pp. 172–378.

# AN ARCHAIC CITY WALL AT ATHENS?

The absence of archaeological remains of an Archaic city wall at Athens and a perceived inadequacy of the literary sources have prompted the view that the existence of an Archaic circuit wall, "according to the knowledge we have today on these matters, . . . is improbable and unproven." Dörpfeld considered the Mycenaean walls of the Acropolis to have been the only fortification of the city prior to the erection of the Themistoklean Wall in 479/8 B.C. Other scholars, by contrast, have maintained that "all attempts to deny the existence of a pre-Persian circuit should now be abandoned."

Judeich was the first to challenge Dörpfeld on the topic of the Archaic wall, writing that "it is impossible for Athens not to have had any walls, at a time when the whole of Greece consisted of fortified cities." This claim has found archaeological support in subsequent excavations of Archaic circuit walls at other sites. Debate on this topic continues, focused primarily on whether the rise of the Greek city-state was accompanied, and can be confirmed, by the construction of Archaic fortification walls. In the following section, I review and evaluate the ancient literary sources that figure prominently in discussions of an Archaic fortification wall at Athens.

# LITERARY SOURCES

I focus here on the literary testimonia that have created reasonable expectations for the existence of an Archaic Athenian city wall: Herodotos 9.13; Andokides 1.108; and Thucydides 1.89.3, 1.93.2, 6.57.<sup>10</sup>

Herodotos (9.13) informs us that in the winter of 479 B.C., Mardonios, in setting fire to Athens, brought about extensive destruction in the city: εἴ κού τι ὀρθὸν ἦν τῶν τειχέων ἢ τῶν οἰκημάτων ἢ τῶν ἰρῶν, πάντα καταβαλὼν καὶ συγχώσας ("he . . . utterly overthrew and demolished whatever wall or house or temple was left standing"). Herodotos here refers to the walls at the time of the Persian invasion as being an integral part of the residential quarters of the city. The same is suggested in a passage from the orator Andokides dated to 399 B.C. (1.108), where he relates that the Athenians "found their city a waste, her temples burnt to the ground, and her walls and houses in ruins" (τὴν πόλιν ἀνάστατον παραλαβόντες ἱερά τε κατακεκαυμένα τείχη τε καὶ οἰκίας καταπεπτωκυίας).

- 4. Maier 1959, p. 20. Earlier scholars unconvinced about the existence of the Archaic city wall include Harrison (1906, p. 31) and Gerkan (1924, p. 26). For a review of historical evidence that casts doubt on the existence of the Archaic wall, see Winter 1971, p. 62.
  - 5. Dörpfeld 1937, pp. 22-29.
- 6. Winter 1982, p. 202. Support for the existence of the Archaic wall is found in Lolling 1889, p. 299; Young 1951; Winter 1971, pp. 61–64; Vanderpool 1974; Lauter-Bufe and Lauter 1975; Wycherley 1978, pp. 9–11;

- Winter 1982; and Hansen 2004, p. 634.
- 7. Judeich 1931, p. 121. For the same position, see Kourouniotes 1931–1932 and Travlos 1960, p. 34.
  - 8. Weir 1995, pp. 249-250.
- 9. Snodgrass 1986, p. 130; Ducrey 1995, p. 254.
- 10. Less conclusive indications for the existence of the Archaic wall can be found in Hdt. 7.140, Thuc. 1.126.6, Pl. *Criti.* 112a, Lykourg. 1.86, Arist. *Ath. Pol.* 23.4. For later testimonia, see Nep. *Milt.* 4.4, Just. *Epit.* 2.15.1–2, Aristid. *Or.* 1.191.
  - 11. In some commentaries on

Herodotos, the historian's description of the extent of destruction to the city is considered to be exaggerated: see, e.g., Rawlinson 1875, p. 381, n. 4; Shuckburgh 1893, pp. 91–92; How and Wells 1912, p. 291. According to Pausanias (1.18.1, 1.20.2), the old sanctuaries of the Dioskouroi and of Dionysos were preserved up to his time. Archaeological research in the Agora has shown, in addition, that the Stoa Basileios and the Aiakeion were not utterly destroyed during the Persian invasion; see Camp 1986, p. 60.

Support for the existence of an Archaic enceinte has been found also in Thucydides 1.89.3: Ἀθηναίων δὲ τὸ κοινόν . . . τὴν πόλιν ἀνοικοδομεῖν παρεσκευάζοντο καὶ τὰ τείχη· τοῦ τε γὰρ περιβόλου βραχέα εἰστήκει ("The Athenian people . . . began . . . to rebuild the city and the walls; for of the encircling wall only small portions were left standing"). We are informed here that the destructive assault by Mardonios had left some standing remnants of preexisting walls. In his description of the hasty construction of the Themistoklean circuit wall, Thucydides notes the larger area of the new fortification in comparison with the old: μείζων γὰρ ὁ περίβολος πανταχῆ ἐξήχθη τῆς πόλεως, καὶ διὰ τοῦτο πάντα ὁμοίως κινοῦντες ἡπείγοντο (1.93.2) ("For the circuit wall of the city was extended in every direction, and on this account they laid hands upon everything alike in their haste"). On the evidence of this passage, the new wall encircled the city of Athens, and perhaps also a smaller, preexisting enceinte.  $^{12}$ 

The existence of an Archaic enceinte at Athens may be further supported by Thucydides' account of events that preceded the assassination of Hipparchos in 514 B.C. (6.57). The soon-to-be tyrannicides were able to watch Hippias as he was preparing for the procession of the Panathenaia at a location that Thucydides describes as ἔξω ἐν τῷ Κεραμεικῷ καλουμένω ("outside the walls, in the place called the Kerameikos"). 13 Believing that they had been betrayed, they then changed their plan of action and "rushed within the gates" (ὥρμησαν ἔσω τῶν πυλῶν), and their assassination of Hipparchos was carried out at the Leokoreion. According to this account, the two stages of action took place in two parts of the lower city, one outside and the other inside the walls, and the tyrannicides moved through "the gates" in proceeding from the first location to the second.14 Aristotle, on the other hand, testifies that Hippias was waiting for the Panathenaic procession on the Acropolis (Ath. Pol. 18.3). Comparison of these two passages raises the question of which gates the tyrannicides had entered: gates in the wall of the Acropolis or in the Archaic city wall?

#### DATING AND COURSE OF THE WALL

Drawing on information in these ancient passages, and on other evidence, scholars who have accepted the existence of an Archaic enclosure have made a variety of suggestions regarding its dating and course. So, for example, Eugene Vanderpool associated the wall with the reorganization of the festival of the Great Panathenaia (566 B.C.), proposing a date for the wall of around 560 B.C. or slightly earlier, and R. G. A. Weir set the Archaic wall in the context of the construction program of Peisistratos and his sons (536/5–511/10 B.C.). Judeich's support for the existence of an Archaic enclosure was based on ancient testimony that burials were prohibited *intra urbem* before the Classical period, and more specifically, as early as the purification of Athens after the Cylonian affair. Judeich concluded that the Archaic wall was constructed at some point between the 7th and 6th century B.C.<sup>16</sup>

Pivotal evidence for distinguishing sepulturae intra urbem and intra muros was provided by the discovery of an Archaic cemetery in 1951 on the northwestern slope of the Areiopagos. Its excavator, Rodney Young, dated the end of its use to around 500 B.C., and connected that date to

- 12. Hornblower 1991, p. 138.
- 13. Dörpfeld (1937, p. 28), not convinced of the existence of an Archaic Athenian wall, favored interpreting Thucydides' phrase ἔξω ἐν τῷ Κεραμεικῷ, as meaning ἐν τῷ ἔξω Κεραμεικῷ, by which Thucydides would be referring to the area of the 6th-century city extending beyond the 5th-century Themistoklean Wall. However, the distinction between "within" and "beyond" the Kerameikos was introduced much later than Thucydides' account by modern topographers; see *Agora* III, p. 224.
- 14. For discussion of the topography related to these events, see Lang 1954–1955, pp. 404–406; Brunnsaker 1971, pp. 8–16. Some apparent discrepancies in Thucydides' account are reviewed in Lang 1954–1955 and Winter 1971, pp. 62–63.
- 15. Vanderpool 1974; Weir 1995, pp. 257–258.
  - 16. Judeich 1931, pp. 120-122.

the prohibition against burials *intra urbem*. He reasoned, further, that the enforcement of this regulation presumed the prior existence of a circuit wall, which, on his interpretation, would have already been built between the reemergence of Peisistratos in 546 B.C. and the assassination of Hipparchos in 514 B.C.<sup>17</sup> Advocates for the Archaic city wall have elsewhere suggested that its dating coincided with the establishment of the city's public center, which would have been enclosed by a circuit wall.<sup>18</sup>

In terms of the course of the Archaic wall, Judeich proposed that, in the south, it ran westward from Hadrian's Arch to the Hill of the Muses, then northward to Kolonos Agoraios as far as today's Ermou Street. <sup>19</sup> As reconstructed by Travlos, the wall encompassed a smaller area, whose western limit was on the hill of Kolonos Agoraios, and which formed a circular shape around the Acropolis. The wall ran along the south bank of the Eridanos River, along today's Adrianou and Vyronos Streets, then southward along the modern street of Apostolou Pavlou, and finally along Dionysiou Areopayitou, thus forming an arc along the western flank of the Areiopagos. <sup>20</sup>

Based on the premise that Archaic city walls rarely extended pari passu with an Archaic city, F. E. Winter has proposed that the Archaic city wall of Athens would have protected only part of the inhabited city, "including little more than the middle and lower slopes of the Acropolis and the Areopagus."21 In his interpretation, the northernmost stretch of the Archaic enceinte would have passed between the Eleusinion and the subsequent South Stoa I. According to Manolis Korres, the course of the Archaic wall should instead be sought in the area of the city that was expropriated in the Classical period and left unbuilt, to be put to public use. The course of the Archaic city wall would then coincide on the east with today's Tripodon Street, and from the southern end of that street would have extended westward along the south side of the Stoa of Eumenes. The northernmost course of the wall would have followed Plateia Odos, which lay to the east of the Tower of the Winds, and would have proceeded westward through the line of the two propyla of the Roman Agora, past the south end of the Stoa of Attalos, and on to the northwest corner of the Agora of the Classical era, thus encircling the Areiopagos.<sup>22</sup>

### THE FUTURE OF THE DEBATE

Although our current evidence for an Archaic city wall at Athens is inconclusive, eventual confirmation of its existence seems likely. The absence of secure remains of an Archaic circuit wall certainly does not by itself settle the question of whether the city of Athens was fortified in the 6th century B.C.<sup>23</sup> While there are no ancient testimonia that indisputably attest the existence of an Archaic enclosure, the testimony of Thucydides regarding the pre-Persian fortification walls is difficult to dismiss. In the passages from Thucydides cited above, the enclosure is described in terms of its preservation soon after the Persian invasion (τοῦ τε γὰρ περιβόλου βραχέα εἰστήκει, 1.89.3), is compared to a relatively smaller one (μείζων περίβολος, 1.93.2), and is made a topographical landmark of the lower city in a recounting of the movements of the tyrannicides from an area ἔξω ἐν τῷ Κεραμεικῷ καλουμένῳ to an area ἔσω τῶν πυλῶν (6.57). These passages provide significant evidence of a fortification wall during the Archaic period.

17. Young 1951, pp. 132–133.

18. Travlos 1960, pp. 40–42; Travlos, *Athens*, p. 158. For recent discussion of the city's public center in the Archaic period, see Robertson 1998; Papadopoulos 2003, pp. 282–288; Schmalz 2006.

19. Judeich further proposed that the remains of the Archaic enclosure survived until the time of Hadrian, and that the Arch of Hadrian was in the same position and orientation as the Archaic gate. As evidence for this continuity, he notes the asymmetry of the newer construction in relation to the Olympieion. See Judeich 1931, pp. 123–124, plan IV.

20. Travlos 1960, p. 41; Travlos, *Athens*, p. 8, fig. 5.

21. Winter 1982, p. 203.

22. Korres 2002, pp. 6–7.

23. The absence of remains has been attributed to reuse of the blocks after the Archaic wall's demolition; see Weir 1995, pp. 253-255, n. 26. As discussed below (pp. 104-105), material taken from Archaic buildings was extensively reused for the construction of the stone socle of the Themistoklean Wall. But if the Archaic wall was built in lesbian or polygonal masonry, which might have been the usual style before the Persian Wars (Scranton 1941, pp. 43-44; Winter 1971, p. 81), reusing those blocks in the construction of a different wall would have been extremely difficult, and particularly so under the urgent circumstances associated with the construction of the Themistoklean Wall. I wish to thank Charalampos Bouras for helpful discussion on these points.

In addition, recent research that locates the Archaic Agora along the northeastern and eastern side of the Acropolis suggests that the course of the Archaic Athenian city wall should be sought within a zone that extended around the Acropolis. The debate on a possible Archaic wall might be advanced by new evidence from additional archaeological data and by new research on Archaic Athens.

# PHYSICAL REMAINS OF THE CITY WALL: THE SOURCES

Our study now turns to the physical remains of the city wall during the long period of its history. The greater part of this evidence was recovered during three periods of intense rebuilding in the historical center of the modern city—in the 1870s and 1880s, between the two world wars, and in the 1960s and 1970s—when new material came to light primarily in rescue excavations conducted by the Greek Archaeological Service.<sup>24</sup> Sections of the city wall have also been uncovered in excavations carried out by foreign archaeological schools on the Hills of the Muses, the Pnyx, and the Nymphs, in the Agora, and in the Kerameikos.<sup>25</sup>

Reports of these investigations have been presented since the mid-19th century in various publications, often in incomplete form. Information from the earliest of these excavations, at the end of the 19th and the beginning of the 20th century, is published largely in articles in the *Archaiologike Ephemeris*. The excavations of the Archaeological Society at Athens during the 1950s are published in *Praktika*, and reports of excavations conducted after 1960 are published in the second series of the *Archaiologikon Deltion*. The Travlos Archive, which is housed at the Archaeological Society at Athens, has proven to be a valuable source of information for research on the Athenian city wall. It is particularly informative about archaeological research conducted between 1929 and 1974, and includes Travlos's sketches and plans of the excavation sites as well as photographic material collected in his research on the city walls.

Rescue excavations of the Athenian wall have been hindered by the limited space and time allotted to excavation and by various other technical difficulties, and these in turn have impeded thorough documentation of the evidence. Moreover, however efficiently and professionally the rescue excavations of the ancient Athenian wall have been carried out, their discontinuity provides information less comprehensive than can be obtained in continuous excavation. These obstacles, the information presented in publications of these rescue excavations has been generally incomplete.

Excavation diaries, photographs, and plans produced during the rescue excavations of the Athenian city wall are filed in the Archaeological Archive of the 3rd Ephoreia of Prehistoric and Classical Antiquities (EPCA). At the present time, these records are generally inaccessible because the wall is currently under study by archaeologists of the Greek Archaeological Service. Additional information on the excavations is housed in the Administrative Archive of the 3rd EPCA. Personal autopsy of the physical remains has supplemented my study of these records.

- 24. Between 1920 and 2007, the number of securely dated rescue excavations involving the Athenian city wall are, by decade, in the 1920s: 5, 1930s: 1, 1940s: 3, 1950s: 21, 1960s: 48, 1970s: 30, 1980s: 12, 1990s: 25, 2000s: 3. Rescue excavations of unknown date before 1960: 3. (Total: 151.)
- 25. Crosswall (diateichisma) on the hills: Thompson 1936, pp. 193–200; Thompson and Scranton 1943, pp. 301–379. Post-Herulian Wall in the Agora: Agora XXIV, pp. 125–141. Themistoklean Wall in the Kerameikos: Knigge 1991, pp. 49–73, 76–79; Löringhoff 1995; Kuhn 1995.
- 26. For example, the excavation of Classical graves in 1957 near Syntagma Square on the land plots located at Stadiou 3 and Karayiorgi Servias 4 "was carried out at the same time as the demolition, at the beginning, and later, together with the digging of the foundations as well as the construction of the building" (Charitonidis 1958, p. 2).
- 27. On rescue excavations and the pressure placed on the archaeological staff in the interest of timely completion of public works, see Karageorga-Stathakopoulou 1988, esp. pp. 87–94.
- 28. The reports of rescue excavations in *ArchEph*, *Prakt*, and *ArchDelt* generally take the form of preliminary memos, a practice criticized by Charitonidis (1958, p. 126).

Information obtained from these sources has been used in the present study to document all known recovered remains of the Athenian city wall, and Appendix 2 assembles that documentation. Where available, the details that underlie this study include the location and preserved dimensions of each find, information concerning its excavation, and the construction techniques and assigned date of each element of the fortification. On the basis of this evidence, the balance of the present article constitutes a summary of the reconstructed courses of the Athenian city wall and the phases of its construction.

### COURSES OF THE CITY WALL

Between the mid-19th century and 2009, when I completed the research for this study, remains of the city wall had been revealed at 166 locations. In Table 1, these locations are keyed to present-day street addresses on the Athenian city map and each set of remains is assigned an alphanumeric code, in which the letter designates the specific wall to which the remains are attributed (e.g., "V" represents "Valerian"). These codes appear also on the accompanying foldout map of the Athenian circuit wall (Fig. 1), where they indicate the locations of the known physical remains. On this map, the remains of four distinct courses of the Athenian city wall—the Themistoklean, the *diateichisma*, the Valerian, and the Post-Herulian—have been color-coded to distinguish their locations and to show their interrelations. Enlargements of five areas are also shown (Fig. 1:a-e).<sup>29</sup>

The physical remains of the city wall that are depicted in Figure 1 are based on photocopies of 104 plans, primarily published in the *Deltion* and *Praktika*; 20 of the plans come from the Travlos Archive. All plans were digitized, transferred to the Geographic Information System (GIS) by means of geocoding, and were assigned coordinates defined by the Hellenic Terrestrial Reference System (HTRS87).<sup>30</sup> They were then entered into a digital and vectorial database of the Athens urban plan designed by the NTUA in 2004. Measurements were checked against the Global Positioning System (GPS) in cooperation with the Higher Geodesy Laboratory of the NTUA.

Where physical remains are lacking, the hypothetical course of some stretches of the city wall has been indicated on the map. Reconstruction of these stretches of the wall has been attempted only where associated physical remains of the wall, *proteichisma*, moat, retaining walls, or roads provide evidence for the wall's original course. In the case of the Valerian Wall, I have made no indication of its hypothetical course at the few locations where its physical remains overlay those recovered along the Themistoklean course. The line depicting the western limit of the Themistoklean Wall, to the west of the Hills of the Muses, the Pnyx, and the Nymphs, reproduces the line published by Travlos in the *Bildlexikon*, since no finds have been subsequently excavated in the area.

29. The production of the map (and enlargements) printed in Fig. 1 was a joint project between cartographer Maria Pigaki of the Higher Geodesy Laboratory of the National Technical

University of Athens (NTUA) and the author. I wish to thank her for designing and generating the map; this project could not have been completed without her.

30. The map was created with ArcGIS version 9.2. For further details on the production of the map, see Theocharaki 2007, pp. 575–577 (appendix).

TABLE 1. LOCATIONS OF ATHENIAN CITY WALL REMAINS

Map Code	Location	Gate	Postern	Curtain Wall	Tower	Proteichisma	Moat	Moat/Road	Ketaınıng Wall	Moat Retaining Wall (Outer)	Internal Ring Road	External Ring Road	Second External Ring Road	Incoming Road	Road Retaining Wall	Unknown Fortification Elements
Тнемізтокі	EAN COURSE															
Th1	Kerameikos	X	X	×	×	×	×	×	П	×		×		×	П	
Th2	Ayion Asomaton 33 and Psaromilingou 21 (land plot)			X		×			$\exists$			П				
Th3	Ayion Asomaton (road surface)			X					$\exists$			П				
Th4	Ayion Asomaton 22 and Dipylou 12–14 (land plot)			X	X	X	×		$\dashv$	×		×			П	
Th5	Dipylou and Leokoriou (road surface, south)	×		×	X		×		$\exists$					X		
Th6	Dipylou and Leokoriou (road surface, north)			×					$\exists$			Н				
Th7	Dipylou 13 (road surface)					X			$\exists$			Н				
Th8	Dipylou 11 (land plot)			×					$\dashv$			×			$\dashv$	
Th9	Dipylou 5–7–9 (land plot)			×			X		$\dashv$		×	×			×	
Th10	Dipylou 3 (land plot)						X		$\dashv$		^	^			Ĥ	
Th11	Plateia Eleutherias (Koumoundourou) 16 and Kriezi						Ĥ		$\dashv$			Н			$\dashv$	
11111	(land plot)						×									
Th12	Evripidou 91 and Sachtouri 10 (land plot)			×							×				П	
Th13	Evripidou 87 (land plot)										×				П	
Th14	Evripidou 90 (land plot)	?				×	×	X				П		5	П	
Th15	Sapphous 7–9 (land plot)					×	×								П	
Th16	Sapphous 5 (land plot)			×							×				×	
Th17	Sapphous and Menandrou (land plot)				×	×	×		$\exists$			П				
Th18	Plateia Theatrou (land plot)			×					$\exists$			П				
Th19	Sokratous 17 (land plot)			X		×	×		$\exists$			П			$\Box$	
Th20	Sokratous 17 (road surface)					×			7			Н			$\Box$	
Th21	Sokratous 10 and Sophokleous 33 (land plot)					X	×		$\dashv$			Н			П	
Th22	Sophokleous 29–31 (land plot)					X	×		$\dashv$			Н			$\Box$	
Th23	Sophokleous 23 and Athinas (road surface)			×					$\exists$			Н				
Th24	Athinas 48 and Sophokleous (land plot)						×		$\exists$			Н				
Th25	Aiolou 93 and Sophokleous (Mela building)			×					$\dashv$			Н			$\dashv$	
Th26	Aiolou 93 and Sophokleous (road surface)			×		X	X		$\dashv$	×		×			$\dashv$	
Th27	Aiolou 82–84 and Sophokleous (National Bank of Greece)	×		×		X	X	×	$\dashv$	×		X	×	X	$\Box$	
Th28	Aristeidou 14 and Pesmazoglou (road surface)					×	^		$\dashv$			X		^	$\Box$	
Th29	Aristeidou 14 and Pesmazoglou (land plot)			×		×	X		$\dashv$			×			$\Box$	
Th30	Aristeidou 10–12 (land plot)			×		X	^		$\dashv$			^			$\Box$	
Th31	Stadiou 29 (land plot)					_	X		$\dashv$	×		Н			$\Box$	
Th32	Dragatsaniou 6 (land plot)	×		×		×	×	×	$\dashv$			Н		5	$\Box$	
Th33	Dragatsaniou 6 (road surface)	^		^		×	_		$\dashv$			Н		-	$\dashv$	
Th34-Th34.1	Plateia Klauthmonos			×		×	×		$\dashv$		×	X			$\Box$	
Th35	Paparrigopoulou 5–7 (land plot)			^	^		Н		$\dashv$		^	^			$\Box$	
Th36	Christou Lada 5–7 (land plot)					×	×		$\dashv$			Н			$\dashv$	
Th37	Christou Lada and Anthimou Gazi (road surface)					×	X		$\dashv$			$\vdash\vdash$			$\dashv$	
Th38	Kolokotroni 3 (land plot)					^	×		$\dashv$			Н			$\dashv$	
Th39	Voulis 7 (land plot)						X		$\dashv$			$\vdash$			$\dashv$	
Th40	Karayiorgi Servias 3–5–7 and Nikis 2 (land plot)						X		$\dashv$			Н			$\vdash$	
Th41							X		$\dashv$			Н			$\dashv$	
	Ermou 8 (land plot)  Voulis 22 and Petraki (land plot)						X		$\dashv$			Н			$\vdash$	
TL 12		1	1		1	X	X			×	I	1 1		1		
Th42 Th43	Mitropoleos and Pentelis and Petraki (land plot)			×			H		$\dashv$		×	H			$\vdash$	

TABLE 1—Continued

Map Code	Location	Gate	Postern	Curtain Wall	Tower	Proteichisma	Moat	Moat/Road	Retaining Wall	Moat Retaining Wall (Outer)	Internal Ring Road	External Ring Road	Second External Ring Road	Incoming Road	Road Retaining Wall	Unknown Fortification Elements
Тнемізток	LLEAN COURSE															
Th45	Voulis and Apollonos (road surface)					×	×			×						
Th46	Voulis and Apollonos and Skouphou (land plot)					×	×									
Th47	Nikis 24 (land plot)						×									
Th48	Nikis 30 (land plot)					×	×					×				
Th49	Nikis 27 (land plot)					×	×									
Th50	Nikis and Navarchou Nikodimou and Skouphou (road surface)			×	×											
Th51	Nikis 31–33 (land plot)						×									
Th52	Lamachou 3 (land plot)						×	×						×		
Th53	Amalias and Philellinon (land plot)		Г		Т		X					Г			Г	
Th54	Amalias 32–34 (road surface)			X												
Th55	Vasilissis Olgas (road surface, north of the Olympieion)						×									
Th56	West of the <i>propylon</i> of the Olympieion	×		×			×							×		
Th57	Athanasiou Diakou 26 (land plot)			×												
Th58	Iosiph ton Rogon 8 (road surface)	×		X	×											
Th59	Iosiph ton Rogon 14 and Lempesi 19 (land plot)															×
Th60	Vourvachi 5–7–9 (land plot)			×		×	×	×		×		×			×	
Th61	Vourvachi 3 (land plot)			×												
Th62	Vourvachi 3 (road surface)	+		×												
Th63	Vourvachi 1 (road surface)	+		×												
Th64	Vourvachi 2 and Syngrou (road surface)	+		×												
Th65	Vourvachi 2 and Syngrou 21 (land plot)	+		×			X									
Th66	Syngrou 23 (land plot)	+		×	$\vdash$	×	X		$\neg$			X				
Th67	Syngrou 25 (land plot)	+		×		^	<u> </u>					×				
Th68	Koryzi 6 (land plot)			<u> </u>	X	×	×		$\dashv$			×			X	
Th69	Koryzi 8 (land plot)	+			╁ <u>^</u>	×	×		$\dashv$			Ĥ			Ĥ	
Th70	Syngrou 29 and Negri (land plot)	+		$\vdash$	$\vdash$	×	×		$\dashv$		$\vdash$					
Th71	Syngrou 38–40 (road surface)	+		×	$\vdash$	Ĥ	×				$\vdash$					
Th72	Syngrou 33 and Donta (land plot)	+		┢	$\vdash$	$\vdash$	Ĥ		$\dashv$		$\vdash$					
Th73	Donta 3 (road surface)	+		×	$\vdash$	$\vdash$			$\dashv$		$\vdash$					×
Th74	Syngrou 44 and Donta (land plot)	+		^		×	×		$\dashv$							
Th75	Phalirou 8 (road surface)	+		$\vdash$	$\vdash$	×	Ĥ		$\dashv$		$\vdash$					
Th76	Phalirou 8 and Dimitrakopoulou 7 (land plot)	+		$\vdash$	$\vdash$	×	×									
Th77	Veikou 14 and Misaraliotou 2 (land plot)	+		×	×	×	Ĥ					×				
Th78	Misaraliotou 2 (road surface)	+	$\vdash$	×	<u>  ^</u>	Ļ	$\vdash$		$\dashv$		$\vdash$	<u> </u>		$\vdash$		
Th79	Misaraliotou 2 (toad surface)  Misaraliotou 1 (road surface, north)	+		×	$\vdash$	×	×		$\dashv$		$\vdash$			H		
Th80	Tsami Karatasou 5–7–9 (road surface)	+	$\vdash$	×	$\vdash$	<del> </del> ^	L^		$\dashv$		$\vdash$			$\vdash$		
Th81	Tsami Karatasou 5 7 7 (load surface)  Tsami Karatasou 5–7 (land plot)	+	$\vdash$	×	×	×	×				$\vdash$	×		$\vdash$		
Th82	Tsami Karatasou 10 (land plot)	+	$\vdash$	×	Ĥ	⊬	Ĥ				$\vdash$	Ĥ		$\vdash$		
Th83	Parthenonos 12 (land plot)	+	$\vdash$	×	×	$\vdash$	$\vdash$				$\vdash$	$\vdash$			$\vdash$	
Th84	Parthenonos 10–12 (road surface)	+	$\vdash$	×	Ĥ	×	$\vdash$				$\vdash$			$\vdash$		
Th85	Parthenonos 19–25 (land plot)	+	×	×	×	Ĥ	$\vdash$		$\dashv$		$\vdash$	$\vdash$		×	×	
Th86	Erechtheiou 20 (land plot)	+	<u> </u>	×	<u>  ^</u>	$\vdash$	$\vdash$		$\dashv$		$\vdash$	$\vdash$		Ĥ	<u> </u>	
Th87	Erechtheiou 20 (rand piot)  Erechtheiou 20–22 (road surface)	+		×	$\vdash$	$\vdash$			$\dashv$		$\vdash$			H		
Th88	Erechtheiou 18 (land plot)	+	-	×	×	×	×	×			$\vdash$	-		$\vdash$	$\vdash$	

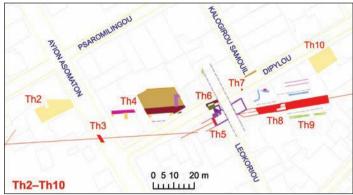
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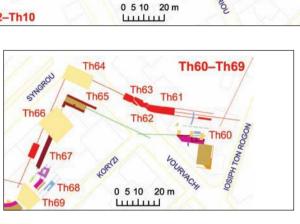
TABLE 1—Continued

