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Pergamos

An unexplored fortified site in north-eastern Greece

Abstract

The aim of this article is to present the first results of a project investigating the hitherto unexplored site of Pergamos, located on a hill known as Koules/Alonaki just to the south of modern Moustheni in the Pieria valley. The site has a long history, with the earliest traces of human activity dating to the Late Bronze Age and the first visible architectural remains—impressive and well-preserved fortifications built in a stack-work technique—originating in the Late Archaic period. Following this, surface finds testify to activity and habitation throughout the centuries until a substantial strengthening of the defensive walls during Late Roman or medieval times, before the site was abandoned at a currently unknown point. To achieve the aim the article begins with an introduction to the site and its surrounding landscape. Following this, the results of a survey of the visible remains are presented, focusing on the fortifications and two architectural fragments. The site is then discussed within its spatial and chronological context, suggesting that Pergamos was an important settlement in the area, exhibiting traits of a *polis*, in particular during Archaic and Classical times before it fell within the sphere of influence of the Roman colony Philippi.*

Keywords: fortification walls, Northern Greece, Pergamos, Pieria valley, stack-work

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The site of Pergamos is located on a small hill known as Koules/Alonaki, just to the south of modern Moustheni in the Pieria valley, about 37 km to the west of Kavala by car.[1] The identification has been based on Herodotos (7.112), who mentions that Xerxes marched towards southern Greece through the area passing by the walls of Pergamos and Phagres.[2] Since Phagres has been securely identified at the south-western end of the Pieria valley,[3] about 15 km south-west of the site discussed here (*Fig. 1a*), and since no other imposing Archaic remains are known in the relevant area, the site at Moustheni has almost certainly been correctly identified with ancient Pergamos.[4] While heavily overgrown today, impressive remains are still visible under the thick vegetation, including about 170 m

* We are grateful to Stavroula Dadaki, director of the Ephorate of Antiquities in Kavala, for allowing us to visit the site in preparation for this article, as well as for her kind permission to publish the plan of the visible remains. We also owe a great deal of gratitude to Enboms donationsfond, Herbert & Karin Jacobssons stiftelse, and Helge Ax:son Johnsons stiftelse for providing funding for the project; without them this article could not have been produced. Finally, we are also grateful to Jenny Wallensten, director of the Swedish Institute at Athens for her support and encouragement during the initiation of this study.

[1] Located at 40°51'20.05"N, 24° 6'48.76"E.

[2] "Passing through the land aforesaid Xerxes next passed the fortresses of the Pierians, one called Phagres and the other Pergamus. By this way he marched under their very walls, keeping on his right the great and high Pangaean range, wherein the Pierians and Odomanti and the Satrae in especial have mines of gold and silver." Godley 1922.

[3] At the modern Kanoni-Hill, in the village Orphani, the ancient city of Phagres has been identified based primarily on numismatic evidence; see Loukopoulou 2004, 865; Pikoulas 2001, 105–106, 174–176; Liampi 1991. M. Nikolaidou-Patera has excavated the site of Phagres and has presented a number of excavation reports in the conference series of the Archaeology of Macedonia and Thrace (*AEMTh*) in Thessaloniki; see, for example, Nikolaidou-Patera 1997a.

[4] The site was first identified as Pergamos by I. Afthonidis (1892). See also, Zannis 2014, 182–183, 256; Loukopoulou 2004, 857; Pikoulas 2001, 64–65, 176–179; Nikolaidou-Patera 1997b, 313. This identification has, however, been occasionally disputed in the past, with alternative suggestions for the location of Pergamos; see, for example, Papazoi 1988, 22; Samsaris 1976, 162; Theocharis 1954. De-

Fig. 1a. Sites in the area of Pergamos mentioned in this paper. Map by Patrik Klingborg.

of defensive walls on the south side, reaching a height of at least 3.5 m above modern ground level.

Since no archaeological work has been hitherto conducted at the site, this article has two principal aims.[5] The first is to provide an account of the current state of the site based on a careful semi-structured survey conducted in 2023 and focusing on locating visible walls, both to make the surviving material available, and to ensure documentation of the remains before potential excavations and restorations. Secondly, the article will discuss the place and role of Pergamos within the Pieria valley and its larger geographical and historical context. To this end, this paper begins with an introduction to the site and its surrounding landscape, followed by a report on the initial results, and finally the place of Pergamos in its geographic and historical context.

The surrounding landscape

The Pieria valley, in which Pergamos is found, is located between two mountain ranges, Pangaion to the north and Symbolon to the south (*Fig. 1a*). Along the bottom of the valley, a river nowadays known as Marmaras flows, quite small and drained today but presumably larger in antiquity.[6] At the north-east end, the valley is delimited from the marshes of Philippi by a narrow pass, while at the south-west

spite those objections, we believe that the identification is sufficiently secure to use. See also Lazaridis 1978, 281–282.

[5] The site is, however, mentioned briefly by a number of scholars, some of whom visited it without conducting work there, see Malamidou 2021, 50–52; Ouellet 2024, 265, 270–271; 2013, 63–64, pl. 9.2–4; Loukopoulou 2004, 857; Pikoulas 2001, 64–65, 176–179, figs 10–14, 30, 32; 1997, 360–361; Samsaris 1976, 135, 161–162.