	-Gontinued	1	_	_	1						_	_	1			
Map Code	Location	Gate	Postern	Curtain Wall	Tower	Proteichisma	Moat	Moat/Road	Retaining Wall	Moat Retaining Wall	Internal Pine Road	External Ring Road	Second External Ring Road	Incoming Road	Road Retaining Wall	Unknown Fortification Elements
Тнемізтокі	ean Course															
Th89-Th89.1	Erechtheiou 25 (road surface)	×		×	I							Т		×		
Th90	Erechtheiou 25 (land plot)			X								+			$\Box$	
Th91	Erechtheiou 21–23 (land plot)			X								+			$\Box$	
Th92	Propylaion 34 (land plot)			X								$\top$			П	
Th93	Sophroniskou 9 and Drakou 40 (land plot)			X								$\top$			$\Box$	
Th94	Drakou and Mouson (road surface)			X	×							$\top$			$\Box$	
Th95	Drakou 44 (road surface)			X								$\top$			П	
Th96	Southwestern foot of the Hill of the Muses			X	×							$\top$			П	
Th97	Avanton 6 (land plot)											$\top$			$\Box$	×
Th98	Erysichthonos 31 (land plot)											$\top$			$\Box$	×
Th99	Erysichthonos 29 and Nileos (land plot)			X	×						×				П	
Th100	Erysichthonos 29 and Nileos (road surface)				×										П	
Th101	Erysichthonos 27 (land plot)										×				П	
Th102	Erysichthonos 25 (road surface)			X											П	
Th103	Erysichthonos 20–24 (land plots)			X	×										П	
Th104	Erysichthonos 18 (road surface)			×											П	
Th105	Irakleidon 54 and Erysichthonos (pedestrian walkway)				×	×	×					×			П	
Th106	Erysichthonos 17 (road surface)			×											П	
Th107	Erysichthonos 17 and Irakleidon 52 (land plot)			×	×							T			П	
Th108	Irakleidon 50 (land plot)	×												×	×	
Th109	Erysichthonos 15 (land plot)			×	×	×	×					×		×	П	
Th110	Erysichthonos 13 (land plot)					×	×								П	
Th111	Poulopoulou 37 (land plot)			×												
Th112	Poulopoulou 37 (road surface)				×											
Th113	Poulopoulou 39 (road surface)															×
Th114	Erysichthonos 7 (land plot)			×	5											
Th115	Eptachalkou and Ephestion (road surface)			X	×											
Diateichisi	MA COURSE															
D1	Hills of the Muses, the Pnyx, and the Nymphs	Τ	Ι	Ι	Ι						$\top$		T	Ι		
DI	Tims of the Muses, the Fnyx, and the Tymphs	×	×	×	×									X	Ш	
EASTERN VA	LERIAN COURSE															
V1	Old Parliament Building			×												
V2	Kolokotroni 1 (road surface)			X												
V3	Kolokotroni 1 and Stadiou (Old Kostis Residence)			X												
V4	Stadiou (road surface)			X												
V5	Stadiou and Voukourestiou and Panepistimiou and			×	×											
17/	Amerikis (land plot)	-			ļ^		Щ				+	1	1	_	Ш	<b></b>
V6	Voukourestiou (road surface)	-		X							$\perp$	$\bot$	1	_	Ш	<b></b>
V7	Voukourestiou 6 (Hotel Grande Bretagne)	-		X	X						+	1	-	1	Ш	<b>——</b>
V8	Vasilissis Sophias and Panepistimiou 2 (land plot)	-		X	X						$\perp$	1	-	1	Ш	<b>——</b>
V9	Vasilissis Sophias (road surface, north of Parliament)	-		X							+	$\bot$	-		Ш	<b>—</b>
V10	Vasilissis Sophias (pedestrian walkway, opposite Merlin Street)				×											
V11	National Garden (Metro trench)			X												
V12	National Garden (west of Lykeiou Street)			×											ΙП	

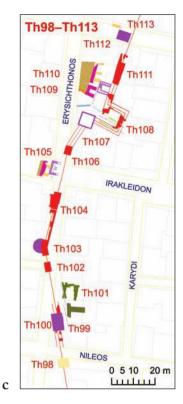
TABLE 1—Continued

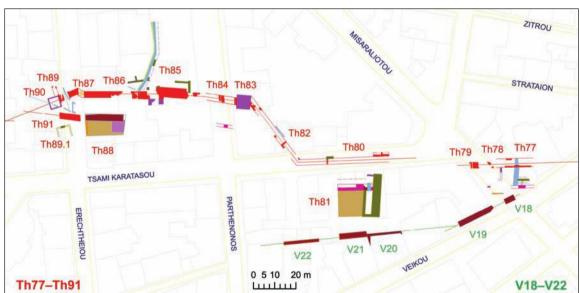
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Map Code	Location	Gate	Postern	Curtain Wall	Tower	Proteichisma	Moat	Moat/Road	Retaining Wall	Moat Retaining Wall (Outer)	Internal Ring Road	External Ring Road	Second External Ring Road	Incoming Road	Road Retaining Wall	Unknown Fortification Elements
EASTERN VA	ALERIAN COURSE															
V13	Irodou Attikou and Vasileos Yeoryiou II (road surface)	Ι		×			Ι	Π			Ι					
V14	National Garden precinct (on the Stadium axis)			X												
V15	Vasilissis Olgas (road surface, east of the Olympieion)			X												
V16	South of the Olympieion precinct	×		×	X									×		
V17	Athanasiou Diakou 28–32 (land plot)			X	×							П				
0 1	•	1									1					
	Valerian Course		_	_			_									
V18	Misaraliotou 1 (road surface, south)			×								Ш			$\square$	
V19	Veikou 16 (land plot)		L	×								Ш			Ш	
V20	Veikou 24–26 (land plot)		L	×								Ш			Ш	
V21	Veikou 28 (land plot)			×								Ш			Ш	
V22	Veikou 32 (land plot)			X								Ш			Ш	
Post-Heru	LIAN COURSE															
PH1	North Slope of the Acropolis (Klepsydra)	Τ		×			Γ				Τ					
PH2	Athenian Agora	×		X	X							Н				
PH3	Adrianou 46 and Vrysakiou (land plot)			X								Н				
PH4	Krevvata 14 (property of the Museum of Greek Popular Art)			×												
PH5	Library of Hadrian (west of the south wing)			×												
PH6	Library of Hadrian (along the west facade, south of the propylon)			×												
PH7	Library of Hadrian (southern auditorium)			×												
PH8	The Medrese			×												
PH9	Adrianou 72 (land plot)			×												
PH10	Adrianou 74 (land plot)			×												
PH11	Adrianou 78 (land plot)			×	×											
PH12	Adrianou 80 (land plot, Church of the Panayia Krystalliotissa)	×		×	?											
PH13	Adrianou 84 and Mnisikleous (land plot)			×												
PH14	Mnisikleous (road surface between Adrianou 84 and 86)			×												
PH15	Adrianou 86 and Mnisikleous (land plot)			X												
PH16	Adrianou 88B (land plot)			×												
PH17	Adrianou 88A (land plot)			×												
PH18	Adrianou 92 (land plot)			×												
PH19	Adrianou 94 (land plot)	Γ	×	×							Γ					
PH20	Adrianou 96 (Old Benizelou Residence)			×												
PH21	Adrianou 98 and Dioyenous (land plot)			×	X											
PH22	"Diogeneion Gymnasion"			×												
PH23	Kyrristou and Phlessa 4 (land plot)			×	X											
PH24	Theater of Dionysos (western section of the retaining wall of the cavea)			×												
PH25	Stoa of Eumenes (north wall)	Ĺ	Ĺ	×							Ĺ					
PH26	Odeion of Herodes Atticus (south wall)			×												
PH27	Serpentzé Wall (western section, north of the Odeion of Herodes Atticus)			×												
PH28	Area of the Beulé Gate	×		×	×				Ī						ıΙ	





b





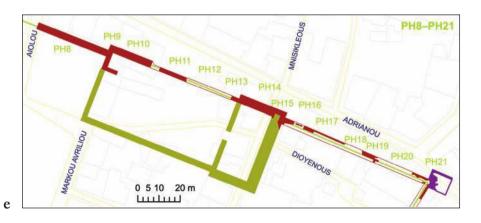


Figure 1 (opposite and above). Remains of the Athenian circuit wall and suggested reconstruction of its courses. Themistoklean course (red), diateichisma course (orange), Valerian course (dark green), Post-Herulian course (bright green). Map enlargements: (a) Th2-Th10; (b) Th60-Th69; (c) Th98-Th113; (d) Th77-Th91 and V18-V22; (e) PH8-PH21. A. M. Theocharaki and M. Pigaki

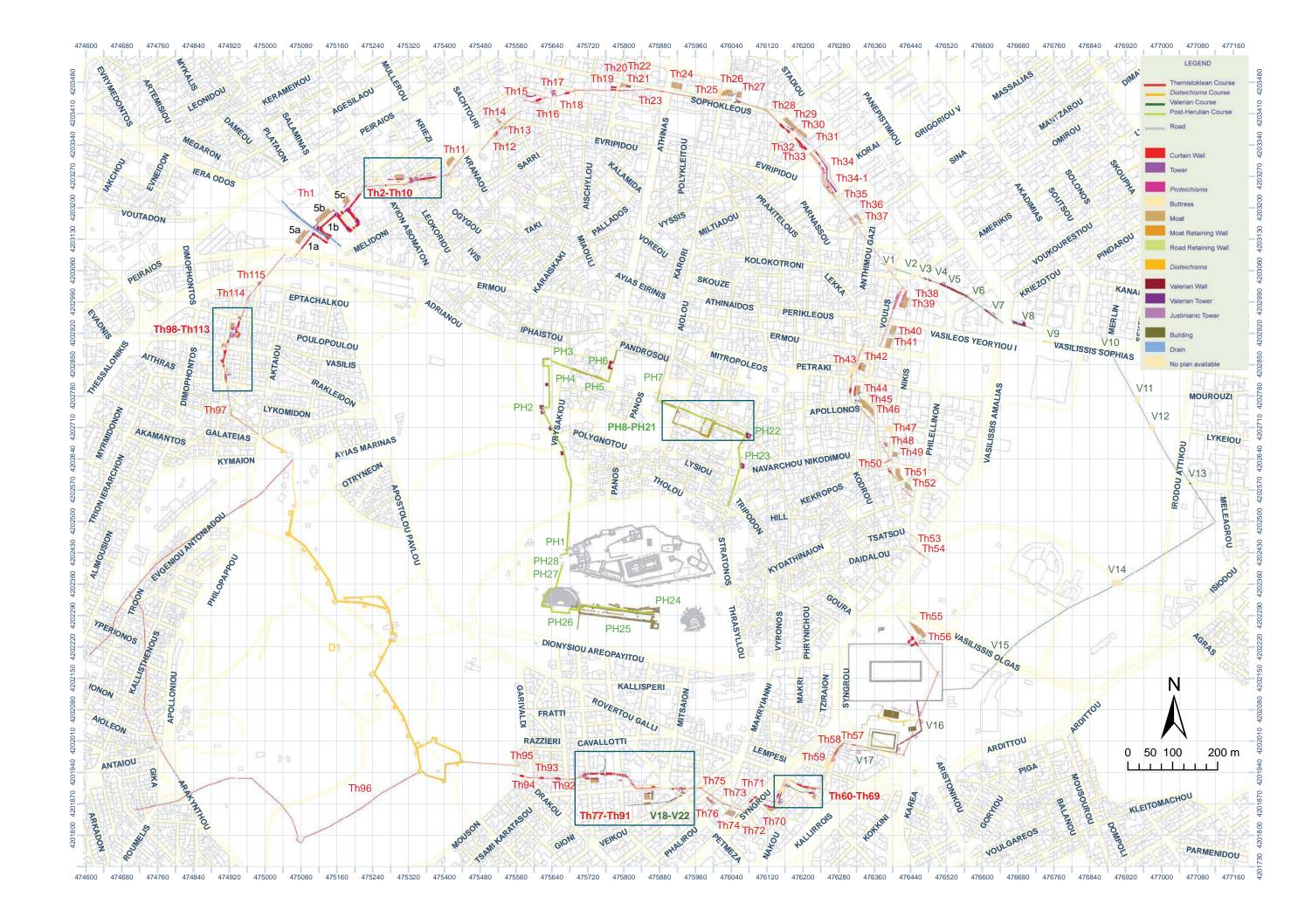




Figure 2. Themistoklean course, Kerameikos (Th1), curtain wall 1a; view from the north. Photo A. M. Theocharaki

# THEMISTOKLEAN COURSE

The Themistoklean Wall, erected in 479/8 B.C., was repaired and reconstructed throughout antiquity. Construction activities carried out along this course in successive periods are discussed below (pp. 104–137). Of the 166 locations where remains of the city wall have been documented throughout the modern city, 115 have been traced along the line of the Themistoklean Wall (Fig. 1, red line).

Setting out from the northwest, we follow the reconstructed course of the Themistoklean enclosure as it passes northeastward through the area of the Kerameikos (Th1; Fig. 2) and heads eastward over the street of Ayion Asomaton (Th3; Fig. 1:a) and along Dipylou Street (Th8, Th9; Fig. 1:a). Between Sapphous 5 (Th16) and Sophokleous Street (Th27), we encounter its northernmost points. The enclosure then bends southward to run along the eastern side of the city, cutting through Plateia Klauthmonos (Th34) and continuing southeastward to the junction of Kolokotroni (Th38) and Voulis (Th39) Streets. From that point, it turns to the southwest, tracing the western edge of Syntagma Square. At Th44, close to where the Eridanos River entered the city, the circuit turns back to the southeast and, after passing east of the Olympieion (Th56), begins its westward course toward Syngrou Avenue (Th71). Running along Tsami Karatasou Street (Th80) and crossing over Parthenonos (Th85) and Erechtheiou (Th86) Streets (see Fig. 1:d), it ascends the Hill of the Muses, and descends to the southwestern foot of the hill (Th96) and into the modern district of Petralona. Stretches of the wall that extend northward from this area can be traced along Erysichthonos Street (Th98-Th110) and at the intersection of Ephestion and Eptachalkou Streets (Th115), and the circle is finally completed on entering the district of the Kerameikos.

### DIATEICHISMA COURSE

Close to the beginning of the 3rd century B.C., a second line of fortification, the *diateichisma*, was constructed along the crest of the Hills of the Muses, the Pnyx, and the Nymphs (Fig. 1, orange line). It eventually replaced the western section of the Themistoklean city wall, thereby shortening the length of the wall in this area by some 690 m.<sup>31</sup>

### VALERIAN COURSE

In the 3rd century A.D., the Athenian circuit wall underwent extensive reconstruction, constituting what is today designated as the Valerian Wall. This new line of defense ran along the Themistoklean course in the northern and southern sectors of the enceinte, and incorporated the *diateichisma* in the west; in the east, where it is designated as the eastern Valerian Wall (Fig. 1, dark green line, east), it was built on a new fortification line with a view to protecting the ancient city's urban expansion during the reign of the emperor Hadrian. The eastern addition included the area of today's Syntagma Square, the Greek Parliament building, and the National Garden, and it terminated against the east face of the Olympieion precinct.

The Valerian Wall deviated from the Themistoklean course also in the southern part of Athens, between today's Misaraliotou and Parthenonos Streets, where it forms the southern Valerian Wall (Fig. 1, dark green line, south). One east—west stretch of this wall, extending between locations V18 and V22, lies about 35 m south of, and nearly parallel to, a documented stretch of the Kononian Wall (Th80).<sup>32</sup>

The estimated length of the Themistoklean and the Valerian city walls is nearly equal, each measuring ca. 6,400 m.<sup>33</sup> Hence, in spite of the interval of seven centuries between the construction of the Themistoklean and Valerian walls, and notwithstanding the eastward extension of the newer circuit, the total area of the city contained within the walls was essentially unchanged.

### Post-Herulian Course

The final ancient addition to the Athenian fortification is the Post-Herulian Wall (Fig. 1, bright green line), constructed approximately 15–20 years later than the Valerian Wall, following the Herulian incursion into Athens in A.D. 267. Enclosing only a protected zone around the Acropolis, this new inner wall afforded a line of defense requiring only limited sentry.

31. Initially dated to the end of the 4th century B.C. (Thompson and Scranton 1943, pp. 333–337), construction of the *diateichisma* has been subsequently downdated, on the basis of the pottery, to between 300 and the mid-280s B.C. (Thompson 1982, p. 146, n. 44; Conwell 2008, pp. 178–182). The estimated change in the length of the

wall is calculated on the basis of the map reproduced in Fig. 1.

32. This deviation might have been occasioned by the need to extend the protection of the city wall to a large Roman building now recovered at Tsami Karatasou 5–7 (Th81; see Fig. 1:d, where the Roman building is indicated in green); see Lyngouri-Tolia 1990, p. 41.

33. The estimate is based on calculations derived from the map shown in Fig. 1. Ancient literary evidence for the length of the wall, including that of Thuc. 2.13.8, is discussed in, e.g., Judeich 1931, pp. 131–132, and Travlos 1960, pp. 49–50.

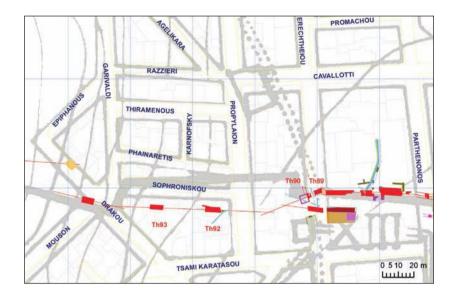


Figure 3. Themistoklean course, remains of curtain wall at Sophroniskou 9 (Th93) and Propylaion 34 (Th92) (thick red); revised reconstruction (thin red). Superimposed on Travlos's map (*Attika*, p. 34, fig. 29), geocoded. A. M. Theocharaki and M. Pigaki

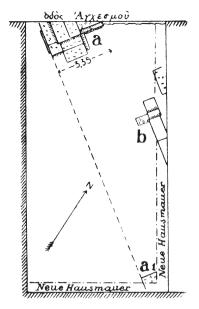
# COMPARISON WITH EARLIER PROPOSALS

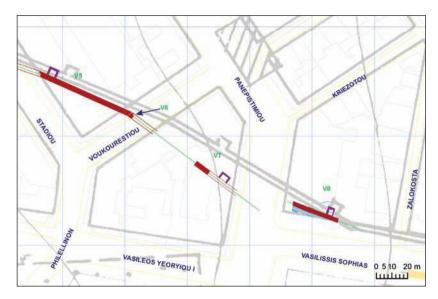
Comparison of the new map of the Athenian city wall with previously published plans and reconstructions reveals some immediate gains from the collection and mapping of all known archaeological remains of the wall. The physical remains discovered since 1981 require one significant alteration to the plan that Travlos had constructed.<sup>34</sup> Remains of the wall along the Themistoklean course recovered in the 1980s and 1990s east of the Hill of the Muses, at Sophroniskou 9 (Th93) and at Propylaion 34 (Th92), document a slightly more southerly position of the wall than he had proposed (Fig. 3).<sup>35</sup> It is possible that Travlos's reconstruction of the line of the wall in this area was based on the north-south orientation of a stretch of wall recovered at Th90, which had been identified by its excavator as a stretch of the Themistoklean Wall. 36 Evidence for the line of the Themistoklean course that is now documented at Th92 and Th93, however, might exclude the assignment of that north-south stretch to the line of the wall, and it perhaps should be assigned instead to the western flank of the gate at Th89.

Apart from this revision, the juxtaposition of the new plan with those proposed by Travlos and by earlier scholars raises some previously unconsidered topographical questions and several potential lines of further research. On the basis of excavations recorded in the new map presented here (Fig. 1), I propose three emendations of Travlos's mapping of the city wall.<sup>37</sup>

First, Travlos's reconstruction of the eastern Valerian Wall at the northeastern edge of the Athenian circuit, along the pedestrian walkway on Voukourestiou Street (V6), seems to omit some remains recovered in 1906 and recorded in a drawing by Noack (Fig. 4).<sup>38</sup> On our analysis of the geocoded plans of the excavations carried out at V6 and V7, fortification remains from these two sites belong to an almost continuous line of the eastern Valerian Wall.<sup>39</sup> Our mapping of this line departs from that of Travlos in recording a more southeastwardly shift in this stretch of the wall (Fig. 5).

- 34. Travlos, Attika, p. 34, fig. 29.
- 35. Kokkoliou 1997 (Th93); Lyngouri-Tolia 1990, p. 30 (Th92).
  - 36. Stavropoulos 1965, p. 86.
- 37. Comparison of the two maps was made possible by our digitization and geocoding of Travlos's map according to the coordinates given by the Hellenic Terrestrial Reference System. See above, p. 77, for the use of these coordinates in the preparation of the new maps.
- 38. Noack 1907, p. 510, fig. 24; Travlos, *Attika*, p. 34, fig. 29.
- 39. The stretch of the eastern Valerian Wall located at V7 was uncovered in the early 1920s during extensive construction work on the Hotel Grande Bretagne. Travlos's drawing of the excavated remains is preserved in the Travlos Archive, folder "Athens" B-148, 2 (Curtain wall and tower underneath the Hotel Grande Bretagne, 1927?).





Two more emendations are recommended by comparison of Travlos's plan with the new map produced during our research. Both concern stretches of the eastern section of the city wall along the Themistoklean course. We look first at locations Th38, Th39, and Th40 within the area defined by Karayiorgi Servias, Voulis, Kolokotroni, and Stadiou Streets (Fig. 1). The line of the city wall indicated on the plan of excavation at Voulis 7 (Th39) maintains the northeasterly orientation of the wall documented by the recovery of a moat trench at Th40, further to the south. <sup>40</sup> At a location to the north of and adjacent to Th39, at Kolokotroni 3 (Th38), the course of the wall takes a slightly more northeastward turn. <sup>41</sup> Travlos's representation of this line of the wall as making a distinct turn to the northwest, beginning at a point south of Voulis 7, overlooks the northeasterly orientation of the wall at Th38 and Th39 (Fig. 6).

This proposed reconstruction of a northeasterly orientation of the city wall immediately north of Th40, which departs from the expected circularity of the circuit, cannot be confirmed on the basis of preserved physical remains. Such evidence is absent from this area, in part because much of the eastern section of the wall fell into disuse after the construction of the eastern Valerian Wall, and some of its blocks were likely to have been used as building material for nearby constructions. 42 Physical remains along the Themistoklean course outside of this northeastern sector have shown, however, that the wall occasionally departed from a purely circular course. Evidence recovered in excavations at Sapphous 7–9 (Th15), in the northwestern sector of the wall, provides one such example (see Fig. 1).<sup>43</sup> These departures from the circular course of the wall clearly enlarged the enceinte and could possibly be connected with the formation of an opening in the wall, perhaps a gate. Dörpfeld and Judeich had suggested the location of a gate on the axis of Karayiorgi Servias Street, to the south of Th39, which they related to the presence of the large cemetery that lay further to the northeast.<sup>44</sup> Archaeological finds in the area, however, have not supported this suggestion.<sup>45</sup>

Further to the south of location Th40, our reconstruction of the Themistoklean circuit suggests a different course for another section of the

Figure 4 (left). Eastern Valerian course, remains at Voukourestiou Street (formerly Ὁδὸς Ἁγχεσμοῦ) (V6). Excavation plan. Noack 1907, p. 510, fig. 24

Figure 5 (right). Eastern Valerian course, remains at Voukourestiou Street (V6, arrow) (brown); revised reconstruction (dark green). Superimposed on Travlos's map (Attika, p. 34, fig. 29), geocoded. A. M. Theocharaki and M. Pigaki

- 40. Alexandri 1972, pp. 38–43, figs. 11, 12 (Th39). Travlos Archive, folder "Athens" A-147, 1 (Nikis and Karayiorgi Servias Streets; Miliadis excavation, March 27, 1956) (Th40).
- 41. Alexandri 1972, p. 67, fig. 32 (Th38). The excavation plan of Th39 (Alexandri 1972, p. 39, fig. 11) shows the continuation of the *proteichisma* and the moat into Th38.
- 42. At location Th39, excavation reached levels at which remains of the wall could have been expected; see Alexandri 1972, pp. 38–41. At location Th40, the bedrock rises nearly to the modern surface; see Vanderpool 1956, p. 267.
  - 43. Koumanoudes 1956.
- 44. Dörpfeld 1888, p. 232; Judeich 1931, pp. 142–143.
  - 45. Charitonidis 1958, pp. 129-130.

PERIKLEOUS

KARAYIORGI SERVIAS

Th39

Th40

SHOOL

Th39

Th40

SHOOL

Th39

Th40

SHOOL

TH40

TH40

TH40

SHOOL

TH40

Figure 6. Themistoklean course, remains in the area east of Voulis Street (Th38–Th40). Trench of the moat (tan) and foundation trenches of curtain wall (short red lines; see arrow) and of the *proteichisma* (purple lines west of moat); revised reconstruction (thin, red intersecting lines). Superimposed on Travlos's map (Attika, p. 34, fig. 11), geocoded. A. M. Theocharaki and M. Pigaki

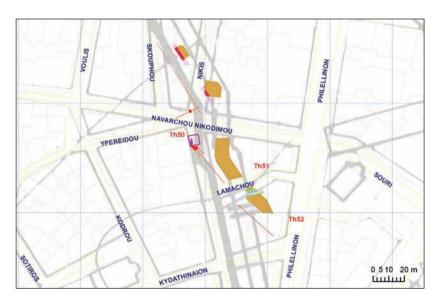


Figure 7. Themistoklean course, remains in the area of Nikis Street (Th50–Th52). Curtain wall (at top; thick red), tower (purple), trenches of moat (tan), and retaining walls for a road (green); revised reconstruction (thin red). Superimposed on Travlos's map (Attika, p. 34, fig. 29), geocoded. A. M. Theocharaki and M. Pigaki

city wall. We focus here on the area that extends southward from the intersection of Nikis and Navarchou Nikodimou Streets (Th50) to Lamachou 3 (Th52).<sup>46</sup> The fortification line between these two points was reconstructed by Travlos to lie in a generally north—south orientation (see Fig. 7). However, the excavation plan of location Th52, which depicts the remains of a moat and the retaining walls for a road, indicates that the course of the city wall at this location made a slight turn toward the southeast.<sup>47</sup>

The geocoding of plans and reconstructions of the course of the city wall has also allowed us to reevaluate some proposals made by the earliest topographers. Two examples relate to the course of the Valerian Wall, one concerning its southern course, along Veikou Street (V20, V21), and the other concerning its western course, in the area north of the Piraic Gate (Th108).

Erich Pernice, in 1892, identified two towers, separated by a distance of 42 m, as part of the southernmost line of the Themistoklean city wall, describing their location with reference to an 1868 map by Curtius.<sup>48</sup> In

46. Alexandri 1967, pp. 103–104, figs. 49, 50 (Th50); 1969, pp. 53–55 (Th52).

47. For a plan of the excavation at Th52, see Alexandri 1969, p. 54, fig. 21.

48. Pernice 1892, p. 276; Curtius 1868, pl. IV.



Figure 8. Southern Valerian Wall. Fortification line and two towers of a gate (center) indicated on the axis of Veikou Street (V19, V20) and north of Veikou Street (V21, V22). Superimposed on a map by Curtius and Kaupert (1881, pl. I:a), geocoded. A. M. Theocharaki and M. Pigaki

this area of the city enceinte, rescue excavations have revealed that the Themistoklean course was replaced in the 3rd century A.D. by the southern extension of the Valerian Wall,<sup>49</sup> and I propose that the fortification line of this section published by Curtius in 1868, and by Curtius and Kaupert in 1881 (Fig. 8), belongs to that later construction.<sup>50</sup> If the two towers identified by Pernice are the ones depicted on the map by Curtius and Kaupert, they should be sought to the east of Parthenonos Street, possibly along Veikou Street. Two stretches of the Valerian Wall have been excavated in that area, at V20 and V21 (see Fig. 1:d), but no tower foundations have been found.<sup>51</sup>

In the westernmost section of the city wall, in the area to the north of the Piraic Gate (Th108), many surviving remains have been assigned on maps by Curtius and Judeich to a single line of wall lying inside the Themistoklean enclosure. These remains have been identified by Judeich as a later reconstruction of the Themistoklean Wall on a new fortification line, but they have not been subsequently located in archaeological investigation. Their plotting on the modern urban plan indicates their location within the two-block area enclosed by Irakleidon, Ephestion, Eptachalkou, and Aktaiou Streets (Fig. 9).<sup>52</sup>

Long stretches of the course of the wall that have been scarcely studied include sections of the Valerian Wall within the National Garden, the line of the Themistoklean Wall in the area south of the Olympieion, and the western branch of the Themistoklean Wall west of the Hills of the Muses, the Pnyx, and the Nymphs. In addition, gates of the wall are still to be located and identified in many areas along the Themistoklean course, including the southeastern corner of Plateia Eleutherias (Koumoundourou); near the intersection of Menandrou and Sapphous Streets; in the area between Plateia Klauthmonos and Kolokotroni Street, west of the eastern Classical cemetery;<sup>53</sup> the junction of Nikis and Navarchou Nikodimou Streets; along the axis of Phalirou Street, and also along the axis of Mitsaion Street; the northwestern slope of the Hill of the Nymphs; and among remains of the wall to the north of the Piraic Gate.

- 49. Lyngouri-Tolia 1990, p. 41. 50. Curtius 1868, pl. IV; Curtius and Kaupert 1881, pl. I:a.
- 51. Alexandri 1970, pp. 43–44 (V20); Stavropoulos 1965, p. 101 (V21)
- 52. Judeich 1931, p. 126 and associated maps; see also the map by Curtius and Kaupert (1878).
- 53. The eastern Classical cemetery, which extended between Grigoriou V and Karayiorgi Servias Streets, has been well documented in excavations of graves beneath Panepistimiou, Stadiou, and Amerikis Streets; see Zachariadou 2003, p. 225.



Figure 9. Themistoklean course, northwestern sector, area east of remains at Th113, Th114, and Th115. Aligned blocks (gray) east of Ephestion Street, possibly belonging to the Valerian Wall. Superimposed on a map by Judeich (1931, pl. 1), geocoded. A. M. Theocharaki and M. Pigaki

It is hoped that the map presented in Figure 1 will serve as a tool for study of these aspects of the wall as well as other issues concerning the city's topography. The long-awaited map of the ancient city that will illustrate the findings from rescue excavations, in particular those that revealed evidence of the road system and of areas adjacent to known fortification remains, will further help in the investigation of the history of the city wall.<sup>54</sup>

# **CONSTRUCTION PHASES**

Apart from enabling the revised mapping of the course of the city wall, the inventory of fortification finds that was prepared for this study provides new tools for investigating the wall's construction phases and its chronology.<sup>55</sup> The assemblage of available archaeological information on technical features of the wall suggests the possibility of devising a new approach to its dating. Table 2 provides a summary of the known data on these features, organized by type of construction, building material, and masonry system, which underlie our identification of the construction phases and their suggested dates.