[6] A later bridge crossed the river south of Moustheni, the remains of which are preserved for more than 120 m, suggesting both that the

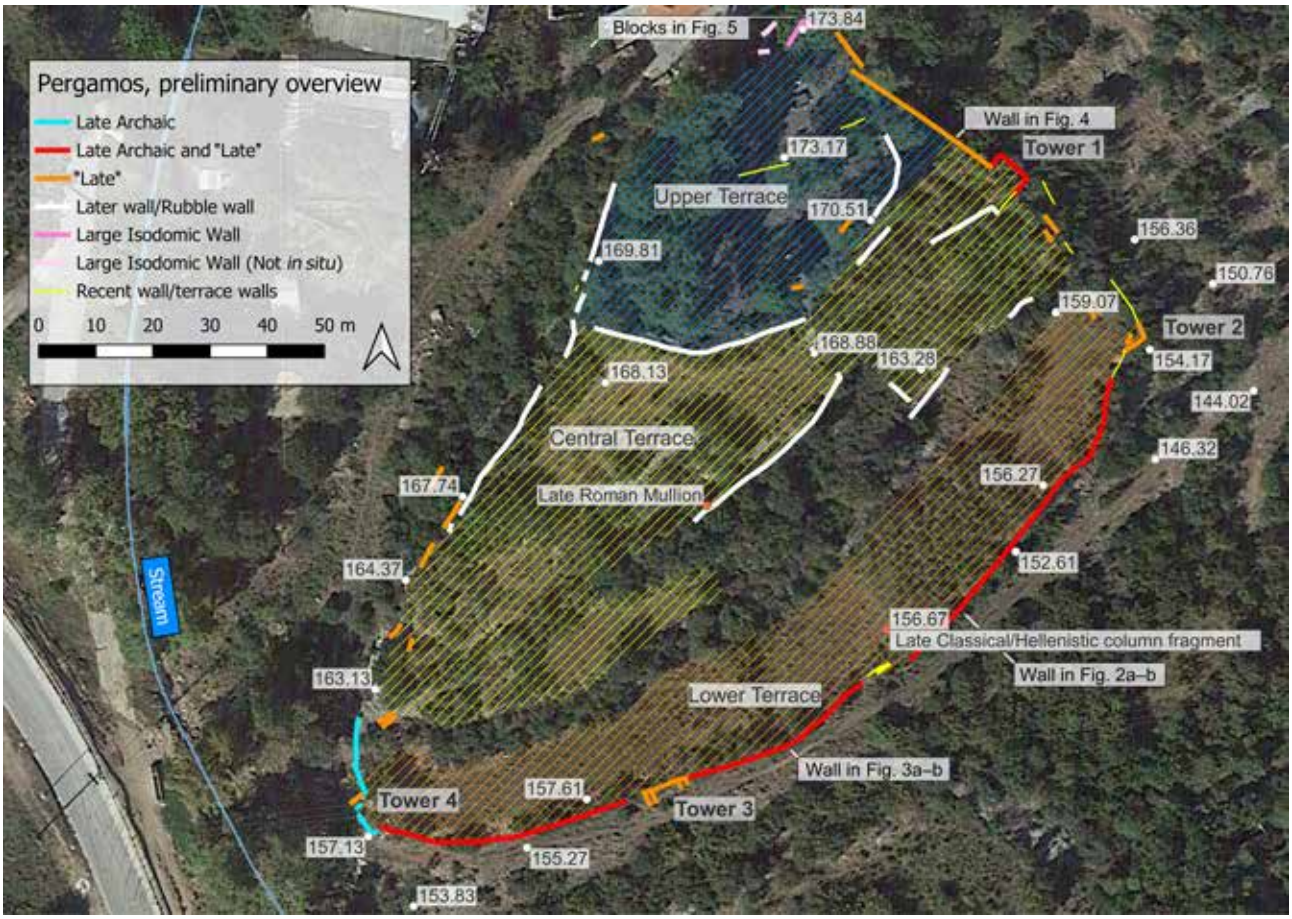

Fig. 1b. Plan of Pergamos, showing the various phases and wall styles. Plan by Patrik Klingborg.

it almost reaches the Strymon river delta; in modern terms, the valley stretches between the town of Eleutheroupolis[7] at the north-east and the village Galipsos (north of Phagres and distinct from the ancient site of Galipsos) at the south-west, on a north-east–south-west, 30-km-long axis, and 3.5 km wide north–south, with an area greater than 100 km^2 (*Fig. 1a*). The valley's primary access to the sea was via Phagres, which was one of its most important cities, located near its south-western end.[8] Overshadowed by its famous neighbours, Amphipolis and Philippi, the settlements in the Pieria valley are only sporadically mentioned in ancient sources, and they have attracted nowhere near the same attention of antiquarian travellers or even archaeologists and researchers over the course of time.[9]

Pergamos at Koules/Alonaki

The hill of Koules/Alonaki is located on the south slope of Mt Pangaion, overlooking the Pieria valley from the north at an elevation of 156–174 masl, with a circumference of about 420 m (*Fig. 1b–c*). Just below the site and 30 m to the west, a productive, albeit seasonal, stream is located, ultimately draining in the Marmaras river along with numerous other small watercourses.

The original shape of the hill, prior to human activity, is difficult to discern today due to extensive transformation of the landscape, especially on the south side where the addition of

river was considerably larger in the past, and that the area probably was flooded periodically (see *ArchDelt* 53 B2, 733).

[7] Corresponding to the westernmost suggested location for Daton (see below, pp. 19–20).

[8] But see also Zannis 2014, 363.

[9] Pikoulas 2001, 19–23.

Fig. 1c. Aerial photograph of Pergamos from the 1980s, with permission from the Ephorate.

the fortification walls and terraces in antiquity raised the elevation considerably. The sporadic presence of exposed limestone bedrock,[10] however, suggests that the site is located on, and expanded out from, one or more natural outcrops; on the west side, the elevation difference between the bedrock outside and inside the wall is at least 3 m. Similarly, the lowest visible part of outer face of the south walls sits at about 153 masl, while the soil level on the inside of the same wall is found at *c.* 157 masl. From here the elevation climbs towards the north-east through a series of terraces and slopes to 174 masl at the highest point, where the hill is marginally higher than the terrain towards the north. Furthermore, about 60 m away in this direction, just across the modern road, the steep slope up the Tsali mountain outcrop begins. Overall, the effect of the location is an imposing position towards the south, while the north-east part of the site sits only slightly above the terrain to the north.

The significant elevation differences within the site itself, almost 20 m from south to north, create three discrete areas. These can be considered as a lower terrace, occupying roughly the south and south-east half of the site, a central terrace, and an upper terrace in the north. These terraces largely correspond to agricultural fields that were located at the site in modern times (*Fig. 1c*). The lower, south, terrace comprises a 25-m-wide area at about 157 masl, stretching from the south-west part of the site all the way to the east, bounded by the south wall. This area seems to be largely formed by fills or eroded soil raising the elevation behind the south wall. North of the south terrace the terrain rises at a steep angle until it reaces the level of about 168 masl where a central terrace area is formed. The upper terrace, an elevated inner part of the site measuring 60 × 40 m at just over 173 masl, is delimited from the central terrace by an encircling later (presumably modern) wall.

A fortified site in the heart of the Pieria valley

The primary object of the work in 2023 was to map visible remains and to conduct preliminary documentation of the walls. Based on these observations, the fortifications show different states of preservation in different areas, with walls constructed in a variety of techniques and dating to several periods (*Fig. 1b*). This section begins with the description of the techniques used in the two main phases of the fortification walls, followed by an account of the current state of the walls, and finally a description of loose architectural and surface finds.

THE LATE ARCHAIC AND LATE WALLS

The most impressive visible remains at Pergamos are the Late Archaic walls (*Fig. 2a–b*), preserved in places up to a height of 3.5 m, and constructed in the style known as "ladder-pattern" or "stack-work", whereby the exterior face is built up from thin stacked slabs held in place by large, irregular blocks. At Perga-

[10] Pikoulas 2001, 65.

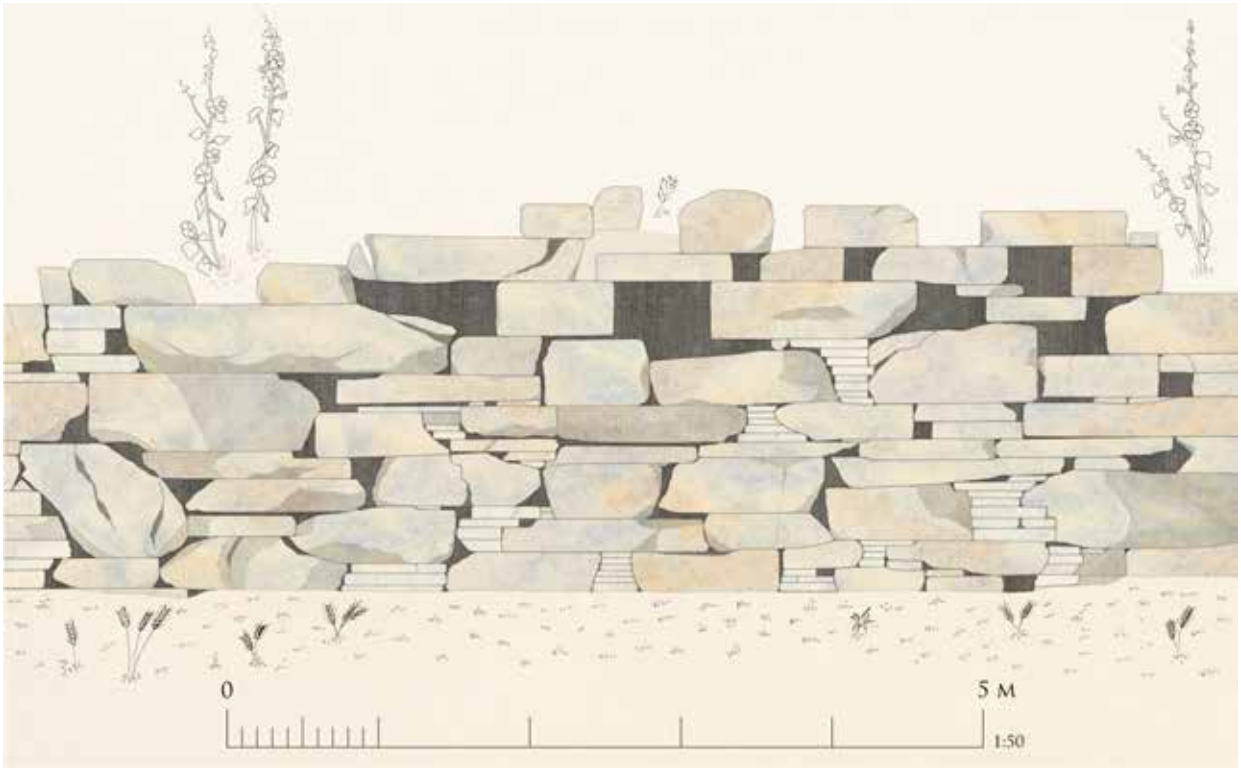

Fig. 2a–b. Stack-work wall, outer face on the south side of the site. Note that many of the thin stacked slabs have been robbed out. Photograph (2a) by Patrik Klingborg, drawing (2b) by Jesper Blid.

mos, some of these blocks exceed 1.5 × 0.5 m in size (*Fig. 3a–b*),[11] and the surface of the blocks often has strains of a strong reddish hue from iron oxide. The core of the walls consists of

[11] For discussions and illustrations of the walls, see Ouellet 2024, figs 63–64; 2013, 63–64, pl. 9.2–4; Pikoulas 2001, 64–65, figs 10–14. The Ephorate of Antiquities in Kavala also possesses at least three old aerial photographs showing the site before the heavy vegetation covered large parts of the area (see *Fig. 1c* for one of the images). On the "ladder-pattern" or "stack-work" technique, see Ouellet 2016, 536, 541–543; Hellmann 2002, 115, fig. 142; categorized as an irregular trapezoidal by Scranton 1941, 80; called *Aigyptiazon* (Αιγυπτιάζον) by Sismanidis 1995, 451.