I begin with a survey of current issues of chronology in the study of the Athenian city wall. It has been usual in excavations to determine the chronology and construction phases of wall remains largely on the evidence of structural classifications, particularly the type and shape of the blocks and the style of masonry. For example, during the initial archaeological investigations of the walls at the Kerameikos (Th1), von Alten proposed that the stretches constructed of monumental polygonal limestone blocks

54. The project of mapping material recovered in rescue excavations ("Topography of Athens Digital Project") has been undertaken by Leda Costaki under the auspices of the Agora Excavations. See also Costaki, forthcoming.

- 55. On problems in determining the chronology of walls, see Camp 2000, p. 41.
- 56. For the chronological value of such evidence, see Lawrence 1979, p. 235.

TABLE 2. TECHNICAL FEATURES OF ATHENIAN CITY WALL REMAINS

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Date Assigned in Published Excavation Reports	Map Code	Fortification Elements and Associated Roads	Gate with Interior Courtyand Gate with II-Shaped Entrance	Gate(?) Curtain Wall, Base of Two Stone Faces	Mudbrick Superstructure	Curtain Wall, Compartmentalized Base	Curtain Wall, All-Stone Base Curtain Wall, Cast Construction	Proteichisma Incorp. into Curtain Wall	Double Proteichisma	Sezeritus. Staircase	Poros	snotsomi.1	Hard Stone Conglomerate	Reused Poros	Reused Material (Unspecified)	Rubble Stones	Bricks Tiles	Filling: Bricks	Filling: Tiles	Filling: Reused Material	Polygonal	InbiozsqurT ralugsrrI/Innogyloq	lnbiozsqnrT rnlugsrr1	zimobos1	DimohosI-ohuse4	Emplekton Rectangular Blocks	Headers and Stretchers	Headers	srotsbers	Wedge-Filled Gaps	Stone-Filled Gaps Set-Backs
GEOMETRIC-HELLENISTIC																															
	Th108	Incoming road		_			H						H																		
PRE-CLASSICAL-HELLENISTIC?	10?																														
	Th89	Incoming road	F	H		Н	H		Н	H		H	H	H		H	H		Г	H	H	L		H	H	H	L		Г	H	H
BEFORE THE 4TH CENTURY B.C.	В.С.																														
	Th79	Curtain wall	H	×		H	H		H	$\vdash$	×	×	H	Н			$\vdash$				×				H	×				*	H
BEFORE LATE HELLENISTIC?																															
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5th c. B.c.	Th1	Sacred way		$\dashv$			$\dashv$		$\dashv$	$\dashv$			$\dashv$	$\dashv$		$\dashv$	$\dashv$				$\dashv$			$\dashv$	$\dashv$	$\dashv$	$\dashv$		$\exists$	$\dashv$	$\dashv$
5th c. B.c. –Augustan	Th1	Dromos		$\dashv$			$\dashv$							$\dashv$		$\dashv$	$\dashv$								$\dashv$	$\dashv$					$\dashv$
Themistoklean	Th1	Sacred Gate	×	$\dashv$		$\dashv$	$\dashv$		$\dashv$	×	×	×	$\dashv$		×						×				$\dashv$	×					-
Themistoklean	Th1	Dipylon Gate	×	$\dashv$		$\dashv$	$\dashv$	$\Box$	$\dashv$	4		$\dashv$	$\dashv$	$\dashv$	×	$\dashv$	$\dashv$			+	$\dashv$			$\dashv$	$\dashv$	$\dashv$	_		$\dashv$	$\dashv$	$\dashv$
Themistoklean	Th1	Curtain wall		×		$\dashv$	$\dashv$		+	4	×	1	$\dashv$	$\dashv$	×	$\dashv$	$\dashv$		$\dashv$		×			_	$\dashv$	$\dashv$			×	$\dashv$	$\dashv$
Themistoklean	Th1	Moat		$\dashv$		$\dashv$	$\dashv$	$\Box$	$\dashv$	$\dashv$		$\dashv$	$\dashv$	_		$\dashv$	_				_				$\dashv$					$\dashv$	$\dashv$
Themistoklean	Th3	Curtain wall	+	×		$\dashv$	$\dashv$	$\Box$	$\dashv$	4		$\dashv$	$\dashv$	$\dashv$		$\dashv$	$\dashv$			+	4			$\dashv$	$\dashv$	$\dashv$	_		$\exists$	$\dashv$	$\dashv$
Themistoklean	Th9	Curtain wall	+	×		+	+	$\Box$	+	$\dashv$		$\dagger$	+	*	×	+	+		1	+	4	4		+	+	+	4		$\top$	$\dashv$	+
Themistoklean	Th9	Moat	+	$\dashv$		$\dashv$	$\dashv$	$\exists$		4		1	$\dashv$	$\downarrow$	$\downarrow$	$\dashv$	$\dashv$		$\dashv$	+	4			1	$\dashv$	$\dashv$	$\downarrow$			$\dashv$	$\dashv$
Themistoklean	Th16	Curtain wall	+	×		$\dashv$	$\dashv$	$\Box$	$\dashv$	-		$\dashv$	$\dashv$	$\dashv$	$\Box$	$\dashv$	$\dashv$		$\forall$	$\dashv$	$\dashv$	×		$\dashv$	$\dashv$	$\dashv$	_		$\dashv$	×	$\dashv$
Themistoklean	Th44	Curtain wall	+	×		+	+	7	+	+	×	+	+	4	×	$\dagger$	+		1	+	4	_		$\dashv$	+	$\dashv$	4		×	$\forall$	+
Themistoklean	Th56	Gate		+		+	+	$\perp$	+	+		$\dagger$	+	× ;		+	+			-	+	$\perp$		+	+	+				$\top$	+
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Themistoklean	Th85	Curtain wall	+	+	$\downarrow$	$\dagger$	+	7	+	+	$\Box$	*	+	$\downarrow$	×	$\dagger$	+		$\forall$	+	$\dashv$			1	+	$\dashv$	4		$\top$	$\dashv$	+
Themistoklean	Th86	Curtain wall		×				$\Box$	$\dashv$		×	- `	×	$\dashv$	*	$\dashv$	$\dashv$		$\dashv$		×				$\dashv$	$\dashv$	$\dashv$			×	$\dashv$
Themistoklean	Th87	Curtain wall		×		_	_			_		^	×	_			_			_	_	×			-	_					$\dashv$
Themistoklean	Th90	Curtain wall		×	×	$\dashv$	$\dashv$		-	_	×		$\dashv$	_	×	$\exists$	$\dashv$			_				$\dashv$	$\dashv$	$\dashv$					×
Themistoklean	Th94	Tower																													
Themistoklean	Th95	Curtain wall		$\dashv$		H	$\vdash$		$\dashv$			$\exists$	$\dashv$	$\Box$		Н	-								-	_					-
Themistoklean	7h96	Curtain wall		×			$\dashv$		$\dashv$	$\dashv$		×	$\dashv$	$\dashv$		$\dashv$	$\dashv$				×			$\dashv$	$\dashv$	$\dashv$	$\dashv$		$\exists$	$\dashv$	$\dashv$
Themistoklean	Th96	Tower	+	$\dashv$	$\Box$	+	$\dashv$	$\exists$	$\dashv$	4	$\Box$	+	$\dashv$	$\dashv$	$\exists$	$\dashv$	$\dashv$	$\Box$	$\dashv$	+	$\dashv$	_		$\dashv$	+	$\dashv$	_		$\forall$	$\forall$	$\dashv$
Themistoklean	Th103	Curtain wall	+	×	$\Box$	+	$\dashv$	$\exists$	+	4		$\dagger$	$\dashv$	$\dashv$	×	+	$\dashv$	_	$\forall$	+	$\dashv$	$\dashv$	コ コ	$\dashv$	+	$\dashv$	4		$\top$	$\forall$	+
Themistoklean	Th104	Curtain wall	=	×		$\dashv$	$\dashv$	$\Box$	$\dashv$	$\dashv$	$\Box$	$\dashv$	$\dashv$	$\dashv$	×	$\dashv$	$\dashv$	4	┪	$\dashv$	4	4	╛	$\dashv$	$\dashv$	$\dashv$	4		٦	$\dashv$	$\dashv$

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Date Assigned in Published Excavation Reports	Map Code	Fortification Elements and Associated Roads	Gate with Interior Courtyard Gate with II-Shaped Entrance	Gate(?) Curtain Wall, Base of Two Stone Faces	Mudbrick Superstructure	Curtain Wall, Compartmentalized Base	Curtain Wall, All-Stone Base Curtain Wall, Cast Construction	Proteichisma Incorp. into Curtain Wall	Double Proteichisma	Buttresses	Stairease	Poros Limestone	Hard Stone	Conglomerate	Reused Poros	(bərlisəqsnU) lairəraM həsusA	Rubble Stones	Bricks Tiles	Filling: Bricks	Filling: Tiles	Filling: Reused Material	Mortar	Innogylod	InhiozoqurT ralugorrI/Innogylo IphiozoqurT ralugorrI	Innegular Trapezoidal	zimohozl - almohozl -	Pseudo-Isodomic Emplekton	Rectangular Blocks	erselester and Stretchers	Headers	Stretchers	Wedge-Filled Gaps	Stone-Filled Gaps	sq-1-gacks
Themistoklean	Th106	Curtain wall		×			$\vdash$					$\vdash$				×							×											
Themistoklean	Th111	Curtain wall				Н	$\vdash$	$\vdash$			Ĥ	×	H																	×				
Pelopon. War (431-404 B.c.)	Th1	Sacred Gate	×			$\vdash$	$\vdash$						Н														-							
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Pelopon. War (431-404 B.C.)	Th1	Moat		4		$\dashv$	$\dashv$	4	$\Box$	$\dashv$	$\dashv$	$\dashv$	4	_	╛	$\exists$	$\dashv$	$\dashv$	4	$\Box$		$\exists$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	4	_		$\exists$	$\dashv$	$\exists$	
EARLY 5TH-END 4TH CENTURY B.C.	URY B.C.																																	
	Th1	External ring road				$\vdash$	$\vdash$	$\vdash$			H	$\vdash$	L												_								Г	
EARLY 5TH-EARLY 3RD CENTURY B.C.	TURY B.C																																	
	Th9	External ring road	F				$\vdash$	L		Г	H	$\vdash$	L	L		H	H	H	L			H	H	H	H	H	H	H	L		Г	H	Г	Г
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CLASSICAL		-																															1	
	Th27	Curtain wall					$\vdash$				H	-	L	_		×	H	-	_			H	H	H	-	H	H	L	L		Г	H	Г	
	Th56	Incoming road				Н	$\vdash$	$\vdash$		П	$\vdash$	$\vdash$	$\vdash$	$\vdash$		Н	$\vdash$	$\vdash$	H			$\vdash$	H	$\vdash$	$\vdash$	$\vdash$	$\vdash$	H	L		П	Н	П	П
END 5TH-BEGINNING 4TH CENTURY B.C.	ENTURY	B.C.																																
End 5th or beg. 4th c. B.C.	Th77	Curtain wall		×			$\vdash$	L			H	$\vdash$	L						_				×	-		-		_						
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4th c. B.c.	Th1	External ring road		F			$\vdash$	L		Г	H	$\vdash$	L	L		Н	H	H	L	E		H	H	H	H	H	H	L	L		Г	Н		
4th c. B.c.	Th4	External ring road				Н	$\vdash$	$\vdash$				$\vdash$															H							
4th c. B.C.	Th5	Incoming road	_			Н	Н	$\square$		П	Н	$\vdash$	Н	Ц		Н	-	-				Н	Н	-	$\vdash$	-	$\vdash$					Н	П	
4th c. B.c.	Th10	Moat		$\exists$		$\exists$	$\dashv$	_			$\dashv$	$\dashv$	_				$\dashv$							$\dashv$		$\dashv$		_						
4th c. B.c.	Th27	Proteichisma									^	×		*											*	*								
4th c. B.c.	Th27	Moat		$\exists$		H	$\dashv$	$\Box$		П	$\dashv$	-	$\sqcup$	Щ			-	-					-	-	-	-	-						П	
4th c. B.C.	Th27	Moat/road ret. wall												*											_	×	_							
4th c. B.C.	Th27	Moat ret. wall (outer)				H	H	$\vdash$			H	$\vdash$	H	*											*	*								
4th c. B.C.	Th42	Proteichisma	_			Н	Н	$\square$		П	Н	$\vdash$	Н	×		Н	-	-				Н	Н	-	_	×	$\vdash$					Н	П	
4th c. B.c.	Th45	Proteichisma		$\exists$		$\dashv$	$\dashv$	$\dashv$	$\Box$		$\dashv$	$\dashv$	$\dashv$	×		$\dashv$	$\dashv$	$\dashv$	$\dashv$			$\dashv$	$\dashv$	$\dashv$	$\stackrel{\sim}{\dashv}$	×	$\dashv$	$\dashv$			$\exists$	$\dashv$		
4th c. B.c.	Th50	Curtain wall		$\exists$			*				^	×		×				$\dashv$				$\dashv$	$\dashv$		^	×	$\dashv$			*				
4th c. B.C.	Th57	Curtain wall		$\exists$				_	$\Box$		$\dashv$		_						_						^	×	$\dashv$	4						
4th c. B.c.	Th62	Curtain wall	1	$\dashv$	_†	+	×	$\dashv$	$\Box$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	×		$\dashv$	$\dashv$	$\dashv$	4	$\Box$		$\dashv$	$\dashv$	$\dashv$	$\stackrel{\sim}{+}$	×	$\dashv$	$\dashv$	×		$\dashv$	$\dashv$	$\dashv$	Т
4th c. B.c.	Th64	Curtain wall	+	×		+	+	$\dashv$	Ţ	$\top$	+	+	+	$\downarrow$	ightharpoons	$\dagger$	+	+	$\dashv$	ightharpoons		$\dagger$	+	+	+	+	$\dashv$	$\dashv$	$\downarrow$		十	$\dagger$	寸	Т
4th c. B.c.	Th66	Curtain wall	+	×	╧	+	+	$\downarrow$	$\perp$	$\dagger$	+	×	+	4	1	$\dagger$	+	+	4	ightarrow	I	$\dagger$	+	+	+	+	+	+	$\downarrow$	I	$\top$	$\dagger$	$\top$	Т
4th c. B.c.	J.h66	Proteichisma	-	4	_	$\dashv$	$\dashv$	$\dashv$		7	$\dashv$	$\dashv$	4	×		┨	$\dashv$	$\dashv$	4	]		$\dashv$	$\dashv$	$\dashv$	$\dashv$	+	$\dashv$	4	×		┨	$\dashv$	٦	٦
																								(	7	•								

TABLE 2—Continued

	sq-12g-12g		×																					$\neg$										П	$\neg$	$\neg$
	stone-Filled Gaps		$\exists$			$\exists$		Н				$\vdash$				Н		$\exists$		$\exists$	$\dashv$		$\dashv$	$\dashv$		Н							Н	$\dashv$	$\dashv$	$\dashv$
	Wedge-Filled Gaps		$\exists$					Н								Н	*	$\exists$		*	$\dashv$		×	×	×	Н							П	$\dashv$	$\dashv$	┪
	Stretchers							Н					$\vdash$			Н					$\dashv$	$\dashv$	$\neg$	$\dashv$		Н			×				П	$\dashv$	$\dashv$	┪
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7	erbets and Stretchers	Н		×		×	*	×	×							Н		×	$\dashv$	$\dashv$	$\dashv$	$\dashv$	7	$\dashv$		Н	×			×				$\dashv$	$\dashv$	$\dashv$
nos	Rectangular Blocks	Н						Н		×						Н			$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$		Н			×					$\dashv$	$\dashv$	×
Masonry	Emplekton	Н						Н			_		$\vdash$	$\vdash$	H	Н			$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$		Н				H			$\neg$	$\dashv$	$\dashv$	$\dashv$
	zimobosI-obussa		=					Н			_		$\vdash$			Н		=		$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$		Н							Н	$\dashv$	$\dashv$	$\dashv$
	zimobos!		$\exists$	*		×	*	×	×		_		$\vdash$			Н		×		$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$		H		×		×		×	Н	$\dashv$	$\dashv$	$\dashv$
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	Polygonal La La La	Н	$\dashv$	-	$\dashv$	$\dashv$		Н			_	$\vdash$	$\vdash$	$\vdash$	H	Н	×	$\dashv$	$\dashv$	×	$\dashv$	$\dashv$	×	×	×	Н				H		H	$\dashv$	$\dashv$	$\dashv$	$\dashv$
$\vdash$	Mortar	Н	-	-		$\dashv$		H			_					Н	$\hat{}$	-	$\dashv$	$\hat{}$	$\dashv$	$\dashv$	$\hat{}$	$\hat{\dashv}$	^	H							-	$\dashv$	$\dashv$	$\dashv$
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	Filling: Bricks	Н	_	$\square$		$\dashv$		$\vdash$		_	_	_	$\vdash$		L	Н		_	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$	$\dashv$		$\vdash$		_	_	L	_	H	$\vdash$	$\dashv$	$\dashv$	$\dashv$
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late	səuo18 əladuk												L							_	_	$\dashv$		4						L				$\dashv$	$\dashv$	_
1	Reused Material (Unspecified)							×				*	×	×										_				×						$\sqcup$		_
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ture	Curtain Wall, All-Stone Base		×	*		*	*						Г											$\exists$										$\Box$	۸.	٦
Structure	Curtain Wall, Compartmentalized Base															П																		一	$\exists$	┨
S	Mudbrick Superstructure	П											Г		Г		×			×	$\neg$			$\dashv$				Т		Г				$\Box$	$\neg$	┨
	Curtain Wall, Base of Two Stone Faces	Н						Н									×			×	$\dashv$	$\dashv$	×	×	×	Н							×	×	$\dashv$	$\dashv$
	Cate(?)																				$\dashv$		7	$\dashv$										$\dashv$	$\dashv$	┨
	Gate with II-Shaped Entrance	Н									_					Н			$\dashv$	$\dashv$	$\dashv$	$\dashv$	7	$\dashv$										$\dashv$	$\dashv$	$\dashv$
	Gate with Interior Courtyard		$\dashv$		-	$\exists$		Н				$\vdash$				×	-	$\dashv$		$\dashv$	$\dashv$		$\dashv$	$\dashv$		Н								$\dashv$	$\dashv$	$\dashv$
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	ifica Ass	Curtain wall	Curtain wall	Curtain wall	Curtain wall	Curtain wall	r	Proteichisma	Moat/road ret. wall	Proteichisma			Proteichisma	Proteichisma		Sacred Gate	Curtain wall	Proteichisma	Moat ret. wall	Curtain wall	Curtain wall	Curtain wall	Curtain wall	Curtain wall	Curtain wall	r	Proteichisma	Proteichisma	Curtain wall	Proteichisma		Proteichisma	Curtain wall	Curtain wall	Curtain wall	Proteichisma
	<sup>q</sup> ort	urt	urta	urt	urt	urt	Tower	rote	Ioat	rote	Moat	Gate	rote	rote	Moat	acre	urt	rote	Ioat	urta	urt	urt	urt	urt	urt	Tower	rote	rote	urt	rote	Moat	rote	urta	utt	urt	rote
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	Map Code	167	Th71	Th83	Th84	Th85	Th85	Th88	Th88	Th105	Th105	Th108	Th109	Th110	h1	h1	h1	h1	h1	Th9	Th19	Th58	Th80	Th103	Th106	Th5	Th4	Th48	Th60	Th60	160	Th68	177	94	P8	Th15
	$\mathcal{C}_{W}^{W}$	Th67	Th	Th	Th	T	Th	Th	Th	Th	Th	Th	T	Th	Th1	Th1	Th1	Th1	Th1	Ţ	Th	Ţ	T	Th	Th	I	E	Th	Th	Th	Th60	Th	Th77	Th94	Th8	Ţ
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The Provincial wolf   The Provincial wolf	ssigned in Published	Map Code		Gate with II-Shaped Entrance	, , , , , , , , , , , , , , , , , , , ,			Curtain Wall, All-Stone Base	, , , , , , , , , , , , , , , , , , , ,		,				,	Reused Poros		,				,									Wedge-Filled Gaps	sqvD billi-snotS	Set-Backs
The Proposition of the Control Methods   The Control Methods   The	half 4th c. B.c.	Th29	Curtain wall		$\vdash$	$\vdash$		×				Ė	×		×										×			×					*
The Property of Monte   The	half 4th c. B.C.	Th29	Proteichisma												×													×					
This About currain wall         1 Name         Currain wall         1 Name         1 Name         Name	half 4th c. B.c.	Th29	Moat			$\vdash$																											
Day half the r.e. ( This 2 Currain wall	half 4th c. B.C.	Th86	Curtain wall			_		*							*										×			*					
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The Figure   The		Th1	Moat			_																											
This Gueries of Currian wall         X x x x x x x x x x x x x x x x x x x x		Th9	Moat			L																											
This   Gate (cast)   X   X   X   X   X   X   X   X   X	gan	Th58	Curtain wall			L									×							_					_						
Hiter Likebourgents	gan?	Th89		×	^												×								×								
This cared Gare   This cared Gare   This cared Gare   This cared Gare   This cared Gare   This cared Gare   This cared Gare   This cared Gare   This cared Gare   This cared Gare   This cared wall   This cared	ears after "Lykourgan?"	Th89	Gate (west)		_	-			-				×										_										
This cuttain wall	07-304 в.с.	Th1		×	$\dashv$	$\dashv$							$\dashv$					$\exists$	$\dashv$				$\dashv$										
Third continued by the sector of the secto	07-304 в.с.	Th1	Curtain wall		^	-			-			×	$\dashv$	_			×		$\dashv$			$\dashv$	-				$\dashv$	$\dashv$					
The control of the		Th103	Tower			$\dashv$			$\dashv$						×			_		$\dashv$		$\dashv$	_	$\dashv$	*			_					×
c.         Th4         Proteining         X         I         <	he 330s B.C.	Th1	Moat		$\dashv$	$\dashv$	J		$\dashv$	$\dashv$			$\dashv$	_				$\dashv$		$\dashv$			$\dashv$				$\dashv$					$\exists$	
c.         Th5         Gate           c.         Th8         Curtain wall         *         X	c. B.C.	Th4	Proteichisma		$\dashv$	$\dashv$	$\Box$		$\dashv$	$\dashv$	×		$\dashv$	$\dashv$	_		$\dashv$	$\dashv$	$\dashv$	$\dashv$		$\dashv$	$\dashv$	$\dashv$			$\dashv$	$\dashv$			$\neg$	$\dashv$	
c.         Th5         Curtain wall         *         X	c. B.C.	Th5	Gate			$\dashv$	$\Box$		$\dashv$	$\dashv$									-	$\dashv$		$\dashv$	-	$\dashv$			$\dashv$	_					
c.         Th5         Tower           c.         Th6         Curtain wall         *         X	c. B.C.	Th5	Curtain wall		$\dashv$	$\dashv$	$\Box$	*					$\dashv$	-	×		$\dashv$	$\dashv$	$\dashv$	$\dashv$		$\dashv$	$\dashv$				$\dashv$	$\dashv$			$\exists$	$\exists$	
c.         This Currain wall         *         *         X	c. B.C.	Th5	Tower		$\dashv$	$\dashv$			-				$\dashv$	_	×			$\dashv$	$\dashv$			$\dashv$	_				$\dashv$	$\dashv$					
C.         This Moat         Noat	c. B.C.	Th8	Curtain wall					*							×										×			×					
C.         Th56         Moat         X         Y<	c. B.C.	Th16	Curtain wall					۸.							×			_					_							×			
C.         Th61         Curtain wall         X	c. B.C.	Th56	Moat																														
c. Th69 Proteichisma  c. Th69 Moat  c. Th81 Proteichisma  c. Th81 Curtain wall  c. Th99-100 Curtain wall  c. Th99-100 Curtain wall  c. Th109 Curtain wall  d. Th11 Proteichisma  Th11 Proteichisma  Th11 Proteichisma  Th12 Curtain wall  Th12 Curtain wall  Th13 Curtain wall  Th14 Proteichisma  Th14 Proteichisma  Th15 Curtain wall  Th15 Curtain wall  Th16 Curtain wall  Th17 Proteichisma  Th18 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th19 Curtain wall  Th20 Curtain w	c. B.C.	Th61	Curtain wall					×							×			_					_		×			×					
c. Thé9 Moat c. Thi Poteichisma c. Thi Poteichisma c. Thi Poteichisma c. Thi Poteichisma c. Thi Poteichisma c. Thi Dipylon Gate c. Thi Dipylon Gate dipylon Gate	c. B.C.	Th69	Proteichisma												×			_					_		×			×					
c. Th76 Proteichisma  c. Th81 Proteichisma  c. Th81 External ring road  c. Th81 Curtain wall  c. Th99 Curtain wall  c. Th109 Curtain wall  Th1 Dipylon Gate  X X X X X X X X X X X X X X X X X X X	c. B.C.	1h69	Moat																														
c. Th81 Proteichisma c. Th81 Moat c. Th81 External ring road c. Th82 Curtain wall c. Th99 Curtain wall c. Th10 Proteichisma c. Th11 Proteichisma  Th1 Proteichisma  Th9 Curtain wall c. Th10 Curtain wall c. Th10 Curtain wall c. Th10 Curtain wall c. Th10 Curtain wall c. Th10 Curtain wall c. Th10 Curtain wall c. Th10 Curtain wall c. Th10 Th10 Th20 Curtain wall c. Th10 Th20 Curtain wall c. Th10 Th20 Curtain wall c. Th10 Th20 Curtain wall c. Th10 Curtain wall c. Th10 Th20 Curtain wall c. Th20 Curtain	c. B.C.	7h76	Proteichisma		$\vdash$	_			_			Ė	×	_	×		×	_				_	_		×		_						
c. Th81 Moat c. Th81 External ring road c. Th93 Curtain wall c. Th99-100 Tower Th10 Curtain wall Th1 Dipylon Gate X X X X X X X X X X X X X X X X X X X	c. B.C.	Th81	Proteichisma			_				×	×		×	.,	×										×								
c. Th81 Extend ring road c. Th93 Curtain wall c. Th99-100 Tower Th10 Dipylon Gate X X X X X X X X X X X X X X X X X X X	c. B.C.	Th81	Moat			_																											
c. Th93 Curtain wall	c. B.C.	Th81	External ring road															_					_										
c. Th99 Curtain wall	c. B.C.	Th93	Curtain wall			$\vdash$		*								*						_					_	*	*				
c. Th99-100 Tower  C. Th109 Curtain wall  Th1 Dipylon Gate  X N N N N N N N N N N N N N N N N N N	c. B.C.	Th99	Curtain wall					*					×												×			*					
C. Th109 Curtain wall		h99-100	-					*							*			_					_		*			*					
Th1         Dipylon Gate         X		Th109	Curtain wall			L		×							×		×					_			*		_	*					
Th1         Proteichisma         X         X         X           Th9         Curtain wall         X         X         X	. B.C.	Th1		×		Щ		×				×	×		×										×			×					
Th9   Curtain wall	l B.C.	Th1	Proteichisma		$\vdash$	$\sqcup$			H	$\square$			Н	$\square$	×		Н	Н	$\vdash$	Н		$\vdash$	$\vdash$		×	$\Box$	$\vdash$	×			П	$\Box$	
	. B.C.	Th9	Curtain wall		$\hat{-}$		$\Box$		$\dashv$	_			$\dashv$	$\dashv$	×			$\dashv$	$\dashv$	$\dashv$		$\dashv$	_	4	×	$\neg$	-	_		×	$\neg$	$\exists$	

Set-Backs Stone-Filled Gaps Wedge-Filled Gaps รมองาวอมรู неадеrs глэдэгэлүү рип глэрпэН Rectangular Blocks Гтріектоп vimobosI-obuse4 эгшорост InbiozsquiT ralugervI Polygonal /Irregular Trapezoidal ไมกออยูปอ лизлоју Filling: Reused Material esiiT:gailiiA Filling: Bricks SəjiL Bricks Material Rubble Stones Reused Material (Unspecified) × × Reused Poros Conglomerate onote braH әио18әші Т sonodอรบวมเบรร Buttresses Double Proteichisma Proteichisma Incorp. into Curtain Wall Curtain Wall, Cast Construction Structure Curtain Wall, All-Stone Base Curtain Wall, Compartmentalized Base Mudbrick Superstructure Curtain Wall, Base of Two Stone Faces (¿)2105 Gate with II-Shaped Entrance Gate with Interior Courtyard Fortification Elements and Associated Roads External ring road External ring road Internal ring road External ring road Incoming road Incoming road Incoming road Incoming road Curtain wall Curtain wall Proteichisma Curtain wall Sacred Gate Curtain wall Curtain wall Curtain wall Curtain wall Curtain wall Sacred Gate Gate Gate Th12 Th89.1 V16 Th56 Map Code **Th66** Th52 Th60 Th66 Th77 Th80 Th88 Th81 Th91 Th110 10 10 10 10 THT SECOND HALF 2ND CENTURY B.C. 4TH CENTURY B.C.-ROMAN Beg. 3rd c. B.c.-mid-2nd c. A.D. Date Assigned in Published TABLE 2—Continued Excavation Reports First half 2nd c. B.C. 1st Century B.C. LATE CLASSICAL Beg. 2nd c. B.c. Beg. 3rd c. B.c. Beg. 2nd c. B.c. 2nd c. B.C. Beg. 2nd c. B.c. HELLENISTIC Beg. 3rd c. B.c. Beg. 3rd c. B.c. Beg. 3rd c. B.c. Hellenistic Hellenistic Hellenistic Hellenistic Hellenistic 2nd c. B.c. 2nd c. B.C. ROMAN Beg.

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The Processing of Process of Processing States   Processing Stat								Stru	Structure										Material	rial					$\vdash$					N	Masonry	ry					$\Box$
This Surred Gate   X   X   X   X   X   X   X   X   X	Date Assigned in Published Excavation Reports	Map Code	Fortification Elements and Associated Roads												Limestone											1		I				ersedstorts han ersebeseH	Headers				sg-1-2acks
This Success Care   X	LATE ROMAN																																				
This   Curtain wall   Note	Valerian	Th1	Sacred Gate	×	H	$\vdash$				$\vdash$	H						Н	$\vdash$	H				П		Н	H	H										
This Curtain wall The C	Valerian	Th1	Curtain wall		Н	×				_	-						×		×				П	-	-	-	-									_	
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VJ         Curtain wall         N         X         <	Valerian	Th27	Curtain wall			$\dashv$				$\dashv$	$\dashv$	_				$\exists$	$\exists$	-`	×	_				$\exists$	×	$\dashv$	_									$\exists$	
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V4         Cuttain wall         X         <	Valerian	V3	Curtain wall		$\dashv$	$\dashv$	_			$\dashv$	$\dashv$	$\dashv$	Ц				$\dashv$	$\dashv$	$\dashv$		_]		$\exists$	$\dashv$	$\dashv$	$\dashv$	$\dashv$							$\exists$	$\dashv$	$\dashv$	
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PH26   Curtain wall   PH27   Curtain wall   PH28   Beulé Gate   PH28   Curtain wall   PH28   Curtain wall   PH28   Tower   Th1   Sacred Gate   Th4   Tower   Th58   Tower   Th68   Tower   Th68   Tower   Th89.1   Curtain wall   D1   Curtain wall   D1   Curtain wall   D1   Tower   Th109   Tower	×	
PH27 Curtain wall   PH28 Beulé Gate   PH28 Curtain wall   PH28 Tower   Th1 Sacred Gate   Th1 Curtain wall   Th4 Tower   Th5 Tower   Th58 Tower   Th68 Tower   Th89.1 Curtain wall   D1 Curtain wall   D1 Curtain wall   D1 Tower   Th109 Tower	× × × × × ×	×
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sq:0P-12S Stone-Filled Gaps Wedge-Filled Gaps รมองุวรอมรูร sлəрvə<sub>H</sub> Headers and Stretchers Rectangular Blocks Гтрісктоп nuoposI-opnəsd эгшороs<sub>I</sub> \* InbiozsqnyT valugsvyI Polygonal /Irregular Trapezoidal Polygonal лизлоју Filling: Reused Material Filling: Tiles Filling: Bricks səjiL Bricks Material səuo18 ə1qqnA Reused Material (Unspecified) Reused Poros Conglomerate suots braH Timestone sonodอรบวมเบาร səssəл41nA Double Proteichisma Proteichisma Incorp. into Curtain Wall Curtain Wall, Cast Construction Structure Curtain Wall, All-Stone Base Curtain Wall, Compartmentalized Base Mudbrick Superstructure Curtain Wall, Base of Two Stone Faces Cate(?) Gate with II-Shaped Entrance Gate with Interior Courtyard Fortification Elements and Associated Roads (outer) Moat/road ret. wall External ring road nternal ring road Internal ring road Internal ring road Moat ret. wall Road ret. wall Road ret. wall Proteichisma Curtain wall Proteichisma Proteichisma Curtain wall Curtain wall Proteichisma Proteichisma Proteichisma Proteichisma Proteichisma Moat Moat Moat Moat Gate Moat Th14 Th16 Th18 Th19 Th13 Th14Th14 Th14 Th15 Th16 Th17 Th17Th17Th19Th20Th22Th11Th21 Th21 Th8 Th9 Th5 Th9Date Assigned in Published Excavation Reports Undated

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Technical features designated by asterisks have been identified by the author on the evidence of photographs, drawings, and personal autopsy, and are not assigned in the published excavation reports.

belonged to the Themistoklean fortification.<sup>57</sup> In 1907, Noack assigned these limestone blocks, and similar examples that he had excavated west of the Sacred Gate (in curtain wall 1a), to the so-called Kononian period.<sup>58</sup> It was not until the excavations directed by Ohly, from 1956 to 1961, that an examination of the interior of the two faces of the same stretch of the wall, and their association with layers of the fill between them, enabled a distinction between the wall's Themistoklean and Kononian phases.<sup>59</sup> The dating of newly recovered stretches of the Athenian city wall has often been based on comparison of their technical features with those of other stretches of wall, especially when pottery from the fill provides no evidence for their dating.<sup>60</sup> The features of the walls at the Kerameikos are among the most extensively cited.

Classification of construction phases of the Athenian city wall has become fairly standardized among present-day scholars, generally corresponding to the historical periods of Themistokles, the Peloponnesian War, Konon, and Lykourgos, and to the Hellenistic, Late Roman, and Justinianic periods. A problem with the assignment of these historical designations to the wall remains is that it is rarely accounted for in the published reports; as a result, the criteria used for the dating cannot be reevaluated on the basis of the evidence provided. Assessment of pottery on which the dating of stretches of the fortification might have been based is also currently not feasible, as the evidence, which is kept in the Ephoreia's storerooms, is not generally accessible to researchers.

Table 2 shows, at a glance, the types and extent of evidence for the Athenian wall system that are provided in the excavation reports. This summary of the evidence also shows that particular groupings of technical features characterize particular fortification elements, regardless of the construction dates they were assigned by their excavators. Effort is made to suggest possible redating of some stretches of the city wall on the basis of distinct groupings of technical features. Appendix 1 presents a general description of the fortification elements of the Hellenistic wall—the curtain, towers, *proteichisma*, moat, retaining walls of the moat, and ring roads—and their common structural characteristics. On the basis of the assembled data, I have identified 15 construction phases for the Athenian city wall. Issues regarding their dating are addressed in the discussion of each phase.

57. Noack (1907, p. 124) discusses this dating of polygonal walls in connection with stretches depicted by von Alten (1878, pl. III:9, 10 [curtain wall Ia], 22 [curtain wall Ib]). The view that the Themistoklean Wall was constructed of polygonal limestone was accepted by Judeich (1905, p. 123). Dörpfeld (1892, pp. 449–450) contrasted the conglomerate blocks of the wall at Aristeidou 14 and Pesmazoglou Street (Th29), which he dated to the 4th century B.C., with the limestone blocks of the Themistoklean Wall.

58. Noack 1907, p. 131. Judeich (1931, p. 133) agreed with Noack, while Maier (1959, p. 15) distinguished two phases of this section of the

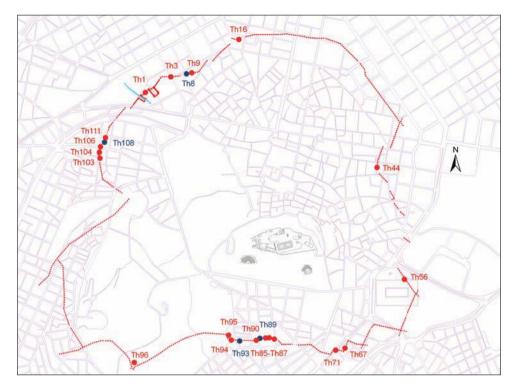
Themistoklean Wall, the first made of poros blocks or coarse unworked stones and the second of polygonal blocks of bluish limestone. For curtain wall 1a, see Knigge 1991, fig. 165.

59. Ohly 1965, pp. 360–376, fig. 52. 60. See, e.g., Lyngouri-Tolia 1992, pp. 28–29, on the remains of the wall at location Th80.

61. Such criteria are missing, for example, from the report of excavation at Dipylou 11 (Alexandri 1969, p. 41): "The examination of the stratigraphy shows that this stretch of wall was built in the 4th century B.C., and was restored at the end of that century, as is seen from an inscription found during the excavation." Among the inscriptions

housed in a storeroom of the 3rd Ephoreia (and recorded in a digital archive overseen by Angelos Matthaiou), none are recorded as having been found in that excavation.

62. The pottery on which the dating of the stretches along the Themistoklean course was based has yet to be reexamined in light of the "downdating" of Hellenistic pottery indicated by the results of excavations at the Athenian Agora. Thompson (1982, p. 146, n. 44) long ago recommended restudy of the pottery from excavations of the *diateichisma*; results of such restudy in respect to the Compartment Wall on the Pnyx are summarized in Conwell 2008, pp. 178–182.



PHASE 1: THEMISTOKLEAN PERIOD (479/8 B.C.)

A total of 19 stretches of the wall that the Athenians called τὸν κύκλον τοῦ ἄστεως ("the circuit-wall of the city"; Thuc. 2.13.7) have been dated by their excavators to the Themistoklean period: Th1, Th3, Th9, Th16, Th44, Th56, Th67, Th71, Th85–Th87, Th90, Th94–Th96, Th103, Th104, Th106, and Th111. <sup>63</sup> The stretch of the city wall recovered at location Th79 is dated to a period "before the 4th century B.C.," which would allow for its assignment to phase 1 or 2. <sup>64</sup> I argue below (pp. 106–112) that an additional four stretches (Th8, Th89, Th93, and Th108) might also be of Themistoklean date (see Fig. 10). Construction consisted of a stone base and a superstructure made of sun-dried mud bricks. The base had two stone faces (Fig. 11) and a core filled with rubble, mixed with stone chips and earth or clay. <sup>65</sup> The stone base was one to two courses high and ranged in width between 2.50 and 3.25 m; its top surface was level to receive the brick superstructure.

The main distinguishing characteristic of the Themistoklean construction phase is the widespread reuse of materials, including architectural

63. Th1 at the Kerameikos is considered here as a single site, although four distinct fortification sections of the city wall have been studied in the area: western curtain wall 1a and 1b, and the two gates, the Sacred and the Dipylon. The stretch at the southwest foot of the Hill of the Muses (Th96), dated by its excavators to the Themistoklean period (Thompson and Scranton 1943, p. 330,

n. 53), should probably be assigned to phase 2 or 3 on grounds of its attested use of limestone blocks and polygonal masonry, but because the stretch is no longer visible and cannot be inspected, I list it here under its reported Themistoklean dating. The same rationale has been followed for the stretch of wall at location Th67, constructed with limestone blocks in "beautiful polygonal

Figure 10. Locations of physical remains of the Themistoklean Wall (in red), and remains dated in excavation reports to the post-Themistoklean period but proposed here to belong to the original wall (in blue). A. M. Theocharaki and M. Pigaki

masonry," according to Travlos, and dated by him to the Themistoklean phase (Travlos Archive, folder "Athens" 4N-155, 5 [Syngrou 25]).

64. Threpsiades 1950, p. 71.

65. For details of this type of construction, see Orlandos [1955–1958] 1994, vol. 2, pp. 205–206; Martin 1956, p. 197; 1965, p. 375; Winter 1971, p. 71, n. 4, and p. 72.



Figure 11. Themistoklean Wall, Mitropoleos 15–17 (Th44); view from the northeast. Base constructed of two stone wall faces. Travlos Archive, photography folder "Threpsiades Archive" (Athens; OΔΕΠ, Mitropoleos-Voulis). Courtesy Archaeological Society at Athens

and sculptural fragments, from the Archaic period. These are mostly used in the lower course of the structure (Fig. 12). Representing a rare instance where one can observe a concurrence between literary evidence and archaeology, the reuse of materials in the construction of the wall that was noted by Thucydides (1.93.2) has been confirmed by archaeological investigation at a minimum of 10 excavation sites (Th1, Th9, Th44, Th56, Th85, Th86, Th90, Th103, Th104, and Th106): Οἱ γὰρ θεμέλιοι παντοίων λίθων ὑπόκεινται καὶ οὐ ξυνειργασμένων ἔστιν ἦ, ἀλλ' ὡς ἕκαστοί ποτε προσέφερον, πολλαί τε στῆλαι ἀπὸ σημάτων καὶ λίθοι εἰργασμένοι ἐγκατελέγησαν ("For the lower courses consist of all sorts of stones, in some cases not even hewn to fit but just as they were when the several workers brought them, and many columns from grave monuments and stones wrought for other purposes were built in"). The surfaces of grave reliefs were often hacked off for reuse among other building materials.66

Reference to the style of masonry that characterizes the Themistoklean fortification is missing from most reports, possibly because the state of the remains did not allow for describing the type of masonry. When there is such a reference, the masonry style is usually described as polygonal (at Th1, Th67, Th86, Th96, and Th106), twice "polygonal tending toward irregular trapezoidal" (Th16, Th87), and it is not always clear in the excavation reports which particular blocks the designated style is meant to describe.<sup>67</sup>

The lack of a consistent designation of the style of masonry might also be due in part to the extensive reuse of materials in the construction of the wall in this phase and to the haste in which the materials were chosen. The surfaces of the stone base were not uniformly treated for their use in the wall, probably also for reasons of haste, and the building material of its two walls was usually roughly hewn, preserving details of its earlier use. The evidence for haste in the quality of the construction was recognized by Noack, one of the first to identify the Themistoklean city wall at the Kerameikos, who noted that "despite the haste in which it was built, the construction was

66. On the issue of *spolia* built into the Themistoklean city wall, and for related bibliography, see Bäbler 2001.

67. "Πολυγωνικὸν σύστημα, πλησιάζον τὸ ἀκανόνιστον τραπεζιόσχημον" in Alexandri 1969, p. 70 (Th16).





carried out in such a way as to ensure the greatest possible stability. We can see that they used construction material from earlier monuments as well as marble sculptures from Archaic tombs only for the foundation proper, and even this happened according to careful selection."<sup>68</sup>

Towers of the Themistoklean fortification have been documented at only two locations: at the intersection of Drakou and Mouson Streets (Th94) and at the foot of the Hill of the Muses (Th96). The assignment of these towers to the Themistoklean fortification is based on their position along the line of that wall and does not refer to their date or phase of construction. <sup>69</sup> An estimation of the number of towers belonging to the Themistoklean fortification is impossible at present. <sup>70</sup>

The number of gates of the Themistoklean fortification is also currently unknown. The type of gate with an interior courtyard that has been dated to the Themistoklean period is documented at the Dipylon Gate and in the foundations of the Sacred Gate (Th1), along with a wealth of Archaic finds.<sup>71</sup> Published evidence for this type of gate at other sites is sparse and insufficient for an in-depth study of its form. Here we consider three reported gates of the city wall found outside of the Kerameikos that are possibly Themistoklean.

The foundations of the Piraic Gate, which is located at Irakleidon 50 (Th108, Fig. 13), belong to the type of gate with an interior courtyard.<sup>72</sup>

68. Noack 1907, p. 129.

69. The report of excavation at Th94 (Platon 1963, p. 41) states that "also found were the remains of a construction built of large blocks, possibly the foundations of a tower from the Themistoklean city wall, whose course passes from that area." For the tower at

Th96, see Thompson and Scranton 1943, p. 330, n. 53.

70. Prior to 450 B.C., towers appear to have been rare in Greek fortifications, constructed only along the most exposed stretches, mainly to provide refuge for the sentries; see Lawrence 1983, p. 303.

Figure 12. Themistoklean course, stretch of curtain wall in front of Erysichthonos 18 (Th104):
(a) view from the north; (b) view from the west showing reused Archaic material in lowest course. Travlos Archive, photography folder "Threpsiades Archive" (Petralona; Copies of photographs of city wall at Erysichthonos Street). Courtesy Archaeological Society at Athens

71. Gruben 1964, pp. 390–404 (Dipylon Gate); Noack 1907, pp. 139–140 (Sacred Gate). Two phases of Themistoklean construction of the Sacred Gate have now been identified; see Kuhn 1995, pp. 650–653, 658–659. 72. Spathari 1982, p. 25, fig. 2.



Figure 13. Piraic Gate, remains of north flank at Irakleidon 50 (Th108); view from the southwest showing reused material (at left). Photo A. M. Theocharaki

These foundations were dated to the 4th century B.C.<sup>73</sup> The presence of a considerable number of reused blocks in the foundations, however, might be associated with the Themistoklean phase. Although the reuse of building material is generally not a reliable dating criterion, especially when not connected to the evidence from pottery and stratigraphy,<sup>74</sup> the use of these blocks within the foundation level suggests that they are part of the original construction.<sup>75</sup> In addition, it appears that blocks were not reused in the construction of the curtain wall of phases 2, 3, and 6, and they are reported in only limited numbers for phase 7. Hence, on a 4th-century dating of the gate, these foundation blocks might belong to phase 4 or 5, and on a 5th-century dating, to phase 1.

In the report of the excavation of another gate, which came to light on the road surface at Erechtheiou 25 (Th89), Miliadis noted that none of the recovered pottery could be associated with a Themistoklean construction phase. <sup>76</sup> Based on the evidence of excavation at the adjacent land plot at Erechtheiou 25 (Th90), however, Travlos states that it is "definite that at the same location there was also an older entrance, from the 5th century B.C., remains of which were found." As regards the type of gate, Travlos's sketch of this entrance (Fig. 14) might support its identification

73. Spathari 1982, p. 24.

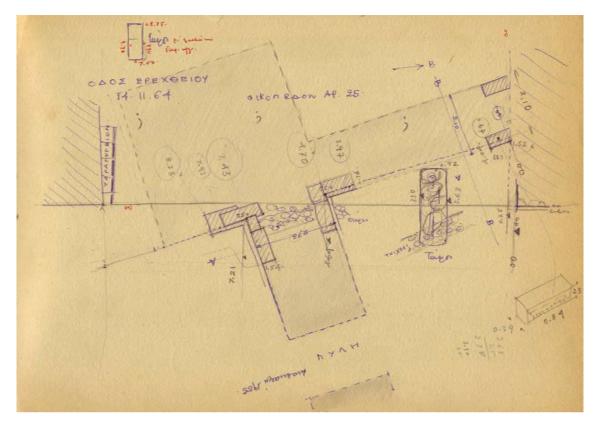
74. The reuse of Archaic materials in the ancient Athenian city wall was commonly associated with Themistoklean construction as late as the end of the 19th century. For example, the dating of the wall at Dragatsaniou 6 (Th32) to the Themistoklean phase was based on the discovery of an Archaic inscription used as building material for the wall (Rusopulos 1872). Philios (1903, p. 45) subsequently refuted this dating. The problem of automatically attributing wall construction in reused materials to the Themistoklean city wall did not go unacknowledged, and

was aptly summarized by, among others, Oikonomos (1920–1921, p. 56, n. 1): "Archaic works once incorporated into the Themistoklean wall happened to be reincorporated into subsequent walls after the eventual demolishing of part of the Themistoklean wall." For a recent dating of a stretch of the city wall to the Classical period on the evidence of Archaic material at location Th27, see Lyngouri-Tolia 1999, pp. 61–62.

75. The reused material at Th108 is not mentioned in the excavation report (Spathari 1982, pp. 23–24).

76. Miliadis 1955, p. 40.

77. Travlos 1960, p. 53. A range of dates has been assigned to the gate at Th89: eastern wall, "Lykourgan?" (Miliadis 1955, p. 40); Kononian (Travlos 1960, p. 53); western wall, 20–30 years after "Lykourgan?" (Miliadis 1955, p. 40). Brouskari (1980, p. 15) proposes that both sections date after the battle of Olynthos of 348 B.c. See also Threpsiades 1950, p. 71, for a brief report of an excavation he carried out at Erechtheiou 25–27, where the remains of the fortification were "similar in construction" to those at Th79, which had been assigned a pre-4th century B.c. dating.



as a typical courtyard-type gate,<sup>78</sup> and the new reconstruction of the line of the Themistoklean course in the area west of Th90 (Th92, Th93) might strengthen this argument.<sup>79</sup>

Finally, there is a third gate, to the west of the *propylon* of the Olympieion (Th56), excavated by Travlos and identified by him as a Themistoklean gate of the city wall. According to his plan, this gate also belongs to the type with an interior courtyard, but no report of this excavation is preserved in the Travlos Archive that would enable us to evaluate the archaeological evidence for the plan.<sup>80</sup>

The Themistoklean fortification was strengthened in at least some areas by a moat, either at the time of the wall's construction or immediately afterward. Excavations have revealed sections of the trench of the Themistoklean moat at only three locations along its course, together with traces of an external ring road dated to the early 5th century B.C. that ran the length of the wall between the Dipylon Gate and the Sacred Gate (Th1; moat trench 5b), east of the Dipylon (Th1; moat trench 5c), and, further to the east, at Dipylou 5–7–9 (Th9). Each of the Sacred Gate (Th9).

Characteristic stretches of the curtain wall of the Themistoklean fortification can be observed in its lower courses at the following locations: west

78. Travlos Archive, folder "Athens" 2N-153, 4 (Erechtheiou 25, 1964). For brief mention of unpublished information that supports the same hypothesis, see Parlama 1990, p. 33, n. 4.

79. See p. 85, above.

80. Travlos, *Athens*, pp. 160, 402. For Travlos's plan, see Vanderpool

1960, p. 268, ill. 1. For a plan of the 1886 excavation at Th56 that shows some remains of the gate before they were assigned to the fortification, see Koumanoudes 1886, pl. 1.

81. Judeich 1931, p. 134, and esp. n. 33.

82. For the Themistoklean moat

Figure 14. Gate of the Athenian city wall (Th89) and adjacent curtain wall (Th90) at Erechtheiou 25. Excavation plan by Travlos. Travlos Archive, folder "Athens" 2N-153, 4 (Erechtheiou 25, 1964). Courtesy Archaeological Society at Athens

in the Kerameikos, see Gruben 1964, p. 414; 1969, p. 35; Knigge 1974, p. 188; for the 5th-century ring road in the Kerameikos, see Gruben 1969, p. 35; Löringhoff 1974, p. 197. For the site at Th9, see Spathari 1980, p. 36.



Figure 15. Themistoklean course, Kerameikos (Th1), curtain wall 1a; view from the north. Phase numbers indicated at right. Photo courtesy Deutsches Archäologisches Institut (neg. D-DAI-ATH-Kerameikos 2460)



Figure 16. Themistoklean course, curtain wall in front of Erysichthonos 18 (Th104); view from the east. Lower courses apparently of reused blocks; top preserved course of limestone blocks with decorative pattern. Travlos Archive, photography folder "Threpsiades Archive" (Petralona; Copies of photographs of city wall at Erysichthonos Street). Courtesy Archaeological Society at Athens

of the Sacred Gate (Th1; Fig. 15), and Erysichthonos 18 (Th104; Fig. 16). Perhaps also Themistoklean is a stretch of curtain wall in the land plot at Dipylou 11 (Th8), immediately to the west of the confirmed stretch of the Themistoklean circuit at location Th9.<sup>83</sup> This association is suggested, first, by a number of pieces of reused poros blocks with *anathyrosis* that are located at the base of the structure (Fig. 17).<sup>84</sup> In addition, Demetrius Schilardi recorded the presence of reused poros blocks also at the base of the wall in the eastern section of this stretch (Fig. 18), at least one of which has *anathyrosis* (Fig. 19, block E).<sup>85</sup> In an unofficial account of the excavation results at Th8, Schilardi interpreted the significance of the poros blocks as follows: "The only definite piece of information from the wall is that the lowest of the three courses, the one constructed of yellowish poros, must

83. The remains of the wall at Dipylou 11 (Th8) have been assigned to two construction phases, which are currently dated to the second half of the 4th century B.C. (Alexandri 1968b, p. 105) and to the end of the

4th century B.C. (Alexandri 1969, p. 41). 84. Alexandri 1969, p. 44, fig. 14. 85. Travlos Archive, folder "Athens" B-148, 9 (Dipylou 11, 1968, Eriai Gates?).

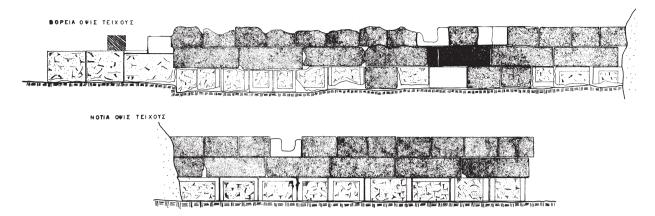




Figure 17 (above). Curtain wall at Dipylou 11 (Th8). Lower course of poros headers with anathyrosis; upper courses of conglomerate blocks. Elevation drawings of the wall, from the north (above) and from the south (below). Alexandri 1969, p. 44, fig. 14

Figure 18 (*left*). Hellenistic all-stone curtain wall built on preexisting foundations at Dipylou 11 (Th8); view from the east. Travlos Archive, photography folder 112 (Photographs from Athens). Courtesy Archaeological Society at Athens

belong to the Themistoklean phase."86 The evidence of these yellowish poros blocks, and of those with *anathyrosis* that are still visible in the stretch of the Themistoklean city wall at Dipylou 5–7–9 (Th9; Fig. 20), raises the possibility that the poros blocks from these two adjacent sites originated from a nearby Archaic building that was in a demolished state when the Themistoklean Wall was constructed.

Another stretch of wall whose structural features might support it being dated to the Themistoklean period was excavated in the land plot at Sophroniskou 9 (Th93).<sup>87</sup> This stretch is an all-stone wall (Fig. 21), dated to the end of the 4th century B.C. in the excavation report for reasons that are not stated. If evidence from pottery and stratigraphy did not provide the grounds for this date, it might have been based on the use of all-stone construction, which in the *Deltion* reports is traditionally assigned to the

86. Letter from Schilardi to Travlos, dated April 1, 1968, p. 4 (Travlos Archive, folder "Athens" B-148, 9 [Dipylou 11, 1968, Eriai Gates?]). In letters exchanged in the spring of 1968, while Travlos was in Princeton, the two discussed the progress of the excavations

at Dipylou 11 (Th8). Based on early results, Travlos had initially estimated that this site presented all necessary preconditions for the location of a gate (letter from Travlos to Schilardi, April 23, 1968). Following the discovery that the moat gave out at the axis of an

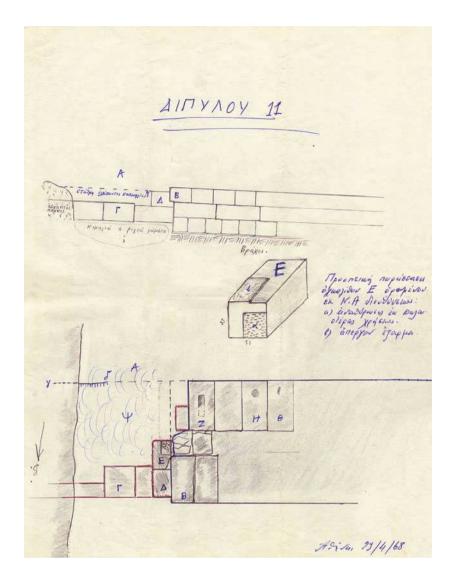
ancient road, a gate was securely identified further to the west, at the intersection of Dipylou and Leokoriou Streets (Th5), and the indications of a gate at Th8 have not been further considered in published reports.

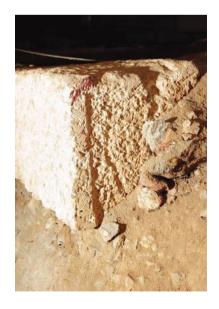
87. Kokkoliou 1997.

Figure 19 (right). Curtain wall at Dipylou 11 (Th8) built of reused materials. Drawing D. U. Schilardi. Travlos Archive, folder "Athens" B-148, 9 (Dipylou 11, 1968, Eriai Gates?). Courtesy Archaeological Society at Athens

Figure 20 (below, left). Stretch of curtain wall at Dipylou 5–7–9 (Th9); view from the southeast. Reused poros block with anathyrosis. Detail of wall shown in Figure 33. Photo A. M. Theocharaki

Figure 21 (below, right). Curtain wall of the Athenian fortification, Sophroniskou 9 (Th93). Dated by its excavators to the end of the 4th century B.C., but probably Themistoklean. Photo A. M. Theocharaki







end of the 4th century B.C. Two features of this stretch of wall, however, might allow it to be assigned to the Themistoklean period. The building material is yellowish poros blocks, not the conglomerate stone that is usual in the all-stone wall. Moreover, the feature of *anathyrosis* that is visible on the surface of some of the poros headers at Th93 documents a reuse of that building material, and constitutes an additional criterion for assigning this stretch to phase 1.

The form of the all-stone construction of this wall, however, is not typical of the Themistoklean circuit, which is comprised of two stone wall faces and a filled core. The siting of this stretch on the slope of the Hill of the Muses might account for the variation. In addition, the absence of any reference in the excavation report to previous construction phases might be an indication that the remains of the circuit wall at Th93 belong to its first phase of construction. This stretch of wall is today in a very good state of preservation, and is accessible in the courtyard of the house of the Theodoridis family.

## Phase 2: Period of the Peloponnesian War (431-404 b.c.)

A construction phase of the city wall occurring after the Themistoklean and before the Kononian phase has been supported archaeologically only at the Kerameikos (Th1; Fig. 15).<sup>88</sup> Possibly also belonging to this phase are two preserved courses of curtain wall in the land plot at Erechtheiou 20 (Th86; Fig. 22), visible today within an accessible archaeological site, which shows similarities in construction to the phase 2 stretch at the Kerameikos.<sup>89</sup> Although we have not been able to conclusively identify remains of this phase in other sections of the wall, phase 2 construction is possibly represented by stretches at three other locations, which have been assigned the following dates by their excavators: "before the 4th century B.C." (Th79), "the end of the 5th century or the beginning of the 4th century B.C." (Th77), and "the end of the 5th century B.C." (Th109).<sup>90</sup>

The wall of this phase was built atop the Themistoklean base and generally reproduced the construction type of the earlier wall, combining a stone base of two wall faces, a core between them, and a mudbrick superstructure. The building material of the socle was polygonal Acropolis limestone blocks. The fitting of the limestone blocks was carried out through the trimming of one or more corners at a diagonal and by the insertion of flat wedges into remaining gaps. Light tooling on the vertical faces of these walls produced a nearly flat surface. The stone base of the curtain wall west of the Sacred Gate (Th1; Fig. 15), including the Themistoklean base, is preserved to a height of 1.70 m. <sup>91</sup> The corresponding courses of the base in the land plot at Erechtheiou 20 (Th86) vary in height between 1.10 and 1.81 m (Fig. 22).

In addition to curtain walls, remains of the phase 2 fortification also include outworks, specifically the *proteichisma* and the moat. The earliest physical evidence of the *proteichisma*, recorded in front of the western tower of the Dipylon Gate, is dated to the second half of the 5th century B.C. <sup>92</sup> A stretch that preserves both a section of moat trench and an associated section of the *proteichisma*, located between the Dipylon and the Sacred

88. Knigge 1991, p. 54 (curtain wall 1a, west of the Sacred Gate) and p. 60 (Sacred Gate).

89. The similarities include the building material and the treatment of the surface of the blocks, up to and including phase 3, and their arrangement in very similarly constructed courses.