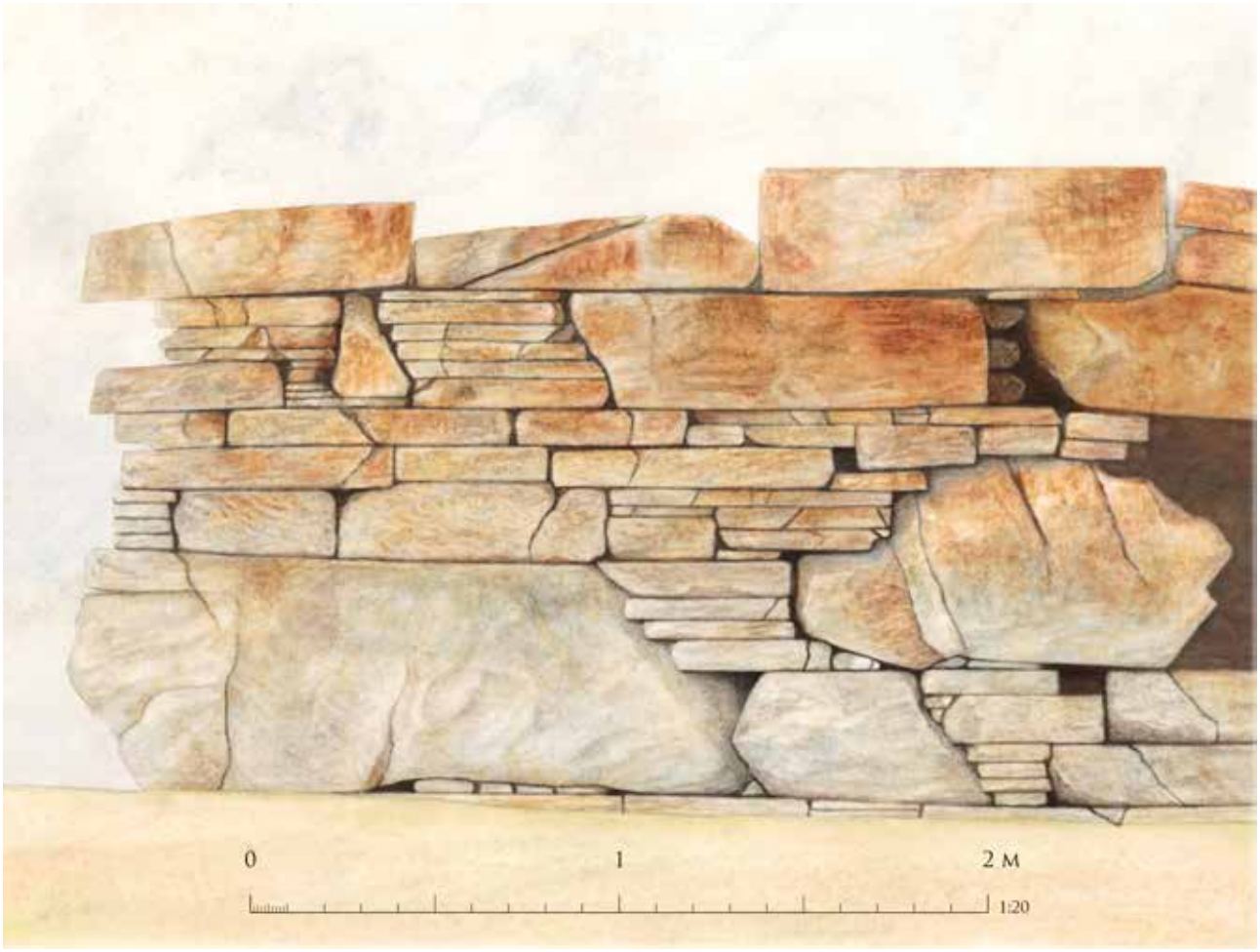

Fig. 3a–b. Detail of wall construction, outer face on south side of the site. Photograph (3a) by Patrik Klingborg, drawing (3b) by Jesper Blid.

Fig. 4. Late wall, outer face, in mortared rubble masonry. Photograph by Patrik Klingborg.

piled, unhewn blocks of varying dimensions. The inner faces of the walls are currently obscured by soil and vegetation.

A close stylistic parallel to the fortifications at Pergamos can be found in the early phase of the city walls of Stageira, dated around 500 BC, and the same construction technique has also been identified at other sites in the broader area, such as Torone and Thasos.[12] Herodotos (7.112) provides a fairly secure *terminus ante quem* at 480 BC by mentioning the strong walls of Pergamos in association with Xerxes' march towards southern Greece. Together, the available evidence strongly suggests a Late Archaic date for the fortifications.[13]

It has long been suggested that this technique originated from the Cycladic islands (and/or Attica) and then spread to their Greek colonies in Thrace and the bordering areas;[14] the presence of the same style at Pergamos, so far not identified as a Greek colony, may suggest that the technique was adopted by indigenous settlements as well. Furthermore, Keven Ouellet has argued that the technique was initially invented as a way to save material; in other words, it was the result of a purely economic and utilitarian consideration, which, however, in northern Greece developed into a conscious choice of style, aimed at making an aesthetic impression.[15] The systematic way in which the blocks of the exterior face of the circuit walls at Pergamos are arranged, distinct from the coarser core of the walls, indeed emphasizes the aesthetic rationale of stack-work masonry. On the other hand, the lack of different coloured stones, as seen in the walls of Stageira, Torone, Thasos, Singos and Apollonia, suggests that at Pergamos the technique was still primarily chosen based on utilitarian grounds.[16]

The second phase, here coined Late, is visible in the extensive reconstruction and strengthening of the city's fortifications during Late Antiquity, or even as late as the Middle Ages.[17] At this point, the Archaic walls were restored and their height increased by means of two techniques: mortared rubble masonry (*Fig. 4*), and more carefully built sections fashioned out of rectangular blocks (also using mortar). There is no apparent use of spolia in the secondary building phase, and there are probably several subphases. Moreover, at this point, not only the circuit wall was strengthened, but the towers restored and at least one new tower (Tower 3, but probably also Tower 2) may have been added as no Late Archaic remains are visible, although the area is largely covered by soil.