90. Threpsiades 1950, p. 71 (Th79); Alexandri 1976, p. 27 (Th77); Philippaki 1966, p. 55 (Th109).

91. Noack 1907, p. 130.

92. Gruben 1969, p. 34; Lawrence 1979, p. 282.

Figure 22. Themistoklean course, stretch of curtain wall at Erechtheiou 20 (Th86); view from the southwest. Lowest course of reused material; second through fourth courses of limestone blocks, smaller in second and third courses, built in polygonal masonry tending toward trapezoidal; all-stone construction on preexisting foundations (at rear). Travlos, Attika, p. 174, fig. 226. Photo © Ernst Wasmuth Verlag GmbH & Co.



Gates, has been assigned to a narrow range of possible dates: immediately prior to the outbreak of the Peloponnesian War, during its early years, or after 426 B.C.<sup>93</sup>

Some parts of the wall in the area of the Kerameikos that show characteristics of phase 2 construction were initially ascribed, by Noack and Maier, to the Themistoklean period. Subsequent excavations at the Kerameikos have supported a revised dating of these remains to the period of the Peace of Nikias (421–416 B.C.). Thucydides' testimony concerning the earthquakes of the 420s B.C. might allow the walls of this phase to be reconsidered as repairs and reconstruction during the period of Kleon (429–422 B.C.) or of Nikias (421–416 B.C.), and in particular following the earthquake of 426 B.C. Unpublished evidence of finds dated to this intermediate chronological period, between phases 1 and 3, may help to refine these dates.

#### 93. Knigge 1974, p. 188. 94. Noack 1907, p. 130; Maier 1959, p. 15.

95. Knigge 1991, pp. 49, 54, 60. 96. Thuc. 3.87.4 (earthquake of 426 B.C.), 4.52.1 (424 B.C.), 5.45.4 (420 B.C.). The 426 B.C. earthquake was one of the more destructive in antiquity, estimated at 7.0 Richter-scale magnitude; see Papazachos and Papazachou 1997, p. 171. A possible hint of fortification works carried out during the period of Kleon might be seen in Ar. Εq. 817-818: σὺ δ' Ἀθηναίους ἐζήτησας μικροπολίτας ἀποφῆναι διατειχίζων καὶ χρησμφδῶν, ὁ Θεμιστοκλεῖ ἀντιφερίζων ("Whilst you, with your walls of partition forsooth, and the oracle-chants which you hatch, would dwarf and belittle the city again, who yourself with Themistocles match!"). For this interpretation, see Milchhoefer

97. Ohly 1965, p. 368.

[1891] 1977, p. 78.

#### PHASE 3: KONONIAN PERIOD (CA. 395-391 B.C.)

The so-called Kononian wall, which was also constructed on top of remains along the Themistoklean course, has been identified in reports of excavations at seven sites (Th1, Th9, Th19, Th58, Th80, Th103, Th106). An additional site (Th108) might be added to this group, as I argue below. The fill between the two stone faces of the base, consisting of small stones, stone chips, and earth (Fig. 23), was laid on top of retained fill of the previous phase. Complete removal of the pre-Kononian mudbrick superstructure is recorded once, in the case of the curtain wall west of the Sacred Gate (Th1). The top surface of the wall socle and the fill between the stone faces had been leveled to receive a new superstructure of mud bricks (Fig. 24).

Construction of the stone base, which measured 2.70–3.00 m in width, was carried out using limestone blocks. The stone base took one of two forms. In the first of these, polygonal and rectangular limestone blocks were placed atop the still-standing courses of previous fortifications (see, e.g., Fig. 16). In the other form, a stone socle of limestone blocks rests on a strong poros foundation course, as illustrated by the northern wall face at Dipylou 5–7–9 (Th9; Fig. 25), which is preserved to its original





height of 0.70–1.04 m in two courses. 98 New sections in this form might have been constructed following the destruction or disintegration of the previous fortification.

The polygonal limestone blocks of this phase of the fortification are carefully set in polygonal or irregular trapezoidal style, showing a tendency toward coursing (see Fig. 22), and they are distinctively large. A sampling of the largest blocks of phase 3 includes an example in the western curtain wall of the Sacred Gate (Th1), L. 1.56 × H. 0.78 m (Fig. 15); at Dipylou 5-7-9 (Th9), L. 1.70 × H. 0.47 m (Fig. 25:a); and at Erechtheiou 20 (Th86), L. 1.45 × H. 0.87 m (Fig. 22). Triangular wedges were often inserted at their joints (Figs. 15, 25:a). The quarry-face or hammered face of the blocks in some cases has been enhanced by the addition of long grooves cut with a pointed chisel, which sometimes run downward across the vertical face (Fig. 25:a) and sometimes parallel to the length of the block (Fig. 25:b). The grooves usually seem to have been hurriedly executed, but sometimes they follow a decorative pattern such as furrowed work (Figs. 16, 26, 27) or broached work (Th1).99 Our study of the wall remains of phases 2 and 3 reveals that the distinguishing characteristics are the size of the stone blocks and the treatment of their exposed surfaces.

Another set of remains that might belong to phase 3 is in the eastern section of the north flank of the Piraic Gate (Th108), which is located at Irakleidon 50, where it is accessible in the courtyard of an apartment block (Fig. 13). The polygonal block in the top course is typical of the building material of this phase (Fig. 28). Construction in polygonal limestone blocks is also attested in a sketch of wall remains at Vourvachi 2 (Th64), where, in addition, wedges were set into the joints, and the undated stretch recovered at Erysichthonos 7 (Th114) was built of limestone blocks in polygonal masonry. These two sets of remains should probably be assigned to phase 2 or phase 3.

Outworks along the exterior of the curtain wall are also documented from the Kononian period, so far exclusively in the Kerameikos. Excavators

Figure 23 (*left*). Fill between the two stone faces of curtain wall, Erysichthonos 15 (Th109). Photo G. Hellner, courtesy Deutsches Archäologisches Institut (neg. D-DAI-ATH-Athen Bauten 673)

Figure 24 (right). Themistoklean course, stretch of curtain wall at Erechtheiou 20 (Th86). Mudbrick superstructure on limestone base. Travlos Archive, photography folder 112 (Photographs from Athens). Courtesy Archaeological Society at Athens

98. The measurement was made during my visit to the site.

99. Scranton (1941, pp. 49–50) discusses the example of broached work on curtain wall 1b in the Kerameikos (Th1); illustrated in Noack 1907, fig. 1, following p. 123.

100. Th64: Travlos Archive, folder "Athens" 4N-155, 5 (City wall on Vourvachi Street, Miliadis and Threpsiades excavation). Th114: Philios 1903, p. 43, n. 2.



a

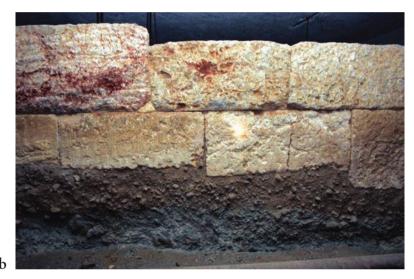


Figure 25. Themistoklean course, northern curtain wall at Dipylou 5–7–9 (Th9); view from the north. Limestone blocks on poros foundation: (a) detail from east section of wall; (b) detail from west section. Photos A. M. Theocharaki

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Figure 26. Themistoklean course, Iosiph ton Rogon 8 (Th58). Limestone blocks with decorative pattern. Travlos Archive, photography folder 112 (Photographs from Athens). Courtesy Archaeological Society at Athens



Figure 27. Themistoklean course, stretch of curtain wall in front of Erysichthonos 17 (Th106); view from the northeast. Irakleidon Street at rear. Photo courtesy Deutsches Archäologisches Institut (neg. D-DAI-ATH-Athen Bauten 356)

at the site have reported a moat dating to this period, dug as an extension to the original moat, between the Dipylon and Sacred Gates (Th1; moat trench 5b).  $^{101}$  Also, the fill of the pre-Kononian moat to the east of the Dromos, the main road leading from the Dipylon to the Academy, is reported to have been cleared at the beginning of the 4th century B.C.  $^{102}$  With the completion of these works, the moat was demarcated by a boundary stone, inscribed by 600 Teluatog 30 May 30 Ma

Following the discovery of this boundary stone, Gruben proposed that a water-filled defense moat had enclosed the course of the Themistoklean circuit as early as the 5th century B.C., and had extended, at a minimum, from the Sacred Gate (Th1) to the gate in the land plot excavated at Mitropoleos 15–17 (Th44); at this location extensive water-channeling works employing a complex network of drains have been documented in the trench of the moat. <sup>105</sup> No report of other rescue excavations has confirmed the suggestion of a water-filled moat. The correlations between drains and the identification of roads present a fruitful area for study. Excavated remains of drains along the Athenian circuit wall are shown on the map in Figure 1.

Assignment of a Kononian date to stretches of the city wall is primarily based on literary references to Konon's military activities. During the Corinthian War, after the Spartan navy was demolished at Knidos in 394 B.C. by Konon and Pharnabazos, Konon returned to Athens victorious. Referring to these events, orators including Isokrates (5.64), Demosthenes (20.72), and Aelius Aristides (1.280) emphasized the connection between the reconstruction of the walls by Konon and the recovery of Athenian hegemony. The great importance of the walls as proof of Athenian power is also suggested by the emphasis in the ancient sources on the large sums of money raised to ensure their construction. 106

Against this historical background, prior destruction of Athens' circuit wall has been traditionally presumed.<sup>107</sup> On this view, the reconstruction of the fortification at the time of Konon can be understood to refer to the entire defense system of Athens, including the circuit wall; some ancient references to the walls of the polis (Andok. 3.36), the walls of the *patris* 

101. Knigge 1974, p. 188. 102. Gruben 1964, p. 414 (4th century в.с.); 1969, p. 35 (375 в.с.). 103. Gruben 1964, p. 414 (*SEG* XXI 651).

104. Knigge 1991, p. 78. 105. Gruben 1964, p. 414, n. 20 (Th1); Threpsiades 1960, p. 26 (Th44). 106. E.g., Xen. *Hell.* 4.8.9; Diod. Sic. 14.85.3.

107. Travlos, *Athens*, p. 50; *Attika*, p. 344; Spathari 1987, p. 20; Knigge 1991, pp. 36, 50.



Figure 28. Piraic Gate, Irakleidon 50 (Th108). Polygonal limestone block (at top); detail of wall shown in Figure 13. Photo A. M. Theocharaki

(Isok. 5.64), and the walls of the Athenians (Xen. *Hell.* 4.8.9) can be seen to confirm that view. It must be acknowledged, however, that the ancient accounts of Lysander's destruction of the Athenian defense system in 404 B.C., and of its subsequent rebuilding, can be securely related only to the walls of Piraeus and the Long Walls.<sup>108</sup>

Significant epigraphical evidence concerning the fortification of Athens at the time of Konon can be found in *SEG* XIX 145 (395–391 B.c.), lines 1–5; *IG* II<sup>2</sup> 1660 (393/2 B.c.), lines 1–5; *IG* II<sup>2</sup> 1661 (393/2 B.c.), lines 1–8; *IG* II<sup>2</sup> 1663 (393/2 and 392/1 B.c.), lines 3, 7; and *SEG* XXXII 165 (392/1 B.c.), lines 1–4. These inscriptions were found in the Agora and on the Acropolis and its slopes, but we do not know to which section of the city wall each refers. On the basis of their similarities, they have been classified among a group of inscriptions that refer to repairs of Athenian fortifications (*IG* II<sup>2</sup> 1656–1664) but not conclusively to the Athenian city wall.<sup>109</sup>

Archaeological research has established that the monumental limestone construction carried out in phase 3 resulted in an exceptionally durable reconstruction of the Athenian circuit wall. The acquisition of large quantities of hard limestone, the meticulous treatment of the surface of the blocks, and the exquisite quality of the masonry indicate an extensive

108. Testimony of the city's defense system is more precise in several later sources that mention the rebuilding of the fortification with direct reference to the *asty* (e.g., Nep. *Konon* 4.5, Plut. *Mor.* 213B, Just. *Epit.* 6.5.8–9, Oros. 3.1.23–24). For an extensive discussion of the vagueness of ancient sources

regarding the dismantling of the Athenian circuit wall, including the testimony that the Spartans "left Athens' city wall in place" in 404 B.C., see Conwell 2002.

109. It has been argued that an inscribed copy of the 4th-century B.c. law  $IG II^2$  244 and its associated *syngraphai* 

were set up near the section of the fortification whose repair the *syngraphai* directed, i.e., at Mounychia (Richardson 2000, p. 608). The wall-building accounts of the 390s, *IG* II<sup>2</sup> 1656–1664, do not provide comparable indications of the works they directed; see Conwell 2008, pp. 112–115.

and systematic reconstruction of the city's fortification wall. Yet there is no definitive archaeological evidence for dating the physical remains of this wall to the Kononian period. The decorative grooves on the surface of the limestone blocks at Th58 (Fig. 26) and Th106 (Fig. 27) have been reported by excavators as typical of the Kononian type of fortification. 110 Decorative grooves on limestone blocks have also been reported at Th79 and Th104 (Fig. 16). 111 This feature, however, is characteristic of an archaistic imitation found in polygonal masonry of general 4th-century B.C. and later date. 112 Stretches of the city's fortification that present structural features associated here with phase 3 have been regularly assigned to the Kononian period, but stretches of the curtain wall that preserve a "socle of orthostates" (Th66)113 or irregular trapezoidal masonry (Th77) or two limestone faces (Th94) have also been assigned to other dates within the 4th century B.C. On present evidence, remains of the city wall assigned here to phase 3 might belong to the systematic construction of the city's fortification in phase 6 (337/6 B.C.).

## PHASE 4: AFTER THE BATTLE OF OLYNTHOS (348 B.C.), Possibly at the Time of Euboulos (355-346 B.C.)

The fall of Olynthos in 348 B.C. and the ensuing Macedonian threat to the city's safety have been recognized as incentives to the Athenians to restore their city's fortification. The ancient literary sources, however, provide no testimony of a specific link between construction on the circuit wall and the fall of Olynthos, and few remains of the fortification have been assigned to a date of 348 B.C. or shortly therafter.<sup>114</sup>

Evidence from the ancient literary sources concerning works on the city's walls during the period of Euboulos's governing (355-346 B.C.) is also indecisive. According to Demosthenes, who criticizes Euboulos for inadequate concern regarding the city's fortification, public works on the walls at the time were largely repairs to their plaster: καὶ τί ἂν εἰπεῖν τις ἔχοι; τὰς ἐπάλξεις ὰς κονιῶμεν, καὶ τὰς ὁδοὺς ὰς ἐπισκευάζομεν, καὶ κρήνας, καὶ λήρους; (3.29) ("And to what can you point in proof? To the walls we are whitewashing, the streets we are paving, the waterworks, and the balderdash?"); δημοσία δ' ύμεῖς ὰ μὲν οἰκοδομεῖτε καὶ κονιᾶτε, ὡς μικρὰ καὶ γλίσχρα, αἰσχύνη λέγειν (23.208) ("as for the public buildings that you put up and whitewash, I am ashamed to say how mean and shabby they are"). 115 Xenophon (*Poroi* 6.1; 355/4 B.C.) recommends that the Athenians "repair the walls and docks" (τείχη δὲ καὶ νεώρια ἀνορθώσομεν).  $^{116}$  Fortification work during the period of Euboulos is mentioned by Cornelius Nepos (*Timoth.* 4.1), who reports that Konon's grandson, also called Konon, in serving part of his father Timotheus's sentence after Timotheus's death, was asked by the people of Athens (populum) to deposit 10 talents for repairs to a stretch of the wall. The repairs took place after Timotheus's death, dated to 354 B.C. 117 It is uncertain, however, whether these repairs were part of a planned reorganization of the fortification or scheduled maintenance works.

Archaeological evidence of mid-4th century B.C. curtain walls is reported at three locations (Th60, Th77, Th94), and stretches of the *proteichisma* are assigned to this date at Th4, Th48, Th60, and Th68. The stretches of curtain wall do not present a group of common structural features (see Table 2). Although all are constructed of two wall faces, their

110. Philippaki 1966, p. 65 (Th58); Noack 1907, p. 505 (Th106).

111. Travlos Archive, folder "Athens" 3N-154, 4 (Misaraliotou Street) (Th79); Travlos Archive, photography folder "Threpsiades Archive" (Petralona; Copies of photographs of city wall at Erysichthonos Street) (Th104).

112. Orlandos [1955–1958] 1994, vol. 2, pp. 220, 248. Scranton (1941, pp. 49–50) proposed that curtain wall 1b between the Dipylon and the Sacred Gates (Th1), constructed of limestone polygonal blocks bearing broached work, dates to the mid-4th century B.C. and that, more generally, "broached work begins in the second quarter of the fourth century, and lasts until the end of the third quarter" (p. 98).

113. Pandou 1978, p. 18.

114. A fortification phase in this period was identified by Travlos (1960, p. 75, n. 1) at location Th32 and by Brouskari (1980) at Th89 and Th90.

115. Further reference to inadequate public works at the time of Euboulos is contained in Dem. 13.30.

116. For this date of the *Poroi*, see Gauthier 1976, pp. 1–6.

117. APF 13700.

building materials vary: there are limestone blocks (Th94) and stretchers of conglomerate (Th60). The masonry is described as irregular trapezoidal (Th77) and as built with rectangular blocks (Th60).

Scholars have assumed that Euboulos's concern for the city's financial recovery after the Social War allowed for the building of new ships, the safeguarding of the water supply against pirates, and the undertaking of necessary fortification works. 118 Athens' efforts under the rule of Euboulos to secure itself in the shipping sector have been argued, on the other hand, to relate more directly to commercial aims than to military aims, intended to restore revenues that were severely threatened by piracy after the Social War. 119 I would propose that the fortification remained in fairly good condition during Euboulos's time, and that the sources remain silent about extensive fortification works for that reason; maintenance work, either the regular coating of the superstructure with plaster or refinements on the battlements, might have been the only fortification works undertaken. In any event, soon after Euboulos, the Athenians were able to gather the population of the countryside within the city (Dem. 19.125), which attests that works on the circuit wall during the time of Euboulos appeared to provide an effective defense.

#### PHASE 5: AFTER THE BATTLE OF CHAIRONEIA (338 B.C.)

Their defeat at Chaironeia in 338 B.C. turned the Athenians toward a period of intense military preparation. Among the emergency measures taken by the Assembly was the evacuation of the surrounding areas and the concentration of the inhabitants within the city walls (Aischin. 3.80, Dem. 18.36, Lykourg. 1.16). During this time, the fortification was likely in a precarious condition. Lykourgos (1.44) reports the efforts of the Athenians who assisted in the restoration of the walls: ἐπεμελοῦντο γὰρ οἱ μὲν τῆς τῶν τειχῶν κατασκευῆς, οἱ δὲ τῆς τῶν τάφρων, οἱ δὲ τῆς χαρακώσεως· οὐδεὶς δ' ἦν ἀργὸς τῶν ἐν τῆ πόλει ("Some set themselves to building walls, others to making ditches and palisades. Not a man in the city was idle"). Quarrying of new materials for the construction of the wall would have been impossible under these emergency conditions, and as in the construction of the Themistoklean fortification, even funerary monuments were used as building material.

The range of the works was reportedly extensive, as work took place on the entirety of the fortifications: the walls, the moat, and the palisade fence, which was fixed into the ground along the rim of the moat. Only some works on the curtain wall and on the moat at the Kerameikos have been documented in archaeological remains. At present, the occurrence of this phase is based primarily on historical criteria.

#### PHASE 6: 337/6 в.с.

A year after the battle of Chaironeia, the Athenians, under the guidance of Lykourgos and Demosthenes, allocated significant funds for a systematic reorganization of the fortification. The bulk of written information on these works comes from the orations of Aischines and Demosthenes, which suggest that restoration of the fortification wall was part of a broader program implemented within a climate of military preparation.<sup>121</sup> In his

118. Cawkwell 1963, pp. 61–66; Mitchel 1973, p. 192. On the increase of naval power at the time of Euboulos, see *IG* II<sup>2</sup> 1611, 1613, and 1627, lines 352–354.

119. Burke 1984, p. 116. 120. Gruben 1969, p. 35; Knigge 1974, p. 188.

121. Other sources for military preparation during the time of Lykourgos include *IG* II<sup>2</sup> 1467, which provides evidence that Athens was equipped with torsion catapults by 326 B.c. (see Marsden 1969, p. 57), and *Ath. Pol.* 42.3, which states that instruction of Athenian epheboi on the use of catapults was introduced after the battle of Chaironeia.

speech *On the Crown* (330 в.с.), Demosthenes depicts himself as an active promoter of restoring the fortification: ἡ διάταξις τῶν φυλάκων, αἱ τάφροι, τὰ εἰς τὰ τείχη χρήματα, διὰ τῶν ἐμῶν ψηφισμάτων ἐγίγνετο (18.248) ("the disposition of outposts, the entrenchments, [and] the expenditure on the fortifications were taken on resolutions moved by me"). In his role as one of the *teichopoioi*, the commissioners for the repairing of walls, Demosthenes was responsible for the Piraeus section for the tribe Pandionis and administered the 10 talents given by the state for that section (Aischin. 3.14, 23, 27–28, 31).

Epigraphical testimony on the building of the Athenian fortification system during this phase includes the inscription *IG* II<sup>2</sup> 244. Its dating is not certain, but it is generally assigned to the year 337 B.C. through association with the extensive fortification works that, according to the literary sources, began within a year of the loss at Chaironeia. *IG* II<sup>2</sup> 244 preserves a law concerning repairs of the walls at Eetioneia, the rest of Piraeus, and the Long Walls (lines 1–46) and *syngraphai* concerning construction at Mounychia, including restoration of a round tower (lines 47–113). The detailed legal stipulations, on a variety of issues and under the strong influence of the Assembly, indicate that this was a major project, possibly undertaken with a view to countering advanced siege methods and weapons that had recently been invented by the Macedonians. We can expect that, in this context, such a project would have involved *teichopoioi* elected from all 10 tribes, commissioning work on sections of the fortification in addition to those at Piraeus, including the Athenian circuit. L123

The following passage from Demosthenes (18.299–300) includes a reference to the Athenian circuit wall: οὐ λίθοις ἐτείχισα τὴν πόλιν οὐδὲ πλίνθοις έγώ, . . . καὶ τούτοις ἐτείχισα τὴν χώραν, οὐχὶ τὸν κύκλον τοῦ Πειραιῶς οὐδὲ τοῦ ἄστεως ("I did not fortify Athens with masonry and brickwork . . . and therewith I fortified, not the ring-fence of our port and our citadel, but the whole country"). An allusion to works in addition to those in Piraeus and on the Long Walls can also be detected in IG II<sup>2</sup> 244, and was possibly anticipated by a previous law, referred to in lines 12-13: όπως δ' ὰν καὶ χρήματα εἰς τὰ [ἔργα - - <sup>66</sup> - - κατὰ τὸ]ν ἐνιαυτὸν ἕκαστον έκ τοῦ προτέρου νόμο ("so that money [is] also [given] for the [works]... year by year according to the previous law"). The recurring καί in lines 12 and 43, if not considered a grammatical conjunction, is perhaps used with the sense of "moreover," suggesting the existence of other works directed by the previous law, <sup>124</sup> and if the two instances of ὅπως ἄν ("in order to") (lines 2 [restored] and 12) introduce stipulations of this law that correspond to those of the previous law, τοῦ προτέρου νόμο, this previous law might have included a section concerning the funding and rebuilding of the circuit wall. Repairs of the Athens circuit wall might have been part of a broader legislative provision.

Because the testimony from the ancient literary and epigraphical sources has not been securely identified with specific parts of the fortification of the period, the occurrence of this phase is not archaeologically supported. On our understanding, the excavators' assignment of dates of the second half of the 4th century to several parts of the wall (at Th8, Th29, Th32, and Th86) has been based mainly on historical criteria. These stretches share construction features with those of other phases of the fortification

122. Maier 1959, pp. 36–48, n. 10; Cawkwell 1963, p. 66, n. 109; Mitchel 1973, p. 196; Conwell 2008, pp. 135– 145.

123. According to Jones, Sackett, and Eliot (1957, pp. 187–188) and Conwell (2008, p. 135), the fortification project also concerned the circuit wall of Athens, the Long Walls, and Attica's borderland fortresses.

124. This observation is owed to a suggestion by R. S. Stroud, whom I deeply thank for our very interesting conversation.

(see Table 2). Finally, of the 10 stretches of the wall that have been dated more generally to the 4th century B.C. (Th50, Th57, Th62, Th64, Th66, Th67, Th71, Th83–Th85), it has not been determined whether any might be related specifically to phase 6.

#### Рнаѕе 7: 307-304 в.с.

On the history of the walls of Athens for the 30 years following the great rebuilding program in 337/6 B.C., there is no evidence. The next attested construction activity on the wall is the systematic overhaul of the fortification when the city was under the control of Demetrios Poliorketes. That project, undertaken by the Athenian state in anticipation of a probable siege by Kassandros, was placed under the charge of Demochares, the nephew of Demosthenes.

Inscriptions that are dated to the end of the 4th century B.C. inform us about repairs and guarding of the walls. For their contributions toward the repairs of a tower, for example, prosperous citizens were honored in the inscription IG II<sup>2</sup> 740, dated between the end of the 4th century B.c. and the beginning of the 3rd. 126 Honors that were granted to Demochares for his contribution toward the οἰκοδομὴν τειχῶν, καὶ παρασκευὴν ὅπλων καὶ βελῶν καὶ μηχανημάτων ("the building of the walls and the preparation of armour, missiles, and engines of war") during the Four Years' War (307–304 B.c.) are recalled in Plutarch's Moralia (10.851D). The role of the commanders in charge of the successful guarding of the walls for the year 305/4 B.C., during which Kassandros's siege of 304 B.C. took place, is commemorated in the honorary inscription IG II<sup>2</sup> 500, dated to 305/4 B.C. But the most important testimony connected to the fortification during this period is provided by IG II<sup>2</sup> 463. Dated to 307/6 B.C., it preserves a decree and syngraphai concerning an extensive strengthening of the old fortification system, including the circuit wall of Athens, the Long Walls, and the circuit wall of Piraeus. 127 Possible correspondences between the text of IG II<sup>2</sup> 463 and remains of the fortification are discussed next.

We might identify these sections in preserved stretches that were constructed on new foundations (Fig. 29). Reports of excavations at seven locations record new foundations in all-stone construction dated by their excavators within the 4th century B.C.: Th29, Th32, Th61, Th62, Th71, Th93, and Th109. We have identified evidence for an additional five at Th5, Th50, Th83, Th99, and Th100 (see Table 2, "Structure," col. 7).

Other correlations between  $IGII^2$  463 and archaeological remains might also be possible. Line 38 of the text (Maier 1959, no. 11) mentions stretches of the fortification that  $[\dot{\omega}_\zeta \, \dot{\epsilon}_{\chi\nu\rho}\dot{\omega}] \tau\alpha\tau[\alpha] \, \dot{\alpha}\nu \, \dot{\epsilon}_{\pi\iota\sigma\kappa}[\epsilon] \nu < \alpha\sigma\theta > \hat{\omega}\sigma\iota\nu$  ("should be repaired to ensure effective defense"). The Hellenistic Dipylon at the Kerameikos (Th1), a characteristic example of an all-stone fortification structure

125. It has been suggested that repairs to the walls were necessitated following great destruction caused by an earthquake or flood near the end of the century (Knigge 1991, p. 40). An earthquake occurred in Sikyon in 303 B.C.; see Papazachos and Papazachou 1997, p. 173.

126. Maier 1959, pp. 73-76, no. 14.

127. Maier 1959, pp. 56-57.

128. The all-stone stretch at location Th93 is assigned in the present study to phase 1 (see pp. 110–112).



Figure 29. Hellenistic curtain wall of all-stone construction, Erysichthonos 15 (Th109). Note reused material in the core. Photo G. Hellner, courtesy Deutsches Archäologisches Institut (neg. D-DAI-ATH-Athen Bauten 669)

in Athens, is dated to the period 307–304 B.C. on the basis of coins and pottery, and preserves remains of preexisting fortifications. We might add to the number of all-stone Hellenistic stretches of the fortifications another five cases reported as having stood on preexisting foundations (Th8, Th16, Th71, Th85, Th86 [Fig. 22]). An additional seven locations preserve undated wall finds of the same type (Th17, Th34, Th43, Th63, Th111, Th112, Th115), which raises the number of sets of all-stone fortification remains to 25 (Fig. 30, preserved at 24 locations). If the text of *IG* II<sup>2</sup> 463 (Maier 1959, no. 11), lines 38–39, corresponds to these 25 sets of remains, the evidence might provide a date for the first systematic application of the all-stone typology to the Athenian fortification. Such all-stone construction would have provided the city with a more effective defense against the siege methods and weapons introduced in the period before the Four Years' War. It

One dimension of the blocks to be used in the construction described in IG II $^2$  463 (Maier 1959, no. 11) is explicitly specified (lines 41–42): μὴ ἐλάττοσι[ν ἢ] τριημιποδί[οις] ("not less than three half-feet"), i.e., 1.50 feet or 0.49 m. Conglomerate blocks of the Hellenistic wall at Th1 have been recorded with approximate dimensions of L.  $4 \times H$ .  $1.5 \times W$ . 2 feet (1.30  $\times$  0.49  $\times$  0.66 m), and the height of one block from a wall at that location measures 0.49 m. <sup>132</sup>

Noack had suggested that the text of  $IG~II^2~463$  preserves the first mention of the all-stone type of the Athenian city wall. <sup>133</sup> Judging from

129. On the date, see Gruben 1970, p. 125; on earlier fortifications, see Gruben 1964, pp. 390–407.

130. At location Th71, the all-stone construction was documented in two sets of remains on Syngrou Avenue, one on previous foundations, and one on new ones (Stavropoulos 1965, pp. 87–93).