[12] For the walls of Stageira and their dating, see Sismanidis 1997, 279–280; Ouellet 2016, 543; Cambitoglou 2002, 28; Camp 2000, 44. See also Ouellet 2019.

[13] Overall, the stack-work technique was used between the early 6th century and *c.* 350 BC (Ouellet 2024, 264; 2016, 541–542).

[14] Ouellet 2016, 535; Zannis 2014, 256; Cambitoglou 2002, 28–31; Camp 2000, 44; Pouilloux 1954, pls XXI:2, XL:3–4, XLI:1 (Ramnous), XXV:4 (Kerameikos), XXVI:2 (Thorikos).

[15] Ouellet 2016, 541; Cambitoglou 2002, 31; Camp 2000, 44; see also, Scranton 1941, 80.

[16] We would like to thank Keven Ouellet for his feedback on this section and for providing us with a draft of his then forthcoming book; see Ouellet 2024.

[17] A.G. Zannis (2014, 256) suggests a probable dating of these Late walls in the 4th–6th centuries AD.

Fig. 5. Structure built with isodomic block courses. Photograph by Patrik Klingborg.

The date of the secondary phase of the city walls cannot be determined more precisely based on the current state of evidence, because of the lack of excavations and detailed analysis of the masonry. The use of mortar and square putlog holes in the walls (for wooden scaffolds) finds close parallels among Roman walls, especially from Late Antiquity, although the putlog technique continued to be used throughout the Middle Ages.[18]

THE REMAINS OF THE WALLS

Having described the two main building techniques, we can now turn to what can be seen of the walls at the site today. Starting with the east side, close to the highest point of the Koules/Alonaki hill, there are remains of walls built in the Late style, ranging from just barely visible in the north to a height of about 2 m (*Figs 1b* and *4*), where they meet a Late Archaic bastion or tower (Tower 1). This tower is constructed in the stack-work technique, with later walls on top, and measures at least 6 × 3 m. Following this, towards the south, there are sporadic remains of later walls and probably terraces, but the current state of preservation and visibility does not make it possible to plot any continuous stretches. The fortifications on the east side are terminated by a Late tower (Tower 2) at the south end.

The southern side of the fortifications is considerably better preserved, running almost uninterrupted for *c.* 170 m (*Figs 1b* and *2a–b*). Here, several phases can be observed, largely formed by the impressive Late Archaic phase, on top of which Late walls are preserved in many places. In some short stretches, even later terrace walls seem to have been built in order to support the terrain behind the walls, in particular near Tower 2. The, presumably Late, Tower 3 is located on the west half of the southern walls, and the south fortifications end at an Archaic tower or bastion (Tower 4) at the westernmost part of the site.

Tower 4 on the west side of the site is poorly preserved, but the masonry of large blocks suggests that it originated in the Late Archaic period, along with the better-preserved south walls. This impression is strengthened by the continuation of stack-work walls for about 15 m towards the north. The tower or bastion was strengthened, and possibly expanded, in the Late phase, as shown by small remains of later walls.

The fortifications on the heavily overgrown north side are considerably less well preserved, or at least not visible, with no secure traces of an Archaic phase. Instead, we find here sporadic traces of walls made in the Late mortared rubble masonry style, observed on at least two levels, one at about midway up the steep slope, and one along the top of the hill towards the west. The most substantial remains of these Late walls on the north side can be found close to the east end of the site, where at least one larger block has been incorporated, possibly suggesting that it rests on an earlier phase. The orientation of this wall is also notable, leading across the modern dirt road if continuing, suggesting that the fortifications did not neces-

[18] At Butrint (Hodges *et al.* 2004), for example, the superficially similar construction technique of the "Medieval phase 1" circuit walls is roughly dated from "early [Middle Ages] to mid-13th century", 126–137, fig. 8.12–14.