131. Evidence for intensive efforts in the development of artillery in this period is discussed in Marsden 1969, pp. 69–70.

132. Gruben 1964, p. 389 (Th1). Other conglomerate blocks in the Hellenistic city wall that preserve these approximate dimensions have been recorded in a curtain wall at Th9

(L.  $1.27-1.36 \times H. 0.40-0.45$  m; measurement by author), in the *proteichisma* at Th69 (L.  $1.18-1.33 \times H. 0.40-0.50 \times W. 0.63$  m; measurement by author), and in the *proteichisma* at Th88 (L.  $1.25 \times H. 0.47$  m; Parlama 1990, p. 34).

133. Noack 1907, p. 493.

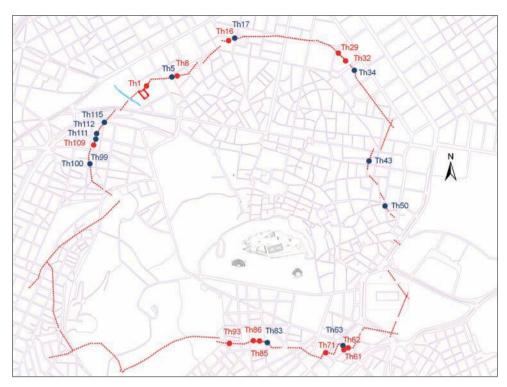
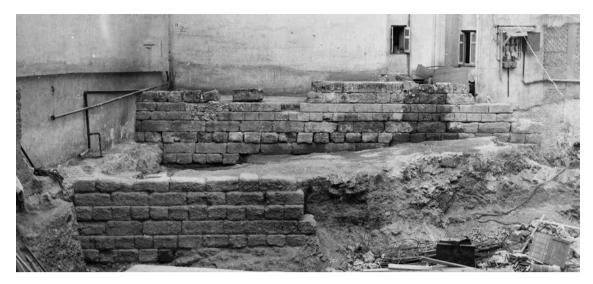


Figure 30. Locations of all-stone city wall remains documented in excavation reports (in red); locations of additional stretches (in blue) identified by the author. A. M. Theocharaki and M. Pigaki

archaeological and epigraphical evidence, the construction of all-stone walls was widespread in Greece by the end of the 4th century B.C., but epigraphical confirmation of their earliest construction in Athens is not entirely secure. <sup>134</sup> The use of the word *lithologema* in respect to a series of works directed in *IG* II<sup>2</sup> 463 (Maier 1959, no. 11) might provide means for identifying other examples. Below, we explore possible correlations between the text of *IG* II<sup>2</sup> 463 and the construction of all-stone walls at Athens.

Lines 47–48 refer to the provision of building materials in the case of a specific condition of the λιθολόγημα: Έὰν δέ τι πτωματίσει μέχρι τοῦ λιθολογήματ[ος ..................................] παρέξει καὶ ἐξοικοδομήσει ("If a section of the wall collapses above the level of the unworked stone ... he will provide and fully rebuild"  $[LSJ^9]$ ). This could mean that the supplier would have to provide the material necessary for building to the level of, but not including, the lithologema, and appears to distinguish the lithologema from the stone blocks with which the wall was to be built.

134. Greek walls built of stone are dealt with in Winter 1971, pp. 77–88. For all-stone construction of towers at Piraeus and at Eleusis, see Maier 1961, p. 105. Conwell (2008, pp. 137, 139 with n. 35) discusses the evidence of the *syngraphai* preserved in *IG* II<sup>2</sup> 244 (337 B.C.), lines 47–113, and the possibly associated archaeological remains, in connection with the use of stone blocks in the core of a circular tower at Mounychia.



the all-stone construction of the Athenian city wall. It cannot be determined whether the walls described in the inscription were to have the usual superstructure of mud bricks or whether the construction in stone continued to the top of the walls. <sup>135</sup>

IG II<sup>2</sup> 463, then, provides information about construction of the wall to a point short of its full height, possibly only as far as the base. The presence of all-stone upper courses in some stretches of the Hellenistic enclosure suggests that the wall of the end of the 4th century might have been constructed in stone above that height. Stretches of the Hellenistic enclosure that preserve all-stone construction in upper courses have been found, for example, in the land plot at Aristeidou and Pesmazoglou Streets (Th29, H. 2.96 m, seven courses; Fig. 31), Dragatsaniou 6 (Th32, H. 4.50 m, nine courses), and Vourvachi 3 (Th61, six courses). At present, the only wall of the Hellenistic fortification suggested to have been all-stone for its full height is that of the Hellenistic Dipylon (Th1), mentioned above. 136 Originally constructed of 20 courses of stone blocks, and reaching an estimated height of 30 feet (9.81 m), it has been interpreted as evidence that a 10 m height might have been specified for the more vulnerable parts of the fortification and might have been directed, in particular, for the parts of the city wall that had been destroyed and were to be rebuilt on new foundations.

Figure 31. All-stone Hellenistic construction at the intersection of Aristeidou 14 and Pesmazoglou Street (Th29). Curtain wall at rear. External ring road (middle); proteichisma (foreground). Travlos Archive, photography folder 112 (Photographs from Athens). Courtesy Archaeological Society at Athens

135. Of the superstructure of the wall, *IG* II<sup>2</sup> 463 (Maier 1959, no. 11) provides information only about materials used for the construction of the wall-walk and its roofing (καταστεγάσει δὲ κα[ὶ] τὴν πάροδον, line 52) and about certain towers that were also to be repaired (lines 50–52). Various identifications of the *katastegasmata* have been suggested; see Caskey 1910; Holland 1950; Maier 1959; Winter 1959; Garlan 1974, pp. 266–267.

136. Gruben 1964, p. 389.

137. Winter 1959, pp. 187–188; Garlan 1974, pp. 263–265; Lawrence 1979, pp. 368–369. IG II $^2$  244, line 4, mentions τὰ ἔλλοιπα τῶν λιθίνων τειχῶν ("the defective parts of the stone walls") (trans. Richardson 2000, p. 602). The sections of the Long Walls built between 337 and ca. 334 B.C. (Conwell's phase III) are characterized by all-stone construction; see Conwell 2008, p. 4.

138. Winter 1959, pp. 187, 198; 1971, p. 144, n. 61.

#### PHASE 8: EARLY 3RD CENTURY B.C.

The strengthened walls that enclosed the city by 304 B.C., when the building program described by *IG* II<sup>2</sup> 463 was planned to be completed, seems to have secured the defense of Athens at least until Antigonos Gonatas besieged Athens in the Chremonidean War (267–263/2 or 267–262/1 B.C.). When Demetrios Poliorketes returned to the city in 295 B.C. in an attempt to overthrow the regime of Lachares, the fortification was so strong "that even he, a *Poliorketes* (Besieger), was forced to drive the city to surrender through starvation."<sup>139</sup> After the occupation, Demetrios installed a garrison and a fortress on the Hill of the Muses to secure control over the city. Both Plutarch (*Dem.* 34.5) and Pausanias mention this fortress (Paus. 1.25.8): Δημήτριος . . . ἐσήγαγεν ἐς αὐτὸ φρουρὰν τὸ ἄστυ, τὸ Μουσεῖον καλούμενον τειχίσας ("Demetrios . . . brought a garrison even into the upper city, fortifying the place called the Museum").

After successfully besieging this Macedonian garrison in 288 B.C., the Athenians honored their allies Audoleon (*IG* II<sup>2</sup> 654) and Strombichos (*IG* II<sup>2</sup> 666, 667) for their part in the salvation of the city, and around the mid-280s B.C. they decided to construct a new wall along the Hills of the Muses, the Pnyx, and the Nymphs, known as the *diateichisma*. <sup>140</sup> By this time, the Long Walls had been practically deprived of their strategic importance for securing the safety of the city. <sup>141</sup> The 3rd-century B.C. *diateichisma* of the Pnyx might initially have served as a second line of defense, supplementing the Themistoklean line. Information about the condition of the Themistoklean city wall in the area west of the Pnyx at the time that the *diateichisma* was built might provide us a better understanding of the reasons for its construction. At present, no archaeological remains of the Themistoklean fortification are visible in the western section of the city. <sup>142</sup>

Both the Macedonian fortress and the 3rd-century B.C. *diateichisma* were constructed of a base of two stone faces, with a fill of stone chips and soil between them. Remains of a mudbrick superstructure have been

139. Gruben 1970, p. 126. 140. The diateichisma is mentioned in IG II<sup>2</sup> 463 (Maier 1959, no. 11), lines 52-54: Καταστεγάσει δὲ κα[ὶ] τὴν πάροδον [τοῦ κύκλ]ου τοῦ περὶ [τὸ ἄστυ άνευ το]ῦ διατειχί[σμ]α[τ]ος καὶ τοῦ διπύλου τοῦ ὑπὲρ τῶν πυλῶν ("And he will roof the wall-walk that surrounds the city except for the diateichisma and the dipylon over the gates"); it has traditionally been placed along the crest of the three western hills due to the longaccepted chronological correlation between  $IG II^2$  463, dated to 307/6 B.C., and the archaeological remains that have been revealed along the crest of the three western hills (Thompson and Scranton 1943, pp. 333-337). The new dating of the diateichisma of the Pnyx to the years between 300 B.C. and the mid-280s B.C. (Conwell 2008, pp. 178-182), as much as 30 years later than

IG II<sup>2</sup> 463, would require that the inscription refer to a different, earlier diateichisma, which has not yet been identified. Early researchers, such as Curtius and Pervanoglu, had proposed that the diateichisma mentioned in IG II<sup>2</sup> 463 was located in the area southwest of the Hills of the Muses, the Pnyx, and the Nymphs. Curtius (1862, pl. II) suggested a setting between the two legs of the Long Walls, just east of the Ilissos River, and Pervanoglu (1863, p. 532) located it further to the northeast. For Pervanoglu's location of the diateichisma, see Curtius 1862, pl. II, point b; this seems to belong to the line of today's reconstruction of the western course of the Themistoklean enclosure.

141. The strategic value of the Long Walls was connected to the naval strength of Athens and the city's communication with the port of Piraeus. During the period of Athens' independence from Macedonian control (287–263/2 B.C.), when Demetrios Poliorketes remained master of the city of Piraeus, the Long Walls fell into disuse and no longer connected the city to the port; see Conwell 2008, pp. 186–187.

142. Archaeological investigation in the area has provided evidence that the erection of the *diateichisma* defined new boundaries on the southwestern side of the city, which are suggested by a break in habitation between the beginning of the 3rd century B.C., and the beginning of the 2nd century B.C. and by the establishment of a burial ground between the western line of the Themistoklean Wall and the 3rd-century B.C. *diateichisma*; see Conwell 2008, pp. 179–182.

reported at the *diateichisma*. The width of the walls of the *diateichisma* was 2.75–3.40 m, and that of the Macedonian fortress 2.00–3.50 m. The base of both structures was constructed mainly with conglomerate blocks and, rarely, with reused materials. Both were constructed in isodomic masonry, characterized in the Macedonian fortress by a system of two stretchers interrupted by a header, and by a less regular pattern of headers and stretchers in the *diateichisma*. The blocks used in the *diateichisma* are sometimes carefully joined and hewn, and sometimes their surfaces are quarry-faced. The blocks of the Macedonian fortress have a quarry-faced surface. Today, many remains of construction carried out in phase 8 are visible and can be visited at the archaeological site along the crest of the Hills of the Muses, the Pnyx, and the Nymphs (Fig. 1, orange line).

## PHASE 9: AFTER THE CHREMONIDEAN WAR (267-263/2 or 267-262/1 B.C.)

Approximately 20 years after the erection of the 3rd-century diateichisma, there occurred the Chremonidean War and a siege of Athens by Antigonos Gonatas. The ancient literary sources provide little information about the Athenian fortification following the city's surrender and the installation of a Macedonian garrison on the Hill of the Muses. Two inscriptions help to fill in these gaps in our knowledge of the 3rd-century fortification. An honorary decree of the Athenian Assembly, IG II<sup>2</sup> 791 of 247/6 B.C., relates to the guarding of the city. The honorary decree IG II<sup>2</sup> 834, which is dated to shortly after 229/8 B.C., following the release of the Athenians from the Macedonian garrison, informs us about the contributions of the brothers Eurykleides and Mikion to repairs of the walls of Athens and Piraeus. 144 The text of this inscription does not include a mention of the Long Walls (lines 15–17): [καὶ τὰ τείχη τοῦ] Ι ἄστεως καὶ τοῦ Πειραιέως ἐπεσκεύ[ασε μετὰ Μικίωνος τοῦ] Ι ἀδελφοῦ ("and the walls of the city and of Piraeus he repaired together with his brother Mikion"), providing possible confirmation that the strategic value of the Long Walls had, by this time, diminished irreversibly.

Whether the strengthening of the wall during the 3rd century B.C. was limited to the erection of the *diateichisma* and whether reconstruction and repairs were carried out later in the century on other parts of the circuit wall have not been confirmed by archaeological investigation. <sup>145</sup> Works on the fortification are mentioned only in the area of the Sacred Gate and, in respect to a filling up of the moat trench, at sites Th10 and Th105. <sup>146</sup> Currently, the texts of the two 3rd-century B.C. inscriptions *IG* II<sup>2</sup> 791 and 834 correspond with no identified remains of the fortification.

At the end of the 3rd century B.C., the improvements of the circuit wall attested in the two inscriptions appear to have been effective. According to Livy (31.24.9, 31.26.8), Philip V abandoned the idea of invading Athens from the west through the ruined Long Walls in 201/0 B.C. and took to looting the adjoining region. The exact reasons why he refrained from entering the city after a siege are unknown, but the change in his military operations might testify to the effectiveness of the fortification works at the end of the century.

143. See Thompson and Scranton 1943, pp. 303–330, on the *diateichisma*, and p. 331 on the Macedonian fortress.

144. Maier 1959, pp. 76–80, no. 15.

145. Later repairs to the fortification have been reported, but not dated, both for the wall (Th78, Th94, Th104) and for the *proteichisma* (Th48, Th84, Th105, Th110).

146. Knigge 1991, p. 65 (phase 5 of the Sacred Gate [Th1], beginning of the 3rd century B.c.); Spathari 1982 (Th10); Lyngouri-Tolia 1985, p. 138 (Th105).

#### PHASE 10: EARLY 2ND CENTURY B.C.

Ancient written information on the fortification activities of this phase is confined to the text of IG II $^2$  2331 of 172/1 B.C., which relates to the rebuilding of a tower by eminent Athenians: ἐπὶ Σωσιγένου ἄρχοντος οἴ[δε τ--- καὶ] τὸν πύργον ἀν[έ]θ[ηκαν] ("In the archonship of Sosigenes, the following people dedicated [. . .] and the tower"). <sup>147</sup> Whether this project was part of a specific building program is unknown. Archaeological investigation has recovered evidence of substantial work undertaken on the city wall in the 2nd century B.C. in the western and southern sectors of the enceinte.

In the western sector, the so-called White Poros Wall adopted a new course on the Pnyx, west of the *diateichisma* and the East Stoa, that would force an approaching enemy along a steeper slope than before. Constructed in a different design than the *diateichisma*, the White Poros Wall was a strong structure, reinforced along its inner face with a series of buttresses that were possibly joined by vaults. In addition to white poros blocks, which bore a drafted band about 0.10 m wide, the wall incorporated reused conglomerate blocks. The narrowness of the wall, which ranges between ca. 1.35 and 2.0 m, and the great amount of broken stone in the trench have been interpreted as evidence that the wall was of solid masonry throughout its full height.

In the southern sector of the Athenian fortification, a small stretch of wall that has been dated to the 2nd century B.C. might have been constructed following extensive damage to a stretch of the wall to its north along the Themistoklean course. Remains of the 2nd-century wall were discovered at Th88, Th89.1, Th91, and Th92. The configuration of the fortification along Erechtheiou Street has not yet been clarified by research, and involves the still-open question of the connection between the gate at Erechtheiou 25 (Th89), the 4th-century B.C. fortification works on the *proteichisma* and on the retaining wall of the moat at nearby location Th88, and the 2nd-century B.C. rebuilding.<sup>151</sup>

The remains of the 2nd-century B.C. wall at location Th89.1 were identified in the excavation report as compartmentalized, but at Th91 and Th92, as having two stone faces with fill between them. <sup>152</sup> Despite the new siege techniques that prompted the use of all-stone construction in the Athenian circuit wall as early as the middle of the 4th century B.C. and until the 2nd century B.C., it is clear from the archaeological record

147. The date of 172/1 B.c. is taken from Meritt 1977, p. 182.

148. Thompson and Scranton 1943, pl. XVI.

149. Thompson and Scranton 1943, pp. 340–362; Karlsson 1996; and Conwell 1996. The wall was dated by its excavators to the later 3rd century B.C. (Thompson and Scranton 1943, pp. 358–362). Subsequent research, following the redating of the associated pottery, has supported a date in the

early 2nd century B.C., possibly in the late 170s (Conwell 2008, pp. 193–194).

150. Thompson and Scranton 1943, pp. 341, 346–348.

151. For the gate, see above, pp. 107–108. On the problem of a double fortification in the area of the gate at Erechtheiou 25, see Parlama 1990, p. 35.

152. Miliadis 1955, p. 42 (Th89.1); Lyngouri-Tolia 1990, p. 31 (Th91, Th92).



Figure 32. Remains of Hellenistic fortification at Tsami Karatasou 5–7 (Th81). "Double" proteichisma (foreground), curtain wall of phase 10 (four courses at rear). Photo A. M. Theocharaki

that walls with two stone faces remained the traditional type in Athenian fortification until the end of the Hellenistic period.<sup>153</sup> Construction in both types was apparently deemed necessary for the city's defense in the 2nd century B.C., possibly due to conditions imposed by the terrain or by the existing fortifications.

Some remains of 2nd-century B.C. rebuilding were recovered atop stretches of the old *proteichisma*. <sup>154</sup>This work on the fortification was documented at the easternmost stretch of the *proteichisma* excavated on the land plot at Tsami Karatasou 5–7 (Th81, Fig. 32) and at Erechtheiou 18 (Th88). <sup>155</sup> Conversion of the *proteichisma* into a part of the fortification wall cannot at present, however, be considered a diagnostic characteristic of the 2nd-century B.C. fortification, because the same feature has also been reported for the Late Roman period at two locations (Th4, Th60) (see Table 2). <sup>156</sup> Similarly, the feature of compartmentalization, documented in undated repairs to the wall at Erysichthonos 18 (Th104), is also attested for the *diateichisma* at the southeast corner of the Long Stoa (D1), that is, by the beginning of the 3rd century B.C. <sup>157</sup>

#### Phase 11: After the Invasion of Sulla (87/6 B.C.)

The 2nd-century B.C. construction works on the wall appear to have provided the Athenians an initial defense against the Roman general Sulla in 87/6 B.C. According to Plutarch (Sull. 14.1–2), Sulla finally broke through one section of the enceinte at the northwest of the city, by the Heptachalkon, and invaded Athens τὸ μεταξὸ τῆς Πειραϊκῆς πύλης καὶ τῆς ἱερᾶς κατασκάψας καὶ συνομαλύνας (Plut. Sull. 14.3) ("after he had

153. According to Pausanias (8.8.8) and Apollodoros (157.7–158.3), a mudbrick superstructure was more resilient under the blows of a battering ram than a stone construction, because only limited openings would be made in the bricks, while in stone constructions, the

blows would be transmitted from stone to stone, causing more extensive damage and requiring more effort to repair.

154. For possible functions of the *proteichisma* at Tsami Karatasou 5–7 (Th81), see Lyngouri-Tolia 1990, p. 39; 1992, p. 29.

155. Lyngouri-Tolia 1990, p. 39 (Th81); Parlama 1990, pp. 34–36 (Th88).

156. Tsirigoti-Drakotou 2000, p. 90 (Th4); Alexandri 1972, p. 45 (Th60).

157. Thompson 1936, p. 192 (D1); Threpsiades 1953, p. 64 (Th104).



Figure 33. Themistoklean course, southern curtain wall at Dipylou 5–7–9 (Th9); view from the southwest. Reused poros block (center); limestone blocks on poros stretchers (at rear); conglomerate stretchers (foreground). Photo A. M. Theocharaki

thrown down and leveled with the ground the wall between the Piraic and the Sacred Gate"). 158

The city was ravaged mercilessly, and rescue excavations have brought to light some evidence of damage to the fortification in the northern sector. On the land plot at Dipylou 5–7–9 (Th9), according to the excavators a substantial section of the main city wall was destroyed (Fig. 33, center) and a stretch of the *proteichisma* was torn down and thrown into the moat. <sup>159</sup> No traces of the *proteichisma* have been recovered in the adjacent plot of land, at Dipylou 11 (Th8), where its line would have continued. <sup>160</sup> Damage was not confined to the northwestern sector of the city, where the invasion took place, but is also reported at its southern flank: a section of the *proteichisma* discovered in the land plot at Vourvachi 5–7–9 (Th60), its destruction assigned to the period of Sulla's siege on the basis of ceramic evidence, attests damage in this area, and also provides the terminus post quem for the reconstruction of the *proteichisma* into a main wall. <sup>161</sup>

We are not in a position to attempt an overall assessment of the state of the Athenian city wall following Sulla's raid. Archaeological evidence of construction work on the wall at the end of the 1st century B.C. has been securely recorded only in the Kerameikos and is possibly attested for the *diateichisma*. At the Sacred Gate (Th1), the banks of the Eridanos River were reinforced after the attack. In the *diateichisma*, reconstruction in reused ashlar blocks can perhaps be assigned to the period following Sulla's destruction. In Finally, rescue excavations on the city walls have recovered no physical evidence of repairs that have been dated to the 1st century B.C.

From the ancient literary sources, the testimony of Cassius Dio suggests that the city wall might have been in good condition in 48 B.C., when the city was besieged by Calenus, one of Caesar's generals. According to Dio (42.14.1), "Athens he had been unable to take, in spite of a great deal of damage he did to its territory, until the defeat of Pompey" (τὰς γὰρ Ἀθήνας, καίπερ πλεῖστα τὴν χώραν αὐτῶν κακώσας, οὐκ ἡδυνήθη πρὸ τῆς τοῦ Πομπηίου ἥττης λαβεῖν). In Piraeus, his attack was successful, and he turned to pillaging the surrounding areas.

158. For the siege, see also App. *Mith.* 34–35, 38; Strabo 9.1.20 [C 398].

159. Spathari 1980, p. 36. Other locations where conglomerate blocks of the *proteichisma* have been found in the moat are recorded in Travlos Archive, folder "Athens" B-148, 13a (Sophokleous and Athinas Streets, 1961) (Th24), and in folder "Athens" A-147, 1 (Nikis and Karayiorgi Servias Streets; Miliadis excavation, March 27, 1956) (Th40); Alexandri 1967, p. 73 (Th76); 1972, p. 65 (Th38); 1973–1974b, p. 117 (Th27).

160. Alexandri 1969, p. 41.

161. Alexandri 1972, p. 45.

162. For damage to the Long Walls and the walls of Piraeus, see Conwell 2008, pp. 194–195. For the extensive destruction to buildings in the Agora, see *Agora* XIV, pp. 23, 33, 67, 71, 80, 96, 126, 201.

163. Knigge 1991, p. 66 (phase 6 of the Sacred Gate, 1st century B.C.).

164. Thompson and Scranton 1943, p. 362.

Vitruvius also provides a brief remark concerning the wall of Athens. After accompanying Caesar's army through Asia Minor, as an engineer of military machines, he visited Athens in either 47 or 46 B.C.<sup>165</sup> In his book On Architecture (2.8.9), in a discussion on the use of sun-dried bricks as a building material, he includes the wall at Athens among his examples: et primum Athenis murum, qui spectat ad Hymettum montem et Pentelensem ("and first, the wall at Athens which looks to Mount Hymettus and Pentelicus"). <sup>166</sup> We do not know what particularly attracted Vitruvius's attention when he mentioned the preservation of the brick wall and why he referred specifically to the parts of the wall on the eastern and southeastern side of the city. His examples of sections of the fortification line include no remarks about sections that were no longer standing.

On the basis of these sources, it appears that in the middle of the 1st century B.C., four decades after Sulla's destruction of the city wall, Athens succeeded in defending itself from Calenus's attack, and that at least some sections of the fortification in sun-dried bricks might have been standing at about the same time.

It is possible, moreover, that some fortification works took place, possibly financed by Roman donations, that are not mentioned in any of our sources. <sup>167</sup> These works are likely to have been repairs, undertaken with an eye to restoring the wall to working order, and not a systematic rebuilding of the circuit. This distinction might account for why Zosimus (1.29.3) refers to the lack of fortification works following the destruction of the fortification by Sulla in 86 B.C.: Καὶ Ἀθηναῖοι μὲν τοῦ τείχους ἐπεμελοῦντο μηδεμιᾶς, ἐξότε Σύλλας τοῦτο διέφθειρεν, ἀξιωθέντος φροντίδος ("The Athenians undertook the reconstruction of their city walls, for which they had been totally unconcerned since Sulla had destroyed them.").

For the period following Sulla's invasion, the text of IG II<sup>2</sup> 1035, whose assigned dates range from 62 B.C. to the last decade of the 1st century B.C., informs us of decisions taken for the restoration of the city's buildings. 168 In respect to the city wall, the inscription includes a reference to τάφρους πάσας τὰς κύκλωι τίχ[o]v(?)ς (line 56) ("all the moats of the circuit"). Archaeological evidence has documented the disposal in the moat of a large quantity of sherds that are predominantly dated in excavation reports to the period between the 1st century B.C. and the 1st century A.D. 169 This evidence conforms with the context of IG II<sup>2</sup> 1035. In the excavation site at Syngrou 23 (Th66), for instance, a layer of debris (0.80 m thick) discovered just outside the stretch of the second construction phase of the proteichisma consisted of numerous sherds, loomweights, lamps, and other finds that were dated to the period between the 1st century B.C. and the 1st century A.D. 170 At the diateichisma, a large amount of destruction debris, 4.50 m in depth, was discovered and dated to the first half of the 1st century A.D.<sup>171</sup> Although the verb of the sentence in IG II<sup>2</sup> 1035, line 56, is missing, we might suggest that in the rebuilding program of the second half of the 1st century B.C., "all the moats of the circuit" would have needed to be covered during the process of clearing up the debris.

The state of the city walls between the Sullan sack and the construction of the Valerian Wall some three and a half centuries later is unknown due to the large gap in our testimony. Prior to the excavations of stretches of the Valerian Wall, which have confirmed their Late Roman date, it had

165. Corso 1997, p. 400. 166. See also Plin. *HN* 35.172. Corso (1997, pp. 379–380) suggests that Vitruvius refers here to the Long

167. Pompey donated 50 talents in 67 B.C. for the city's restoration; see Habicht 1997, p. 332.

168. The date of the inscription is discussed in Culley 1975 and Baldassari 1998, pp. 242–246.

169. Dating of the fill of the moat to the Roman period, up to the 2nd century A.D., is documented at Th4, Th9, Th10, Th21, Th27, Th34, Th36, Th38, Th39, Th42, Th48, Th49, Th52, Th66, Th71, Th81, and Th110.

170. Pandou 1978, p. 18.

171. Thompson and Scranton 1943, pp. 315, fig. 26, 363–365.

been proposed that a phase of reconstruction had been carried out as part of the emperor Hadrian's extensive building program.<sup>172</sup> Thompson, however, had doubted the existence of such a wall at the apogee of the *Pax Romana*.<sup>173</sup> Moreover, construction of fortification walls would have raised the suspicion of the Roman state, being viewed as a sign of rebellion against the central administration.<sup>174</sup> A Hadrianic wall is expected, after all, to be the wall of a flourishing city, not a construction incorporating an abundance of reused building materials such as characterized the Valerian fortification, to which we turn next.<sup>175</sup>

## Phase 12: Reigns of Valerian (a.d. 253-260) and Gallienus (a.d. 260-268)

The Valerian Wall was erected a few years before the invasion of the Herulians in 267 A.D., at some point during the reign of Valerian (A.D. 253–260) or Gallienus (A.D. 260–268). Fear of an invasion by the Skythians, a danger that Thessaloniki escaped in A.D. 254, was the motivation for the repairs under Valerian, according to the testimony of Zosimus (1.29.3), Syncellus (381), and Zonaras (12.23). Hence, the Later Roman fortification wall has come to be named after the emperor Valerian. A considerable body of numismatic evidence, however, has been seen to favor the dating of the building of the wall to Valerian's son, Gallienus, under whom an immense striking of coinage took place, possibly in connection with his visit to Athens in A.D. 264.<sup>176</sup> We would therefore link the striking of that coinage with the construction, and both with the threat of attack from the Skythians and the Herulians.

The western section of the Valerian Wall was provided by the *diateichisma*. Numerous repairs were carried along its course, including the establishment of a new line that replaced a stretch of the destroyed Hellenistic wall. <sup>177</sup> In the east, the Valerian Wall formed a new line of the fortification (Fig. 1, dark green line, east), stretches of which have been recovered at 17 locations (V1–V17). For the sections in the north and south, our knowledge is much more limited. Through archaeological investigation, stretches of the Valerian fortification have been located at five positions along the northern course of the Themistoklean city wall (Th1, Th4–Th6, Th27) and at six along its southern course (Th58, Th60, Th64, Th65, Th67, Th88), and another might be added to the group along the southern course (Th80), as I argue below. The southern Valerian Wall (Fig. 1, dark green line, south), a new line of defense, deviated from the course of the Themistoklean Wall at five points (V18–V22).

The Valerian Wall was constructed of two stone faces and a fill between them that extended their full height. It was founded on remains along the Themistoklean course (Th1, Th27, Th58) and of the *proteichisma* (Th4, Th60, Th88), along the line of the *proteichisma* where remains were no longer preserved (Th67), and along the line of the fortification moat, which had been filled by that time (Th65, V18). <sup>178</sup> In cases where the new wall was built upon the remains of the *proteichisma*, the earlier structure was used as a wall face, and a second wall was built parallel to and inside the *proteichisma* at a distance sufficient to ensure the necessary width of the new wall, such as at location Th4 (Fig. 34). The width of the Valerian Wall ranged from

172. Dindorf 1829, vol. 3, p. 201; Noack 1907, p. 510; Kyparissis 1924– 1925, p. 69; Judeich 1931, pp. 101, 163; Travlos 1960, p. 94.

173. Thompson 1936, p. 198; Scranton 1938, p. 536. Also doubtful of a reconstruction of the city wall by Hadrian are Burnouf (1877, p. 9); Kokkou (1970, p. 169); and Wycherley (1978, p. 23). For the lack of activity on fortifications during Roman Imperial times, see Camp 2000, pp. 50–51.

174. Gregory 1982, p. 44.

175. Kahrstedt (1950, p. 60) maintained that, far from ordering the construction of a wall, Hadrian pulled down part of the one that existed.

176. On the need for new money, particularly for works on the city wall, see *Agora* XXVI, pp. 117–118; Tselekas 2008, p. 476.

177. Thompson and Scranton 1943, pp. 369–370.

178. In the Late Roman period, the ancient fortification moat was filled in with earth and the area was used mainly for burials (at Th4, Th19, Th34, Th35, Th77, and Th88), but also for other kinds of constructions, including stone water pipes (Th42, Th68), houses (Th39), cisterns (Th60), and others not yet defined (Th10, Th76).



Figure 34. Valerian Wall at the intersection of Ayion Asomaton 22 and Dipylou Street (Th4) (at top), incorporating the *proteichisma* (at left); view from west. Photo A. M. Theocharaki

2.10 m (at Th67) to 4.50 m (at Th65). The masonry was adjusted to the existing conditions, either reusing a variety of objects, such as architectural and sculptural fragments and grave monuments, or incorporating entire sections, such as a wall of a Roman stoa (Th65) and a part of the southern wall of the Olympieion precinct (V16). Blocks were built in courses, but not according to any apparent system. Mortar of varied composition was used to bind the blocks and also the core materials.

An additional stretch might be added to the southern course of the Valerian Wall. Repairs in poros blocks at the eastern section of the excavated stretch at Th80 have been assigned to the Hellenistic fortification. <sup>179</sup> The extensive use of mortar for binding the building material has not been reported in the *Deltion* for other locations of the Hellenistic city wall and is, moreover, a typical feature of the Valerian Wall.

Some reports of excavation of the Valerian Wall do not mention the use of preexisting construction material, and remains of the Valerian Wall under the Hotel Grand Bretagne (V7) were specifically noted to lack such material. <sup>180</sup> It seems reasonable to assume that the proximity of older structures to some parts of the wall at the time of its construction suggested them as sources of abundant and homogeneous building material for the new wall. Criteria for the selection of secondhand blocks would also have included large size and durability. In the Stoa of Eumenes (PH25), for example, many courses of the stoa's original wall of soft poros stones were replaced by harder stones, presumably for the purpose of increasing the durability of the wall. <sup>181</sup>

Archaeological evidence regarding towers of the Valerian Wall is largely confined to the eastern course, where foundations of four towers have been discovered at V5, V7, V8, and V10. Most of these towers were rectangular. The four eastern towers are not consecutive, and the recorded distances between their foundations does not allow secure estimates of the original distance between them. <sup>182</sup> The report by Pernice of two towers along the southern wall that stood 42 m apart is our only evidence regarding distances

179. Lyngouri-Tolia 1992, pp. 28–

180. Scranton 1938, p. 536.

181. Korres 1980, pp. 18-19.

182. The reported distance between the foundations of towers at V5 and V7 is ca. 120 m; between those at V7 and V8, ca. 65 m; and between those at V8 and V10, ca. 200 m. The measurement of these distances was calculated on the digital map (Fig. 1).

between towers along the Athenian circuit, but that measurement cannot be taken as typical of intervals between towers of the Valerian fortification, since the towers might be Justinianic.<sup>183</sup>

One gate of the Valerian Wall has been recovered in excavations at the southern part of the Olympieion precinct (V16). A gateway was also established along the course of the *diateichisma* at the central part of the Pnyx (D1), and there was extensive remodeling of the gate that the Koile road passed through, including construction of a small tower that narrowed the gateway.<sup>184</sup>

The location of other gates of the Valerian Wall could be estimated on the basis of evidence for the road system of this period, although the evidence is slight, and also on information derived from early maps of the city wall. As an example of such an approach, we can consider the large tower (ca. 15 m in width, measured along the wall) that is depicted on the maps of Curtius and Kaupert (1878) and Judeich (1931) at the northwestern corner of Dipylou and Kalogirou Samouil Streets. This tower has been presumed to be a gate tower. 185 If we take into account, however, the fact that some of the so-called Justinianic towers were built very close to gates of the Themistoklean and Valerian walls, for example at V16, Th58, Th88, and Th109, we could suggest that the presence of a Justinianic tower at location Th4, very close to the location where the tower is shown on the early maps, might lead us to expect a Valerian gate in this area of the city.

### PHASE 13: AFTER THE HERULIAN INVASION (A.D. 267)

The raid by the Herulians in A.D. 267 devastated the city of Athens. <sup>186</sup> The city wall was rebuilt on a new circuit, the Post-Herulian Wall, which ran not only north of the Acropolis, as was long believed, but also protected its south slope (Fig. 35). <sup>187</sup> The inclusion of the Acropolis within the protection of the Post-Herulian Wall is thus archaeologically supported. Located or excavated stretches are documented at 28 sites (PH1–PH28). <sup>188</sup>

183. The foundations of a tower with dimensions of 3.00 × 3.00 m, located at the intersection of Dipylou and Leokoriou Streets (Th5), were dated by the excavator to the Late Roman period (Alexandri 1969, p. 45). Minimum dimensions for towers of this period are reported as L. 4.40 and W. 5.10 m. See Travlos 1960, p. 144, n. 6 (tower at V5, L. 5.00 × W. 6.00 m); Travlos Archive, folder "Athens" B-148, 2 (Curtain wall and tower underneath the Hotel Grande Bretagne, 1927?) (V7, L. 4.40 × W. 6.50 m); Themelis 1973–1974, p. 124 (V8, est. L. 7.50 × W. 5.10 m); Threpsiades 1971, p. 31 (V10, L. 6.00 m). It seems unlikely, moreover, that a Late Roman tower would have been constructed along the Themistoklean course at a time when the Valerian Wall ran parallel to that

course and only a few meters to its north (Th4). The construction at Th5 is more probably another sort of building somehow connected to the fortification, and not a tower.

184. Thompson and Scranton 1943, pp. 366–370.

185. The remains of the tower initially led Judeich (1905, p. 129, n. 12) to propose the existence of a gate at this location; he later noted (1931, pp. 129–130, 132) that the connection between tower and gate cannot be proven. This tower, whose remains have not been rediscovered, is associated with subsequent additions to the fortification in Schilardi 1968, p. 37.

186. Camp 2001, pp. 223–225. 187. Prior to 1980, it had been argued that the wall of this phase extended only north of the Acropolis

(Travlos, Athens, p. 161; see also Agora XXIV, p. 5). The stretch of wall that is incorporated into the north wall of the Stoa of Eumenes (PH 25), on the south slope, has now been dated by Korres (1980, pp. 18-19) to the 3rd century A.D. On the basis of that evidence, he proposes that the southern line of the Post-Herulian Wall also incorporated the south wall of the Odeion of Herodes Atticus (PH26) and the western section of the retaining wall of the cavea of the Theater of Dionysos (PH24). The proposal is supported in Castrén 1994, p. 1; Tanoulas 1997, pp. 265, 268, n. 6; Camp 2001, p. 225; and Tsoniotis 2008, p. 68.

188. The area of excavation in the Athenian Agora is here considered as a single site, designated as location PH2.

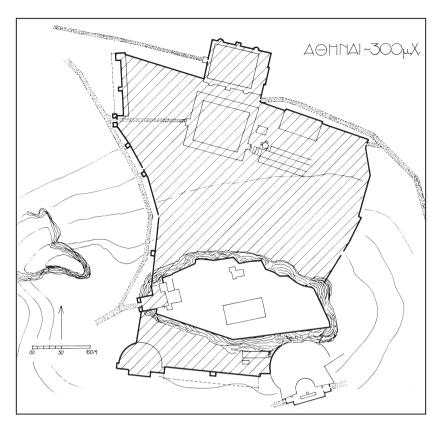


Figure 35. Post-Herulian Wall, reconstructed line, based on excavated remains. Korres 1990, p. 18; courtesy M. Korres

The two Late Roman fortification walls, the Valerian and the Post-Herulian, share some structural features. The Post-Herulian Wall was constructed of two stone faces, and the fill between the faces reached to their top. Its masonry incorporated the walls of older buildings, and the width of its preserved stretches ranges from 2.50 m (PH2) to 3.60 m (PH19).<sup>189</sup>

Construction of the Post-Herulian Wall began during the reign of Probus (A.D. 276–282), considerably later than the Herulian attack.<sup>190</sup> Two inscriptions, *IG* II<sup>2</sup> 5199 and *IG* II<sup>2</sup> 5200, have been associated with its construction and may have been incorporated into the wall in visible positions near a gate.<sup>191</sup> Because they were not discovered in situ, their value as topographical evidence has been disputed.<sup>192</sup> It is possible that the vice-consul of Achaia, Claudius Illyrius, was responsible not only for the construction of the eastern and northeastern section of the Post-Herulian Wall, but for the entire fortification project.<sup>193</sup>

# Phase 14: Early Christian Period (4TH-5TH CENTURY A.D.)

There is no archaeological evidence regarding possible damage to the Valerian fortification incurred by the invasion of the Herulians in A.D. 267, and none that can be securely linked to its repairs. Results of excavations in the Agora attest the beginnings of a recovery for the city only in the 4th century A.D., a full century after the Herulians had left.<sup>194</sup>

An inscription discovered in the Agora (SEG XXI 768) provides evidence that the philosopher Iamblichos, a benefactor of Athens who lived in Athens between a.d. 362 and 391, undertook serious repairs to curtain walls and towers: πύργους τείχεος ἕρκος ἔτευξεν Ἰάμβλιχος ὅλβον ὀπάσσας

189. For a detailed account of the results of excavation of the Post-Herulian Wall in the Agora, see *Agora* XXIV, pp. 125–141. Evidence derived from recent rescue excavations is described in Tsoniotis 2008.

190. For the dating of the wall, see *Agora* XXIV, p. 6, n. 40.

191. Sironen 1997, pp. 98-102.

192. Baldini Lippolis 1995, pp. 173–174.

193. Agora XXIV, p. 9. See also  $IG II^2 5199$ .

194. Agora XXIV, pp. 24-48.

(lines 2–3) and kratroù te[îxoç êπ]ñre πόλει (line 5) ("Iamblichos . . . built the towers, the wall's defense, giving freely from his wealth . . . [and . . . raised] a mighty [wall] for the city").  $^{195}$  It is possible that the city walls suffered damage from the strong earthquake of a.d. 365, centered at Cretan Gortyn and calculated to have measured 8.3 on the Richter scale,  $^{196}$  and that Iamblichos's effort was made in response. The generally unreliable accounts of the event in the ancient literary sources do not document these consequences of the earthquake.  $^{197}$ 

The immediate instigation for the 4th-century fortification works was presumably the impending incursion by the Visigoths under Alaric, which occurred in A.D. 396. We learn from Zosimus (5.5) about the difficulty of guarding the circuit wall with the few inhabitants who remained in the city, and although there are specific signs of damages incurred from the attack, their extent in Athens is uncertain. 198

Evidence of development in the area of the Agora in the early 5th century A.D. has led to the suggestion that the Valerian Wall still functioned effectively. <sup>199</sup> At present, however, no physical remains of fortification works dating to the 4th or 5th century A.D. have been reported from excavations. The only documented example of an earlier component of the wall that continued in use during this phase is the gate on the axis of the Koile road, along the course of the *diateichisma*, which reportedly functioned throughout the Early Christian period and possibly later. <sup>200</sup>

#### PHASE 15: JUSTINIANIC PERIOD (A.D. 527-565)

Archaeological investigation has brought to light the foundations of 26 towers dated by their excavators to the period of Justinian. Eleven of these are located along the course of the Themistoklean Wall (Th4, Th58, Th68, Th88, Th105, Th109) or along the eastern course of the Valerian Wall (V16 [4 towers], V17), and 15 along the course of the *diateichisma* (D1).<sup>201</sup> Repairs to curtain walls have been recorded at only two stretches of the Themistoklean course (Th1, Th89.1) and at one stretch of the eastern Valerian course (V15), but an extensive rebuilding program was carried out on the curtain wall atop the *diateichisma*.<sup>202</sup> Repairs at the Themistoklean Sacred Gate (Th1) are probably also to be assigned to this period.<sup>203</sup>

Also documented archaeologically is the Justinianic incorporation of the western side of the Library of Hadrian into a section of a curtain wall, which extends south of the *propylon* of the Library of Hadrian along the west facade (PH6).<sup>204</sup> Three additional sets of remains of the Post-Herulian Wall have been assigned to the Justinianic period, at PH11, PH12, and PH28.<sup>205</sup> The assumption that the Post-Herulian Wall served as the only fortification structure in the 6th century A.D. has now been invalidated on the evidence that the Valerian Wall had been drastically strengthened and rebuilt in the reign of Justinian.<sup>206</sup> Continued use of the inner circuit wall at least into late Byzantine times has also been suggested.<sup>207</sup>

The very small number of Justinianic towers whose positions along the Themistoklean course are documented does not allow calculation of the original spacing between towers along this course. In the line of the *diateichisma* along the Hill of the Muses, a new tower was inserted in the four intervals between five existing towers—a practice seen in other Justinianic fortifications—resulting in a 35–40 m distance between the towers.<sup>208</sup>

195. Raubitschek 1964 (trans. p. 64). 196. Papazachos and Papazachou 1997, p. 182.

197. On the evidence of Zosimus (4.18.2.4), the earthquake dated to A.D. 375 and Athens escaped. See also Himer. *Or.* 4.9.

198. Camp 2001, pp. 231–232.

199. Thompson 1959, pp. 65–66; Travlos, *Athens*, pp. 161–162, 483; Gregory 1982, p. 50; *Agora* XXIV, p. 58; Hattersley-Smith 1996, pp. 197–212; Camp 2001, pp. 232–233.

200. Thompson and Scranton 1943, p. 374.

201. Thompson 1936, pp. 195–196; Thompson and Scranton 1943, pp. 373–

202. Thompson and Scranton 1943, pp. 373–376.

203. Knigge 1991, p. 67.

204. Knithakis and Tigginaga 1986; Tsoniotis 2008, pp. 59–60.

205. Dontas 1969, p. 23 (PH11); Soteriou 1927, p. 30 (PH12); Tanoulas 1997, pp. 275–277 (PH28).

206. See *Agora* XXIV, pp. 58, 82–83. 207. Thompson 1959, p. 65.

208. In Thompson and Scranton 1943, pl. XIV, the four Byzantine towers are designated M6, M7, M8, and M9, and the five earlier towers are C3, C4, C5, C6, and C7.

The masonry used in the curtain walls and towers of the Early Byzantine fortification was *opus incertum*, and incorporated reused materials and preexisting constructions. Extensive Byzantine repairs to the curtain wall along the fortification line of the *diateichisma* appear to have filled the gaps in the curtains constructed of two stone faces.<sup>209</sup>

The towers of this period were built against existing stretches of the fortification wall, abutting its exterior face, but had no functional connection with it. They were nearly square, measuring 5.0–6.0 m across, and the typical width of their walls was 1.0 m. They are similar in form, masonry, and building material, and the slight variation in their dimensions was probably due to the conditions of the previous fortifications or the terrain. Their functional autonomy from the wall has been interpreted within the framework of changes to the military system in the provinces and as possibly pointing to a new, independent function for towers. They perhaps functioned as fortresses, a use mentioned by Procopius in discussion of other Byzantine fortifications.

The only ancient literary source that provides testimony about construction on the Athenian fortification during the Justinianic period is Procopius's On Buildings (Aed. 4.2.23-25). At 4.2.23, he states that Justinian reconstructed the destroyed city fortifications inside (that is, south of) Thermopylai: Καὶ πόλεις δὲ τῆς Ἑλλάδος ἁπάσας αἴπερ ἐντός εἰσι τῶν ἐν Θερμοπύλαις τειχών, έν τῷ βεβαίφ κατεστήσατο εἶναι, τοὺς περιβόλους ἀνανεωσάμενος ἄπαντας ("He also rendered secure all the cities of Greece which are inside the walls at Thermopylai, renewing their circuit-walls in every case"), and at 4.2.24, he specifically includes Athens among these cities. This testimony appears to be contradicted, however, by the same historian in his Secret History (26.33): οὐχ ἥκιστα ἐν Ἀθήναις αὐταῖς οὕτε τις ἐν δημοσίω οἰκοδομία ἀνενεώθη οὔτε ἄλλο ἀγαθὸν οἶόν τε ἦν γίνεσθαι ("and not least in Athens itself, no public building was restored nor could any other needful thing be done"), throwing some doubt on the accuracy of his other statement. In support of a Justinianic phase of construction of the Athenian city wall, it might be pointed out that in this period, there was threat of impending attacks, of the sort that were carried out by the Slavs in A.D. 582–583. 212 According to Procopius, Justinian had a particular interest in increasing the height of fortifications and strengthening them by the addition of sturdy towers.<sup>213</sup>

In the light of the testimony of Procopius, *Aed.* 4.22.23–25, the physical remains of towers on the fortification line of the Valerian Wall that are constructed of rubble and mortar have been dated in the *Deltion* to the Justinianic period. Yet, because these towers are preserved only to foundation level and are poorly documented, neither their form nor their dating is secure. Moreover, the architectural features of these towers are inconsistent with those of known Justinianic constructions.<sup>214</sup> The chronology of the architectural features is further complicated by the use of Late Roman traditions of masonry in Early Christian and Justinianic fortifications.<sup>215</sup> For these reasons, the dating of these Athenian towers to the Justinianic period on the evidence of their structural features is doubtful, and we suggest that the towers should perhaps be assigned to earlier periods, possibly to the time of the city's preparation against the attack under Alaric.<sup>216</sup>

Following the period of Justinian, as Athens became increasingly detached from its glorious past, written testimonia and archaeological data

209. Thompson and Scranton 1943, pp. 373–376.

210. Wozniak 1982; Pringle [1981] 2001, p. 234.

211. Procop. *Aed.* 2.5.8–9, 4.11.16. 212. *Agora* XXIV, pp. 93–94.

213. See, e.g., Procop. *De Bellis* 2.13.17 (Daras in Mesopotamia), *Aed*. 2.5.8 (Constantina in Mesopotamia), and *Aed*. 4.11.15 (Topeiros in Thrace). The concern for securing a greater height in fortifications is also evident at Isthmia, where construction of the fortress was preceded by raising the level of the ground with an earth fill; see *Isthmia* V, pp. 129–130. On the adoption of the practice of inserting a new tower between each pair of towers in the city of Constantina, see Procop. *Aed*. 2.5.6.

214. See Ward-Perkins 1958, p. 77; Bouras 1994, pp. 61, 63, 109.

215. Adam 2001, p. 143.

216. Thompson 1936, p. 200.

concerning the city become even more scarce, and the observation holds true especially in respect to the poorly documented Byzantine period of Athens.<sup>217</sup> Our next evidence related to the Athenian wall is provided six centuries later, in Byzantine texts of the 12th century.<sup>218</sup> The Metropolitan of Athens Michael Choniates vividly depicted the deplorable condition to which the unwalled city had been reduced at his time, and he was forced to surrender the city to the Franks without mounting any resistance.<sup>219</sup> Byzantine literature contains no further testimonia concerning the city's fortification, and the next surviving accounts come from Westerners recording their observations on visiting the city, who considered the fortification a monument that preserved significant evidence of the city's ancient past.

#### CONCLUSION

Our new reconstruction of the courses of the ancient city wall of Athens, mapped against the city's present urban plan, assembles the published results of excavations and unpublished archival material on the long history of the wall. Comparison of this reconstruction with that by Travlos has revealed some differences between the two, particularly in the northeastern and the southeastern sector of the city, and shows the potential for gaining information about unknown stretches of the wall and its gates from the older maps, especially those by Curtius and Kaupert and by Judeich. By depicting the city wall in its relation to the topography of the ancient city, the thematic map also provides a base of reference for reexamining some unresolved problems in Athenian topography.

This reconstruction has allowed the identification of four distinct fortification lines of the ancient enceinte. Construction along the course of the Themistoklean Wall and the *diateichisma* formed the main line of defense in the city's long history. Parts of these walls were repeatedly rebuilt to protect the city until as late as the Early Christian or Early Byzantine period. In the 3rd century A.D., a third fortification line was established in two parts, the eastern and the southern Valerian Wall. The fourth line of fortification, the Post-Herulian Wall, was constructed to secure the defense of a much smaller protected zone around the Acropolis after the incursion of the Herulians in A.D. 267. Finally, the reexamination of the published body of archaeological, literary, and epigraphical sources concerning the city walls of Athens is interpreted here to support a new classification of 15 construction phases of the city wall along these four courses.

Much information about the ancient Athenian wall has not been fully documented and published. Study of materials housed in the Archaeological Archive of the 3rd Ephoreia of Prehistoric and Classical Antiquities, including the original excavation notes and photographs, would provide a greater body of dated technical features relating to the history, structure, and chronology of the wall. In the meantime, the present synthesis of currently available information concerning the course and the construction phases of the wall might serve as a preliminary work upon which further research can be based, also contributing to the interpretation of physical remains of the wall that are yet to be recovered.

217. On problems related to research on Byzantine Athens, see Bouras 1981, p. 614.

218. On the possibility that βασιλικὸν τεῖχος refers to the outer circuit wall, see Granstrem, Medvedev, and Papachrissanthou 1976, with pls. I–IV. 219. Lambros 1878, p. 102; Setton [1944] 1975, pp. 206–207.

## APPENDIX 1

# STRUCTURAL CHARACTERISTICS OF THE ATHENIAN CITY WALL FROM THE MID-4TH TO THE 2ND CENTURY B.C.

The physical remains of the Athenian city wall that have been dated between the mid-4th century and the 2nd century B.C. (phases 4–10) are greater in number and, for that reason, more thoroughly published than those of other periods. The remains have been assigned a variety of dates in the published reports (see Table 2, above). I have assigned these remains a more general dating of "Hellenistic," and present an overview here of the structural characteristics of the fortification during this broader period.

#### THE CURTAIN

The Athenian city wall in the Hellenistic period is generally characterized by a base constructed of two stone faces at certain stretches of the wall, but this period also sees the introduction of a solid stone base and compartment walls. Ashlar conglomerate stones, sometimes supplemented by limestone, are set in isodomic masonry, in alternating courses of headers and stretchers of similar height. Setbacks roughly 0.10–0.15 m in width often shaped the outer surface between the blocks throughout the height of the wall, and provided stability to the structure.

The published width of the Hellenistic Athenian wall ranges from 2.00 to 4.48 m. The massive all-stone stretch revealed during the rescue excavation of the Hellenistic curtain wall in the land plot at Dragatsaniou 6 (Th32; Fig. 36) has a reported width of ca. 5 m, widening to 6.85 m at the point where it created a stairway: "The widest stretch, which survived to a height of 2.50 m and a length of 11 m, forms a stairway. It is the only stairway discovered to date in the excavated stretches of the wall." The greatest preserved height of the Hellenistic wall is 2.60 m for the walls of two stone faces (Th94) and up to 4.5 m for the all-stone walls (Th32). The widespread reuse of old building materials, including fragments of sculptures and inscriptions, is characteristic of the period; examples have been reported at Th1, Th32, Th89, Th89.1, D1, and Th109.

The technical characteristics noted above are documented at 34 excavation sites along the wall: Th1, Th5, Th8, Th9, Th12, Th16, Th29, Th32, Th50, Th57, Th58, Th60–Th62, Th64, Th66, Th67, Th71, Th77, Th80, Th81, Th83–Th86, Th88, Th89–Th89.1, Th91–Th94, D1, Th99, and Th109. Representative examples of the Hellenistic fortification have

220. Administrative Archive of the 3rd EPCA, report 130, by J. C. Threpsiades, dated October 12, 1957, folder Φ1-10A/2 (Dragatsaniou Street).



Figure 36. Hellenistic curtain wall of all-stone construction at Dragatsaniou 6 (Th32). Photo A. M. Theocharaki

been recovered at Aristeidou 14 and Pesmazoglou Street (Th29; Fig. 31), Dragatsaniou 6 (Th32; Fig. 36), Vourvachi 3 (Th61), and Erysichthonos 15 (Th109; Fig. 29).

#### Towers

Excavation at the Kerameikos has identified four towers of the Dipylon Gate and two of the Sacred Gate.<sup>221</sup> Other excavations have revealed that at least five towers of Hellenistic date were constructed along the *diateichisma* in its initial period of construction (C1, C3, C4, C5, C6), three more at the Macedonian fortress (D1, D2, T1), and eight during the period of construction of the White Poros Wall (W1, W2, W3, W4, W5, W6, W7, C7).<sup>222</sup> Rescue excavations have recovered an additional 11 towers along the course of the circuit wall that present technical features characteristic of the Hellenistic fortification: Th5, Th17, Th34, Th50, Th77, Th83, Th85, Th99–Th100, Th103, Th112 (Fig. 37), and Th115 (Fig. 38). Eight of these appear to have solid stone bases (Th17, Th34, Th50, Th83, Th85, Th99–Th100, Th112, Th115), and no previous fortifications have been documented at Th17, Th34, Th50, Th83, Th85, and Th99–Th100.

Information about an additional tower, located to the southwest of the Olympieion and standing as late as the first decade of the 20th century, has survived in the archaeological research of early scholars of Athenian topography. According to Noack, publishing in 1907, "the tower to the side of Iosiph ton Rogon Street, described by Judeich as the core of a wall, survives. It is built of long conglomerate stones, is preserved up to the seventh course, and is visible to a height of 2.70 m from the ground."<sup>223</sup> In the Travlos Archive, two photographs of a tower (Fig. 39:a, b) are preserved in a folder labeled "Tower NW of the Olympieion" (photography folder 95). The cited descriptions by Noack and Judeich are surely connected to these photographs, and in all likelihood refer to the tower marked on maps by Curtius and Kaupert and by Judeich. Judeich has proposed that the tower was located at the section of Iosiph ton Rogon Street between Vourvachi and Lempesi Streets.<sup>224</sup>

221. Knigge 1991, pp. 58, 71, figs. 54, 62.

222. See Thompson and Scranton 1943, pl. XIV. Thompson and Scranton (1943, p. 357) propose that in its original construction, of which no remains are preserved, tower C7 belonged to the *diateichisma*.

223. Noack 1907, p. 509; see also Judeich 1931, p. 134.

224. Curtius and Kaupert 1878, pl. X: "Die Umgebung der Kallirrhoë"; Judeich 1931, pl. I.



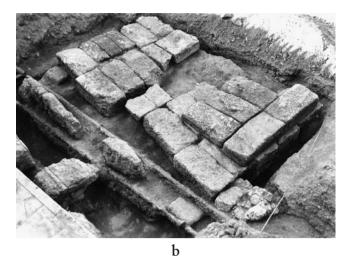


Figure 37. All-stone tower at Poulopoulou 37 (Th112): (a) overview of the excavated area, from the southwest; (b) tower, from the southeast. Travlos Archive, photography folder "Threpsiades Archive" (Petralona; Tower at Ilia Poulopoulou Street). Courtesy Archaeological Society at Athens

a

The towers of the Hellenistic fortification were of various shapes—rectangular, square, and semicircular—but most appear to have been rectangular and of medium size. The original dimensions of three are preserved, at Th34, Th83, and Th99–Th100. The width of the towers (8.50 m at Th34) is greater than their projection (6.30 m at Th83). The towers along the 3rd-century B.C. course of the *diateichisma* have larger dimensions, ranging from 6.80 to 12 m, while the dimensions of those at the Macedonian fortress are even greater, ranging from 9.50 to 14 m. The towers in the later wall of the White Poros Wall on the Pnyx, with dimensions of 8–12 m, include examples that are square (towers W1, W3, W6, W7), almost square (W5), or with narrow rectilinear sides and a circular front section (W2).<sup>225</sup>

The towers' masonry is isodomic, and the blocks were laid as headers and stretchers (Th17, Th83, Th85, Th99–Th100, Th112, and Th115). The building material is conglomerate and limestone blocks. The towers project in front of the wall line and merge organically with the whole. In accordance with the usual Hellenistic practice of connecting towers to the wall, the rear side of these towers is part of the interior face of the curtain wall and the wall-walk passes through the towers and not behind them.

At the end of the 4th century B.C., towers were added at the vulnerable bends of the curtain walls, as can be seen at Erysichthonos 20–24 (Th103), where a semicircular tower was built against the outer side of an obtuse angle (Fig. 40). The tower is built primarily of conglomerate blocks and preserves four courses of construction; the upper course has a setback of 0.15–0.20 m (Fig. 41). The exterior side of the Themistoklean Wall was

225. For these towers, see Thompson and Scranton 1943, pl. XIV.



Figure 38. Remains of a tower at Eptachalkou and Ephestion Streets (Th115). Travlos Archive, photography folder "Threpsiades Archive" (Petralona; Tower at Aphaias Street). Courtesy Archaeological Society at Athens

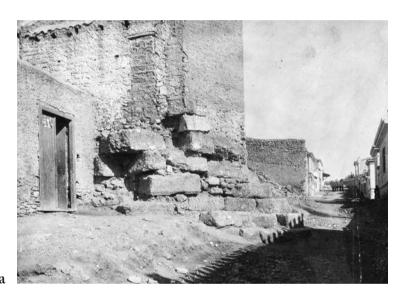
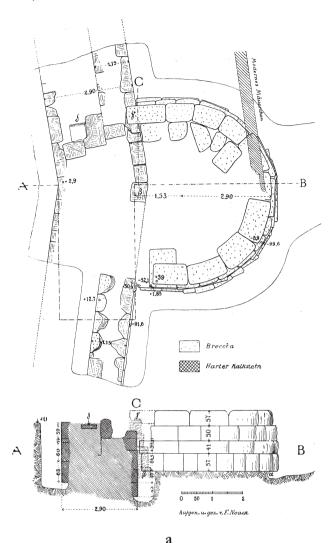




Figure 39. Remains of a tower at Iosiph ton Rogon Street, between Vourvachi and Lempesi Streets (south of Th59): (a) view from the south; (b) view from the east. Photos courtesy Deutsches Archäologisches Institut (negs. D-DAI-ATH-Athen Bauten 398, 399)

t





b

Figure 40. Themistoklean course, curtain wall, and tower at Erysichthonos 20–24 (Th103): (a) excavation plan; (b) curtain wall, viewed from the northeast. Drawing Noack 1907, p. 503, fig. 23; photo courtesy Deutsches Archäologisches Institut (neg. D-DAI-ATH-Athen Bauten 366)

destroyed above its lowest course and was covered after the construction of the tower; its preserved remains extend inside the tower and along its sides (Fig. 42). The inner side of the Themistoklean curtain wall, facing the city, continued uninterrupted; it is preserved in an excellent state to a height of at least 2 m (Fig. 40:b). The builders seem to have opted for the construction of a new tower instead of repairing the destroyed part of the city wall, and thus presumably gained better control over the area. <sup>226</sup> If one accepts Maier's restoration of  $IG II^2$  463, lines 48–49, 'Eàv δὲ πλεόνων προσδείη[ται πύργων? τὸ τεῖχος, οἰκοδομήσει] ("[He will build] additional [towers for the wall] if there is such a need"), then the text supports the addition of towers during the fortification works at the end of the 4th century B.C.