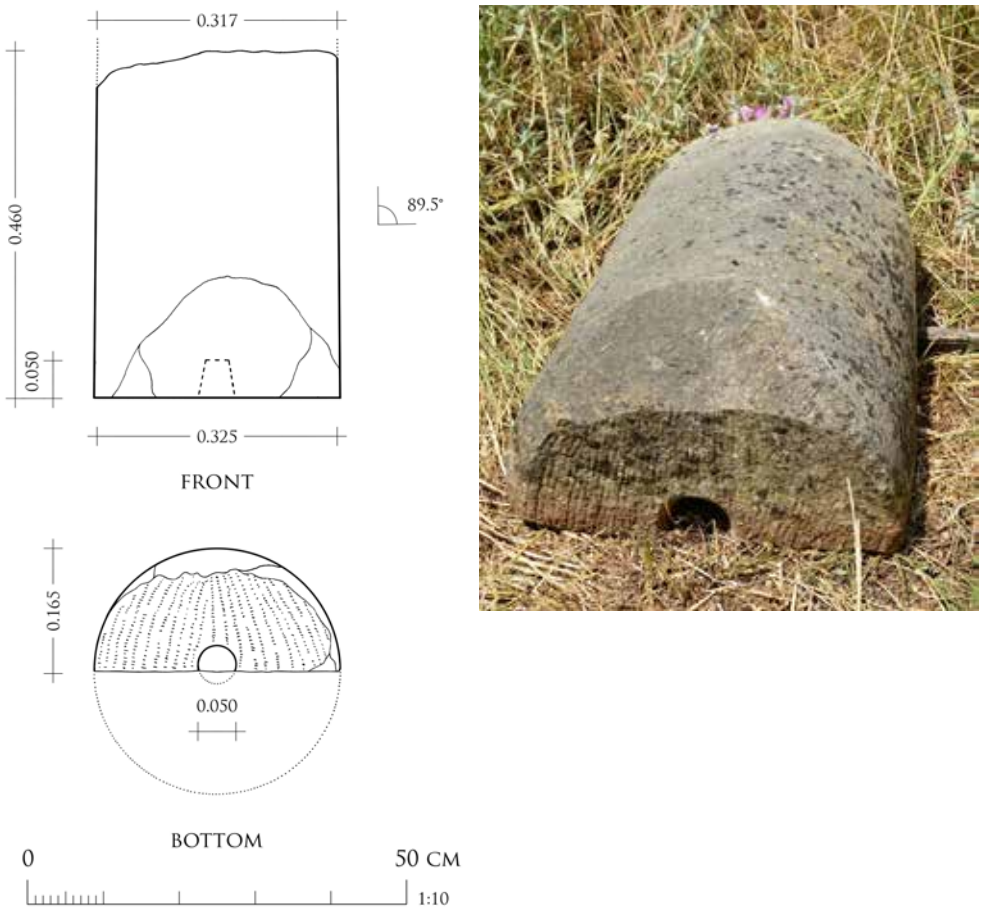

Fig. 6a–b. Column fragment. Photograph (6a) and drawing (6b) by Jesper Blid.

sarily follow the current shape of the hill everywhere. There is also a fairly wide wall without mortar, in a very poor state of preservation, running along the top of the site. It is currently unclear if this follows earlier stretches of the fortifications. Finally, at the very north corner of the site, there is a, probably Archaic, structure built with isodomic block courses, perhaps a tower or bastion (*Fig. 5*).[19]

In addition to the currently visible remains, Yannis Pikoulas identified two entrances through the fortifications, one in the north-east and the other in the south-west, but his observations cannot be confirmed under the current circumstances.[20] Moreover, within the site there are a number of later walls of indeterminate date; most of them are almost certainly fairly modern and presumably the result of farmers cleaning the fields and terracing the land. This is also true for the several large areas covered by massive piles of stone, suggesting that the site was once heavily built up.

Overall, the material shows that Pergamos was a heavily fortified site during several periods of antiquity, probably with a large number of structures within the circuit. However, it is also clear that further, and much more detailed, studies are needed in order to elucidate the development and the various phases of these walls.

SURFACE FINDS

Two architectural members were identified at the site. The first of these is an unfluted column drum of marble (preserved height 0.460 m), found on the lower terrace (*Fig. 6a–b*). The lower diameter, 0.325 m, falls within the accepted range of one Doric foot, which suggests that it was a bottom drum. The almost vertical sides are also consistent with a bottom drum, as upper drums normally display more pronounced tapering.[21] The lower end of the drum is worked with a pointed chisel and lacks anathyrosis. At the centre, a round hole (diameter of 0.050 m) with a conical section would have accom-

[19] Presumably identical with the north–north-east gate proposed by Pikoulas (2001, 65).

[20] Pikoulas 2001, 65, 177–178.

[21] Cf. Pakkanen 2009, 176–177, fig. 8.

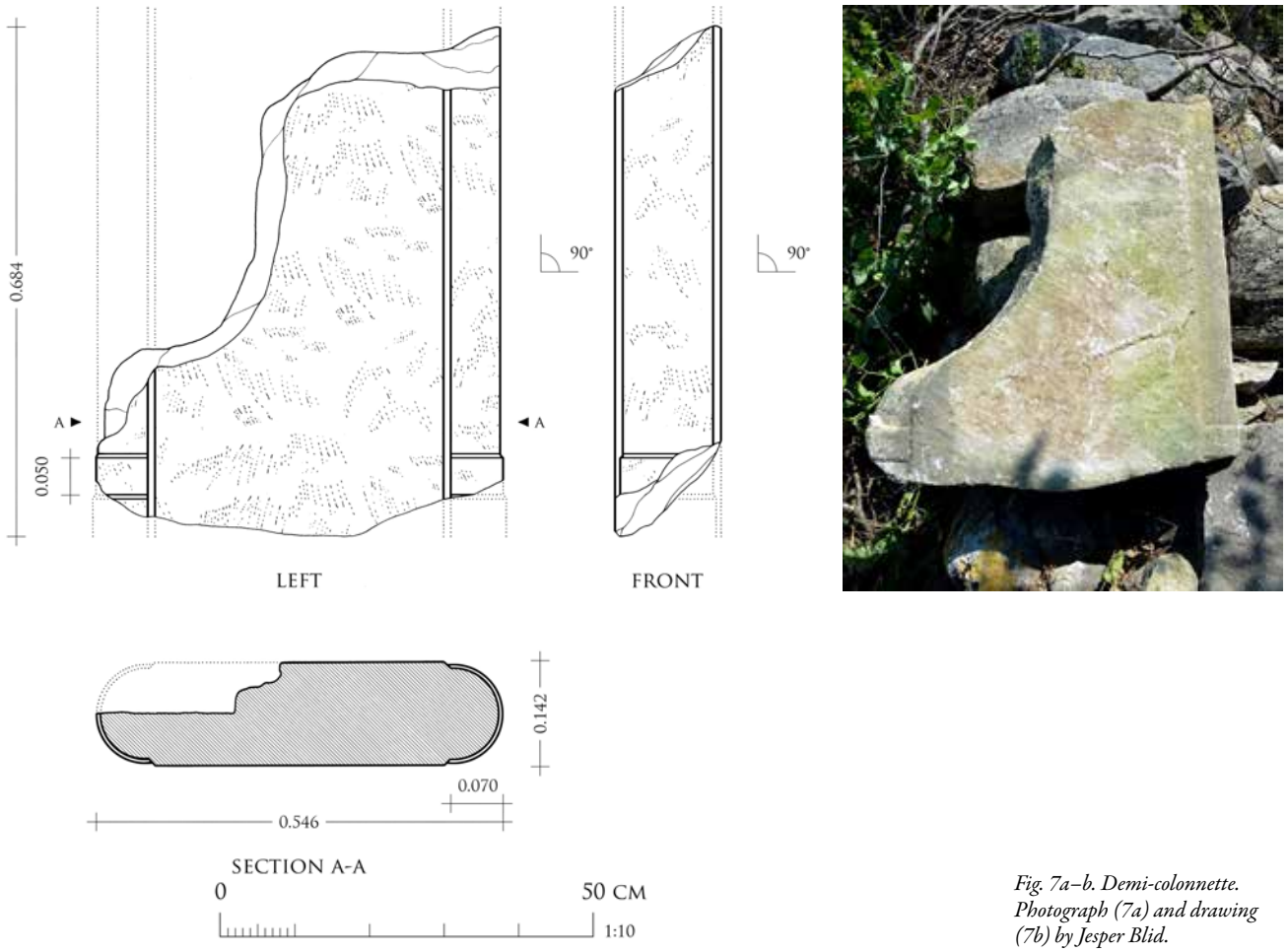

Fig. 7a–b. Demi-colonnette. Photograph (7a) and drawing (7b) by Jesper Blid.

modated a dowel. The method of fixing columns in the stylobate by means of dowels appears in Mainland Greece and Asia Minor from the 4th century BC onwards,[22] which provides us with a rough *terminus post quem*. The absence of an (Ionic-style) apophyge moulding indicates that our drum belongs to a Doric column.[23] As this architectural order, and presumably also the use of the Doric foot, had become less frequent by the Roman Imperial period, the column drum most likely dates to the late Classical to Hellenistic era. The column's relatively small dimensions might point to a domestic context, perhaps the peristyle of a modest house.

The second find is a demi-colonnette, probably a mullion, of white marble which points to Late Roman activity at the site (*Fig. 7a–b*).[24] While the top is diagonally broken off, the horizontal, band moulding(s) at the bottom of the demi-colonnette is preserved on both front and back (height 0.050 m). The side panels are plain and none of the vertical faces taper. The colonnette has been worked on all sides with a toothed chisel. The base(s) of the demi-colonnette, which is only marginally preserved at the back, is cut in the same block as its shaft(s). The minimum thickness of the wall in which the demi-colonnette was placed was 0.55 m. The available comparisons point to a 5th–6th century AD date; the original context was probably a church.

[22] J.J. Coulton (1968, 179 with n. 168) lists some 4th-century examples from Mainland Greece. R. Martin (1959, 14, 20, fig. 4, pls 5:3, 7:3) has demonstrated the same system of dowelling at the agora of Thasos.

[23] As noted by J.J. Coulton (1976, 112), it becomes increasingly popular during the Hellenistic period to leave bottom drums of Doric columns unfluted, which could explain the lack of flutes on our drum.

[24] A similar demi-colonette has been excavated in Basilica A (mid-6th century AD) at nearby Amphipolis (Zikos 1989, 7–11, fig. 4). See also a similar member from the Saraçhane excavations in Istanbul (Harrison 1986, 152 [cat. no. iv], pl. 185).

Smaller surface finds were not recorded in detail, but they clearly testify to activity at the site over the centuries. The area is covered with ceramic fragments, both from tiles and vessels of many types, as well as a lone loom weight, altogether hinting at the richness of the material. Furthermore, a great amount of slag can be detected all over Pergamos, both inside and outside the walls, indicating that metal extraction was probably a primary source of wealth for the city and the region.

Pergamos in ancient sources and modern scholarship

In the wider area encompassing Pergamos, the fertility of the land, although not directly attested archaeologically, largely due to a significant increase in the ground level since antiquity,[25] seems to have attracted inhabitants from a very early date.[26] The current arable area between Mt Pangaion and Mt Symbolon encompasses about 65 km^2, a rather large area excellently suited for farming due to its good access to water provided, and drained by, the Marmaras river.

Human habitation in the valley is known from the Late Neolithic period onwards, in particular in the west part of the Pieria valley.[27] The closest site to Pergamos from this time, a settlement occupying a large flat area, presumably an eroded mound, has been found at a site known as Agia Paraskevi about a kilometre to the south from the Koules/Alonaki hill.[28] Across the valley, at a higher altitude, caves were also inhabited in the Neolithic period.[29] Towards the end of the Late Neolithic period, habitation in Agia Paraskevi, along with several other sites at the bottom of the valley, comes to an end;[30] rather it seems that the wider area was invigorated again only by the Late Bronze Age (second half of the 2nd millennium BC).[31] Overall, high hills with steep slopes were preferred for settlements during this period.[32] According to Dimitra Malamidou, this is when we first have evidence for human occupation at the hill of Koules/Alonaki, and Yannis Pikoulas reports plentiful Late Bronze Age sherds at the site.[33] Malamidou also states that the hill was further inhabited during the Early Iron Age (1100–700 BC), although it is not certain that there is continuity between the periods.[34]

In early historical times, the Pieria valley was inhabited by the Thracian Pieres. According to the ancient sources,[35] they had first settled in Pieria ("The rich land" according to Nicholas G.L. Hammond)[36] at the foot of Mt Olympos—from which they took their name—before the time of the Trojan War, perhaps around 1300 BC. Later, when the Macedonians took over Pieria in the course of the 7th–6th centuries BC making it the core of their kingdom, the Pieres migrated to the valley of the Marmaras river, east of river Strymon and south of Pangaion, giving to this region their name.[37]

In addition to agriculture, the Pieres seemingly had access to a wide range of natural resources, a fact that could have, in the first place, played a significant role in the choice of this strip of land as a new home after their migration. Apart from being able to easily tap into long-distance trade along the important road in the valley at least from the 5th century BC, as well as getting in contact with the travellers that came with it, the valley was rich in wood and metal.