The spacing of towers during the Hellenistic period cannot be precisely calculated based on existing evidence. Archaeological testimony of the distribution of towers is preserved only along the course of the *diateichisma*. Excavations conducted there have recovered evidence that the towers built at the beginning of the 3rd century B.C. stood approximately 75–80 m apart, while a century later, during the period when the White

226. Noack 1907, pp. 501-504.



Figure 41. Hellenistic semicircular tower, Erysichthonos 20–24 (Th103); view from the west. Photo courtesy Deutsches Archäologisches Institut (neg. D-DAI-ATH-Athen Bauten 359)



Figure 42. Remains of curtain wall behind the tower at Erysichthonos 20–24 (Th103) (at right and at far left). Photo courtesy Deutsches Archäologisches Institut (neg. D-DAI-ATH-Athen Bauten 361)

Poros Wall was constructed, some of the new towers were built approximately 40 m apart.<sup>227</sup>

We can also gain some idea about the intervals between towers of the northwestern sector of the circuit wall (see Fig. 1:c). Information derived from published reports and plans of excavations along that section has enabled us to recognize an alignment among the four towers at Th99–Th100, Th103 (Fig. 41), Th107, and Th112 (Fig. 37b). Intervals between these towers are approximately 28 m (between the towers at Th99–Th100 and Th103), 56 m (between Th103 and Th107), and 37 m (between Th107 and Th112). The next tower to the north, at Th115 (Fig. 38), is 83 m from the tower at Th112, a considerably greater interval. If, however, the remains recorded in the land plot at Erysichthonos 7 (Th114) are those of a tower

227. Thompson and Scranton 1943, p. 309 (3rd-century B.c. towers), pp. 342–348 (2nd-century B.c. towers). This reduction of the intervals between towers by half over the span of a century points to a marked shift in their

defensive function. It appears that at the beginning of the 2nd century B.C. the existence of a large number of towers was of vital importance, both to reduce the unguarded length of curtain walls and to protect the heavy and bulky military equipment of the besieged; combat from within the walls had turned from defensive to offensive. This development is discussed in Lawrence 1979, pp. 385–386.

of the Hellenistic period,<sup>228</sup> its placement would have roughly bisected the interval between the towers at Th112 and Th115, resulting in intervals between these last three towers of ca. 40 m, well within the range of the 28–56 m intervals between the towers at Th99–Th100, Th103, Th107, and Th112. Given such a density, we would expect that Hellenistic towers were situated at intervals of similar distance, and are to be recovered at several other locations along the wall.

## THE PROTEICHISMA

The circuit wall of Athens was supported during this period with a second, parallel wall, the proteichisma. The usual distance between the main curtain wall and the proteichisma falls between 8 and 10 m (range: 5.10-10.20 m). Remains of the proteichisma have been excavated at 45 sites along the fortification (Fig. 1). The proteichisma was built against the inner side of the moat (Fig. 43) and also functioned as a support for the ring road that ran along the outside of the wall (Fig. 31). In one case (Th81), remains of the proteichisma have been designated as a "double" proteichisma, as it was constructed of two walls, built side by side, founded in separate trenches (Fig. 32).<sup>229</sup> It rested on bedrock, which was often cut back. The proteichisma was made entirely of stone, mainly of conglomerate blocks but including supplementary materials such as poros stones (Th19, Th26, Th27, Th44, Th70, Th76, Th84, Th110) and reused architectural fragments (Th48, Th76, Th88, Th109, Th110). Excavated remains preserve up to 13 courses and survive to a height of 5.60 m (Th4; Fig. 44), and 5.70 m (Th60), while the width of the construction varies between 1.10 (Th15, Th45) and 2.50 m (Th60). The addition of buttresses along the inner side of the proteichisma was reported at eight excavation sites (Th4, Th44, Th60, Th70, Th77, Th81, Th105 [Fig. 45], Th110). The buttresses were constructed nearly perpendicular to the inner side of the proteichisma and were positioned at unequal distances (ca. 2.00 m at Th44; 3.70-4.50 m at Th60), possibly at points where the ground was unstable or where the fortification was most vulnerable to attack.

## THE MOAT

The moat ran along the outer side of the *proteichisma* (Fig. 43). The sides of the moat's trench had often been cut back into the bedrock; its width and depth vary greatly depending on the configuration of the ground and the hardness of the rock. At excavation sites where the recovered sections of the moat preserve the original dimensions of the trench, it ranges in width from 8.00 (Th70) to 12.50 (Th81) m and in depth from 3.20 (Th71) to 11.00 m (Th34). Evidence for the moat was recovered at 54 sites along the wall (see Table 1; Fig. 1, tan shading). The discovery of so many sections strengthens the hypothesis that the moat ran along the entire circuit wall.

Study of the evidence obtained from rescue excavations suggests that the moat was filled in with earth at numerous times from the end of the 4th century B.C. and into the 1st century A.D. The fill commonly contained decomposed organic substances, building materials, and sherds. Instances of earth fills containing argil and sand, and having few building materials and sherds, are reported at a small number of sites (Th79, Th81, Th88).

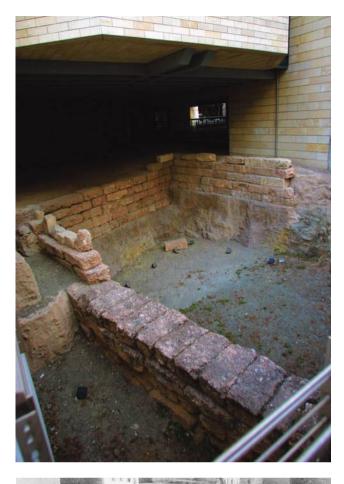
228. The precise location of the tower at Th114 is uncertain. Philios was informed in 1901 by a landlord, Ioannis Kalamis, that he had seen remains of "a pavement of poros blocks forming a floor of 3 × 4 m" when digging to lay the foundations for his house, and Philios (1903, p. 44) interpreted these remains as the foundations of a tower. My research at the Land Registry of Athens (Υποθηκοφυλάκειο Aθηνών) enabled me to identify the location of Kalamis's property at Erysichthonos 7 (Th114), ca. 100 m southwest of the small church of Ayios Athanasios Kourkouris in Theseio, the same distance from the church as Philios had recorded (p. 43).

229. Lyngouri-Tolia 1990, p. 37.

Figure 43 (right). Remains of the Hellenistic fortification at the intersection of Aiolou 82–84 and Sophokleous Street (Acharnian Gate) (Th27); view from the northwest. Proteichisma (at back right), retaining wall of an ancient street (at back left), moat and west trench of moat (center), outer retaining wall of the moat (at front). Photo A. M. Theocharaki

Figure 44 (below, left). Proteichisma at the intersection of Ayion Asomaton 22 and Dipylou Street (Th4). Photo A. M. Theocharaki

Figure 45 (below, right). Remains of the Hellenistic fortification at the intersection of Irakleidon 54 and Erysichthonos Street (Th105). Buttress (at top), perpendicular to the proteichisma (at left). Photo courtesy Deutsches Archäologisches Institut (neg. D-DAI-ATH-Athen Bauten 374)







## RETAINING WALLS OF THE MOAT

The retaining walls of the moat were strong constructions in ashlar masonry. A number of stretches have survived to a great height: an example at Th88 is 6.60 m high. Built to secure the trenches of the moat from the force exerted by the gradient of the bedrock, the retaining walls were founded on the moat's bed, either directly on the bedrock or in its cutbacks. They can be classified into those built on the outer side of the trench, which have been recovered at eight locations (Th1, Th4, Th26, Th27 [Fig. 43], Th31, Th42, Th45, Th60), and those that ran across the moat, perpendicular to the *proteichisma*. Examples of the second category are securely documented by archaeological remains at Th1, Th27, and Th44.

At other locations, there are indications that transverse retaining walls served to support points of access through the city gates: at Evripidou 90 (Th14), for example, a retaining wall was thought to offer support against the force exerted by a road that may have led to a gate. 230 Travlos had suggested a similar function for a small stretch of the moat's transverse retaining wall that he discovered on the land plot at Dragatsaniou 6 (Th32).<sup>231</sup> It has also been suggested that the trench of the moat was interrupted by retaining walls of the moat and road at Lamachou 3 (Th52) at the point where the road may have led to a gate. At the land plot at Vourvachi 5–7–9 (Th60), the perpendicular retaining wall was identified as the eastern boundary of the moat of the south section of the fortification; according to excavators, the formation of the moat at the same excavation site is believed to present similarities with that at the Kerameikos. <sup>232</sup> Finally, the function of the moat's retaining wall in the land plot at Erechtheiou 18 (Th88) remains unclear, although it is believed that its strong construction could have supported an entry point to a gate.<sup>233</sup>

## RING ROADS

Remains of the external ring road that encircled the Hellenistic wall have been recorded at 17 locations (Th1, Th4, Th8, Th9, Th26–Th28, Th34, Th48, Th60, Th66–Th68, Th77, Th81, Th105, Th109). Two to eight road surfaces have been documented at these sites, running between the circuit wall and the *proteichisma*. The road's original width ranged from 4.50 to 6.00 m, and wheel ruts spaced 1.44 m apart were reported at two sites, Th4 and Th27.<sup>234</sup> Stretches of the internal ring road, which ran on the inner side of the city wall and parallel to it, were recovered at nine locations (Th9, Th12, Th13, Th16, Th27, Th34, Th43, Th99, T101), where three to six road surfaces have survived. At the gate located at the intersection of Aiolou and Sophokleous Streets (Th27), excavations revealed a stretch of a second external ring road, measuring 4.50–5.0 m wide, beyond the moat's outer retaining wall.

230. Alexandri 1976, p. 32. 231. Travlos Archive, folder "Athens" B-148, 8 (Plateia Klauthmonos). 232. Alexandri 1972, p. 47. 233. Parlama 1990, pp. 34–35, pl. 18:b. 234. Costaki 2006, pp. 133–134.

# APPENDIX 2 SOURCE DOCUMENTATION

Collected below is the source documentation of archaeologists' initial discovery of elements of the Athenian city wall. Archival deposits of excavation records are cited when no published reports exist. Citation of more than one source at a single map code address indicates independent investigations or excavations at a site.

#### THEMISTOKLEAN COURSE

- Th1 Kerameikos: Koumanoudes 1874, pp. 9–18; von Alten 1878; Noack 1907; Gebauer 1940; Kübler 1943; Gruben 1964; Ohly 1965, pp. 360–376; Gruben 1969, pp. 34–36; Knigge 1974; Löringhoff 1974; 1995; Kuhn 1995
- Th2 Ayion Asomaton 33 and Psaromilingou 21 (land plot): Dörpfeld 1894, p. 529; Tsirigoti-Drakotou 1999
- Th3 Ayion Asomaton (road surface): Alexandri 1969, pp. 45, 48
- Th4 Ayion Asomaton 22 and Dipylou 12–14 (land plot): Tsirigoti-Drakotou 2000
- Th5 Dipylou and Leokoriou (road surface, south): Alexandri 1969, pp. 41, 45–48
- The Dipylou and Leokoriou (road surface, north): Kyparissis 1927–1928b
- Th7 Dipylou 13 (road surface): Travlos Archive, folder "Athens" B-148, 9 (Dipylou Street, March 14, 1949)
- Th8 Dipylou 11 (land plot): Alexandri 1969, pp. 41, 43–44
- Th9 Dipylou 5–7–9 (land plot): Spathari 1980
- Th10 Dipylou 3 (land plot): Spathari 1982, p. 25
- Th11 Plateia Eleutherias (Koumoundourou) 16 and Kriezi (land plot): Travlos Archive, folder "Athens" B-148, 9 (Dipylou 11, 1968, Eriai Gates?)
- Th12 Evripidou 91 and Sachtouri 10 (land plot): Alexandri 1972, pp. 58-60
- Th13 Evripidou 87 (land plot): Alexandri 1972, pp. 107-108
- Th14 Evripidou 90 (land plot): Alexandri 1976, pp. 30–32
- Th15 Sapphous 7–9 (land plot): Koumanoudes 1956
- Th16 Sapphous 5 (land plot): Alexandri 1969, pp. 70–71
- Th17 Sapphous and Menandrou (land plot): Threpsiades 1950, p. 72
- Th18 Plateia Theatrou (land plot): Koumanoudes 1956, p. 4
- Th19 Sokratous 17 (land plot): Kokkoliou 1998
- Th20 Sokratous 17 (road surface): Kokkoliou 1998, p. 70
- Th21 Sokratous 10 and Sophokleous 33 (land plot): Andreiomenou 1966
- Th22 Sophokleous 29–31 (land plot): 3rd EPCA Administrative Archive, Φ1–10A/2

- Th23 Sophokleous 23 and Athinas (road surface): Kyparissis 1927–1928a, p. 51
- Th24 Athinas 48 and Sophokleous (land plot): Travlos Archive, folder "Athens" B-148, 13a (Sophokleous and Athinas Streets, 1961)
- Th25 Aiolou 93 and Sophokleous (Mela building): Burnouf 1877, p. 128
- Th26 Aiolou 93 and Sophokleous (road surface): Platon 1963, pp. 33–34; Alexandri 1975, p. 17
- Th27 Aiolou 82–84 and Sophokleous (National Bank of Greece, Head Office): Kyparissis 1927–1928a; Alexandri 1973–1974b, pp. 115–120; Lyngouri-Tolia 1999
- Th28 Aristeidou 14 and Pesmazoglou (road surface): Lazaridi 1978; Kokkoliou 1997, p. 50
- Th29 Aristeidou 14 and Pesmazoglou (land plot): Dörpfeld 1892, pp. 449–450; Travlos 1940; Alexandri 1967, pp. 56–58
- Th30 Aristeidou 10–12 (land plot): 3rd EPCA Administrative Archive, Φ1–10A/2
- Th31 Stadiou 29 (land plot): Alexandri 1975, pp. 29-30
- Th32 Dragatsaniou 6 (land plot): Rusopulos 1872, p. 411; 3rd EPCA Administrative Archive, Φ1–10A/2
- Th33 Dragatsaniou 6 (road surface): Alexandri 1973-1974b, p. 142
- Th34-Th34.1
  - Plateia Klauthmonos: Alexandri 1973-1974b, pp. 138-141
- Th35 Paparrigopoulou 5-7 (land plot): Alexandri 1975, p. 27
- Th36 Christou Lada 5-7 (land plot): Alexandri 1968a, pp. 99-100
- Th37 Christou Lada and Anthimou Gazi (road surface): Platon 1963, p. 37; Lazaridi 1978
- Th38 Kolokotroni 3 (land plot): Alexandri 1972, p. 65, 67
- Th39 Voulis 7 (land plot): Alexandri 1972, pp. 38-43
- Th40 Karayiorgi Servias 3–5–7 and Nikis 2 (land plot): Travlos Archive, folder "Athens" A-147, 1 (Nikis and Karayiorgi Servias Streets; Miliadis excavation, March 27, 1956)
- Th41 Ermou 8 (land plot): Travlos Archive, folder "Athens" A-147, 1 (Voulis and Ermou Streets; Travlos excavation, March 4, 1961)
- Th42 Voulis 22 and Petraki (land plot): Alexandri 1967, pp. 66-70
- Th43 Mitropoleos and Pentelis and Petraki (land plot): Alexandri 1973
- Th44 Mitropoleos 15–17 (land plot): Threpsiades 1960
- Th45 Voulis and Apollonos (road surface): Alexandri 1967, pp. 66-67
- Th46 Voulis and Apollonos and Skouphou (land plot): Stavropoulos 1965, pp. 93–94
- Th47 Nikis 24 (land plot): Travlos 1960, p. 78, n. 1
- Th48 Nikis 30 (land plot): Alexandri 1976, pp. 37–38
- Th49 Nikis 27 (land plot): Alexandri 1970, pp. 77-79
- Th50 Nikis and Navarchou Nikodimou and Skouphou (road surface): Alexandri 1967, pp. 103–105
- Th51 Nikis 31-33 (land plot): Stavropoulos 1965, p. 93
- Th52 Lamachou 3 (land plot): Alexandri 1969, pp. 53-55
- Th53 Amalias and Philellinon (land plot): Travlos 1960, p. 78, n. 1
- Th54 Amalias 32-34 (road surface): Zachariadou 1998, pp. 59-61
- Th55 Vasilissis Olgas (road surface, north of the Olympieion): Tsouklidou-Penna 1983, p. 26
- Th56 West of the *propylon* of the Olympieion: Koumanoudes 1886, p. 16; Travlos 1960, p. 53
- Th57 Athanasiou Diakou 26 (land plot): Alexandri 1968a, p. 53
- Th58 Iosiph ton Rogon 8 (road surface): Philippaki 1966, pp. 65-68
- Th59 Iosiph ton Rogon 14 and Lempesi 19 (land plot): Pandou 1978, p. 17

- Th60 Vourvachi 5-7-9 (land plot): Alexandri 1972, pp. 43-47
- Th61 Vourvachi 3 (land plot): Alexandri 1969, pp. 28-31
- Th62 Vourvachi 3 (road surface): Alexandri 1967, pp. 70–71
- Th63 Vourvachi 1 (road surface): Travlos Archive, folder "Athens" 4N-155, 5 (City wall on Vourvachi Street, Miliadis and Threpsiades excavation, 1953–1955, 1958, 1966–1968, 1970, 1973; Vourvachi Street, October 21, 1954)
- Th64 Vourvachi 2 and Syngrou (road surface): Travlos Archive, folder "Athens" 4N-155, 5 (City wall on Vourvachi Street, Miliadis and Threpsiades excavation, 1953–1955, 1958, 1966–1968, 1970, 1973); Chatzipouliou 1991, p. 32
- Th65 Vourvachi 2 and Syngrou 21 (land plot): Threpsiades 1971, pp. 16–18
- Th66 Syngrou 23 (land plot): Pandou 1978
- Th67 Syngrou 25 (land plot): Alexandri 1973-1974a
- Th68 Koryzi 6 (land plot): Alexandri 1968a, pp. 67-69
- Th69 Koryzi 8 (land plot): EYIIIIO 3 (1999), p. 85
- Th70 Syngrou 29 and Negri (land plot): Platon 1963, pp. 39-40
- Th71 Syngrou 38-40 (road surface): Stavropoulos 1965, pp. 87-93
- Th72 Syngrou 33 and Donta (land plot): ArchDelt 17, B' (1961–1962), p. 26
- Th73 Donta 3 (road surface): Keramopoullos 1911, p. 257
- Th74 Syngrou 44 and Donta (land plot): Alexandri 1972, pp. 105-106
- Th75 Phalirou 8 (road surface): Alexandri 1968a, pp. 95, 98
- Th76 Phalirou 8 and Dimitrakopoulou 7 (land plot): Alexandri 1967, pp. 72–74
- Th77 Veikou 14 and Misaraliotou 2 (land plot): Alexandri 1976, pp. 27–29
- Th78 Misaraliotou 2 (road surface): Alexandri 1972, pp. 124–127
- Th79 Misaraliotou 1 (road surface, north): Threpsiades 1950, pp. 68–71
- Th80 Tsami Karatasou 5-7-9 (road surface): Lyngouri-Tolia 1992
- Th81 Tsami Karatasou 5-7 (land plot): Lyngouri-Tolia 1990, pp. 37-41
- Th82 Tsami Karatasou 10 (land plot): Travlos Archive, folder "Athens" 3N-154, 5 (Parthenonos Street and Tsami Karatasou 10)
- Th83 Parthenonos 12 (land plot): Alexandri 1967, pp. 106–108
- Th84 Parthenonos 10–12 (road surface): Alexandri 1972, pp. 77–78, 132–135
- Th85 Parthenonos 19-25 (land plot): Liagouras 1973-1974
- Th86 Erechtheiou 20 (land plot): Alexandri 1967, pp. 76–78
- Th87 Erechtheiou 20–22 (road surface): Alexandri 1973–1974b, pp. 131–132
- Th88 Erechtheiou 18 (land plot): Parlama 1990
- Th89-Th89.1
  - Erechtheiou 25 (road surface): Threpsiades 1950, p. 71; Miliadis 1955, pp. 38–42; Tsouklidou-Penna 1982, pp. 22–23
- Th90 Erechtheiou 25 (land plot): Stavropoulos 1965, pp. 84-87
- Th91 Erechtheiou 21–23 (land plot): Philippaki 1966, pp. 70–71
- Th92 Propylaion 34 (land plot): Lyngouri-Tolia 1990, pp. 29-33
- Th93 Sophroniskou 9 and Drakou 40 (land plot): Kokkoliou 1997, pp. 50-51
- Th94 Drakou and Mouson (road surface): Threpsiades 1953, p. 61; Platon 1963, p. 41; Lyngouri-Tolia 1991
- Th95 Drakou 44 (road surface): Platon 1963, p. 41
- Th96 Southwestern foot of the Hill of the Muses: Thompson and Scranton 1943, p. 330, n. 53
- Th97 Avanton 6 (land plot): 3rd EPCA Administrative Archive, citation
- Th98 Erysichthonos 31 (land plot): Noack 1907, p. 508
- Th99 Erysichthonos 29 and Nileos (land plot): Alexandri 1967, pp. 79–83
- Th100 Erysichthonos 29 and Nileos (road surface): Alexandri 1968a, pp. 57–58
- Th101 Erysichthonos 27 (land plot): Tsouklidou-Penna 1983, pp. 19–20

- Th102 Erysichthonos 25 (road surface): Travlos Archive, folder "Athens" Δ-150, 3 (Excavation at Irakleidon and Erysichthonos Streets, J. C. Threpsiades, 1953)
- Th103 Erysichthonos 20-24 (land plots): Noack 1907, pp. 501-506
- Th104 Erysichthonos 18 (road surface): Threpsiades 1953
- Th105 Irakleidon 54 and Erysichthonos (pedestrian walkway): Noack 1907, pp. 506–507; Lyngouri-Tolia 1985
- Th106 Erysichthonos 17 (road surface): Noack 1907, pp. 501, 505–506
- Th107 Erysichthonos 17 and Irakleidon 52 (land plot): Travlos, Attika, p. 36
- Th108 Irakleidon 50 (land plot): Spathari 1982
- Th109 Erysichthonos 15 (land plot): Philippaki 1966, pp. 55-57
- Th110 Erysichthonos 13 (land plot): Chatzipouliou 1991
- Th111 Poulopoulou 37 (land plot): Lyngouri-Tolia 1988
- Th112 Poulopoulou 37 (road surface): Threpsiades 1953, p. 63; Lyngouri-Tolia 1998
- Th113 Poulopoulou 39 (road surface): Lyngouri-Tolia 1998, p. 73
- Th114 Erysichthonos 7 (land plot): Philios 1903, pp. 43–45
- Th115 Eptachalkou and Ephestion (road surface): Threpsiades 1953, p. 63

## DIATEICHISMA COURSE

D1 Hills of the Muses, the Pnyx, and the Nymphs: Skias 1898, pp. 70–71; Noack 1907, p. 509; Thompson 1936, pp. 193–200; Thompson and Scranton 1943, pp. 301–383

### EASTERN VALERIAN COURSE

- V1 Old Parliament Building: Rusopulos 1864, pp. 225–226
- V2 Kolokotroni 1 (road surface): Koumanoudes 1886, p. 12
- V3 Kolokotroni 1 and Stadiou (Old Kostis Residence): Rangabé 1850, p. 121
- V4 Stadiou (road surface): Conze 1858, pp. 177–178
- V5 Stadiou and Voukourestiou and Panepistimiou and Amerikis (land plot): Kyparissis 1924–1925
- V6 Voukourestiou (road surface): Noack 1907, p. 510
- V7 Voukourestiou 6 (Hotel Grande Bretagne): Kyparissis 1924–1925, pp. 68–
- V8 Vasilissis Sophias and Panepistimiou 2 (land plot): Themelis 1973–1974
- Vasilissis Sophias (road surface, north of Parliament): Kokkoliou 1997,
   p. 49; Zachariadou 1998, pp. 53, 55
- V10 Vasilissis Sophias (pedestrian walkway, opposite Merlin Street): Threpsiades 1971, p. 31
- V11 National Garden (Metro trench): Zachariadou 1996
- V12 National Garden (west of Lykeiou Street): Chatzipouliou 1987
- V13 Irodou Attikou and Vasileos Yeoryiou II (road surface): Travlos Archive, folder "Athens" A-147, 5 (Irodou Attikou and Vasileos Yeoryiou Streets, 1959)
- V14 National Garden precinct (on the Stadium axis): Rangabé 1850, p. 116
- V15 Vasilissis Olgas (road surface, east of the Olympieion): Tsouklidou-Penna 1983, p. 26
- V16 South of the Olympieion precinct: Threpsiades and Travlos 1961–1962, pp. 12–13; *EYIIIIO* 3 (1999), pp. 85–86
- V17 Athanasiou Diakou 28-32 (land plot): Alexandri 1968a, pp. 53-54

## Southern Valerian Course

- V18 Misaraliotou 1 (road surface, south): Threpsiades 1950, pp. 64-68
- V19 Veikou 16 (land plot): Threpsiades 1950, pp. 64-65
- V20 Veikou 24–26 (land plot): Alexandri 1970, pp. 43–45
- V21 Veikou 28 (land plot): Threpsiades 1950, p. 65; Stavropoulos 1965, p. 101
- V22 Veikou 32 (land plot): Dörpfeld 1892, pp. 450–451; Pernice 1892, p. 276; Threpsiades 1950, p. 65

## Post-Herulian Course

- PH1 North Slope of the Acropolis (Klepsydra): Shear 1938, pp. 332–333
- PH2 Athenian Agora: Koumanoudes 1861, p. 18; Shear 1935, p. 329; 1938, p. 331; 1940, p. 297; Thompson 1959, pp. 95–96; 1960, pp. 350–359
- PH3 Adrianou 46 and Vrysakiou (land plot): Archive of the Central Archaeological Council (CAC), Minutes no. 16, March 6, 1962
- PH4 Krevvata 14 (property of the Museum of Greek Popular Art): Archive of the CAC, Minutes no. 22, June 13, 1995
- PH5 Library of Hadrian (west of the south wing): Knithakis, Tigginaga, and Mallouchou-Tufano 1983, p. 12; Choremi-Spetsieri 1994, pp. 19–20; 1996, pp. 25–26
- PH6 Library of Hadrian (along the west facade, south of the *propylon*): Knithakis and Tigginaga 1986
- PH7 Library of Hadrian (southern auditorium): Tsoniotis 2008, p. 61
- PH8 The Medrese: Koumanoudes 1861, p. 18; Choremi-Spetsieri 1998, p. 48
- PH9 Adrianou 72 (land plot): Archive of the CAC, Minutes no. 21, July 15, 1968
- PH10 Adrianou 74 (land plot): ArchDelt 17, B'1 (1961-1962), p. 28
- PH11 Adrianou 78 (land plot): Dontas 1969
- PH12 Adrianou 80 (land plot, Church of the Panayia Krystalliotissa): Soteriou 1927; Dontas 1969, p. 23
- PH13 Adrianou 84 and Mnisikleous (land plot): Papapostolou 1968
- PH14 Mnisikleous (road surface between Adrianou 84 and 86): Dontas 1969, p. 21
- PH15 Adrianou 86 and Mnisikleous (land plot): Dontas 1969, p. 21
- PH16 Adrianou 88B (land plot): Choremi-Spetsieri 1993
- PH17 Adrianou 88A (land plot): Choremi-Spetsieri 1993
- PH18 Adrianou 92 (land plot): Tsoniotis 2008, pp. 63-64
- PH19 Adrianou 94 (land plot): Dontas 1972
- PH20 Adrianou 96 (Old Benizelou Residence): Manolessou 1983
- PH21 Adrianou 98 and Dioyenous (land plot): Choremi-Spetsieri 1985, p. 6
- PH22 "Diogeneion Gymnasion": Koumanoudes 1861, p. 18; Choremi-Spetsieri 1985; Peppa-Papaioannou 2005; 2007
- PH23 Kyrristou and Phlessa 4 (land plot): Koumanoudes 1861, p. 18; Saraga 1991, p. 21
- PH24 Theater of Dionysos (western section of the retaining wall of the cavea): Korres 1980, p. 19
- PH25 Stoa of Eumenes (north wall): Korres 1980, pp. 18–19
- PH26 Odeion of Herodes Atticus (south wall): Korres 1980, p. 19
- PH27 Serpentzé Wall (western section, north of the Odeion of Herodes Atticus): Tanoulas 1997, pp. 254–255
- PH28 Area of the Beulé Gate: Tanoulas 1997, pp. 240-242, 265-269

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## RESEARCH ARCHIVES

- Travlos Archive, Archaeological Society at Athens
- Administrative Archive of the 3rd Ephoreia of Prehistoric and Classical Antiquities (EPCA), Athens
- Archive of the Central Archaeological Council, Ministry of Culture (CAC), Athens

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