The most famous natural resources in the area are the precious metals, with mining of silver and gold being attested through abundant evidence in the broader area of Mt Pangaion.[38] Although the dating of this activity is highly uncertain, the extraction seems to have begun in the Late Neolithic period or Early Bronze Age, with a peak in the Late Bronze Age and Early Iron Age. Later, the activity was again intensified in Archaic–Hellenistic times.[39]

The control over the mining areas proved a constant cause for rivalry between the local Thracians—the Pieres among them, who, according to Herodotos (7.112) were exploiting the metal mines on Pangaion—, the Greek colonists, among them the Athenians, and later the Macedonians.[40] In this context, it is especially important that in the mid-6th century BC Peisistratos gained access and control over the gold and silver mines of Mt Pangaion, presumably on the side towards the river Strymon.[41] Although it cannot be certain if and how this

[25] Malamidou 2021, 45.
[26] Nikolaidou-Patera 1997b, 310.
[27] Malamidou 2021, 46.
[28] Malamidou 2021, 48. D. Malamidou suggests that there may exist earlier remains under the currently known layers; the site is also locally known as Keramidario.
[29] Known as the Spilaio Symvolou (Σπήλαιο Συμβόλου; Malamidou 2021, 48); the site may have survived into the Bronze Age.
[30] Malamidou 2021, 49.
[31] Malamidou 2021, 50.
[32] Malamidou 2021, 50.
[33] Malamidou 2021, 51; Pikoulas 2001, 65.
[34] Malamidou 2021, 51.
[35] Hdt. 7.112, 185; Thuc. 2.99.3; Strabo 9.2.25 (410).
[36] Hammond 1972, 416.
[37] Zannis 2014, 313–316; Mari 2011, 81–83; Nikolaidou-Patera 1997b, 309–310; Hammond 1972, 416–418.
[38] Hdt. 5.17.2 (Lake Prasias), 6.46.3 (Scapte Hyle, opposite Thasos), 7.112 (Pangaion), 9.75 (Daton/Krenides). See, also Zannis 2014, 194–203; Unger & Schütz 1982; Unger 1987.
[39] Unger 1987, 87.
[40] Picard 2006.
[41] Peisistratos and the mines in Pangaion: Hdt. 1.64; Arist. *Ath. Pol.* 15.2. For the activity of the Pieres and Peisistratos in the south side of Mt Pangaion, see Zannis 2014, 215–216, 326–330.

affected Pergamos, it is most likely that the whole area felt the presence of the Athenian tyrant in one way or another.

The control of the mines was presumably among the motivations for the Macedonian expansion eastwards during the 5th century BC, following the power vacuum that occurred in the north after the retreat of the Persians. The wealth of these mines is perhaps best illustrated in the fact that Pangaion became the main metal source for the coinage of the Macedonian kings and, presumably, of cities in its vicinity.[42] Therefore, it becomes clear that mining was an important source of wealth in the region that provided metal not only for coinage, but also for further income if sold or used for the production of various objects, including for example vessels or arms, for both the local and the international market.[43]

Heinz Josef Unger and Ewald Schütz assume that the mining operations in the area declined during Roman and Byzantine times, probably because of earthquake damage, as well as a general exhaustion of the ore, while in the surviving active mines silver became more important than gold during Byzantine times. The mining in the area was completely abandoned by the 7th–11th centuries AD.[44]

Mining is also directly attested at Pergamos, both through the abundant slag remains in and around the site, and the closest mining galley being located only 200 m to the north of the site, at the location known as Panagias Tripes.[45] More extensive networks of mines were probably located about a kilometre to the east, on the other side of Tsali, and around one kilometre to the north-west of Moustheni.[46] Presumably the area was involved in mining early on, and it has been assumed by Unger, based on Herodotos, that Pergamos served as one of the trade conduits coming out of the Pangaion towards the Greek cities on the Aegean shore.[47] If this assumption is correct, then a great deal of wealth flowed through Pergamos.

It is, however, only in the Late Archaic period that we see the first clear evidence of permanent habitation in Pergamos, provided by the impressive limestone fortifications (see above). Furthermore, the passage by Herodotos (7.112), although brief, provides three valuable pieces of information: it anchors the date of the site with its strong fortifications, and it testifies to the significance of the site around 500 BC, as well as the importance of the travel route in the area.

First of all, Herodotos provides a firm *terminus ante quem* for Pergamos, and presumably for the still-visible impressive walls, in early 480 BC. It is also notable that the mention of the site's fortifications (or rather, its walls, τείχεα), suggested not only that Pergamos was fortified, but also that the walls were impressive in comparison to those of other settlements. The passage further indicates that the Great King, Xerxes, did not attack the settlements in the Pieria valley. Presumably they either submitted, or more likely, had already been conquered by about 510 BC, when Dareios' general Megabazos had subjugated all the tribes and cities along the Aegean coast east of the Lower Strymon;[48] possibly, Pergamos had even to contribute troops to Xerxes' expedition.[49] The strength of the walls is further highlighted by the name Pergamos which, according to Pierre Chantraine, is related to pyrgos (πύργος), and has its roots in a term for citadel.[50] The perception of the name in antiquity is vividly illustrated by homonymous sites, such as the much more famous Pergamon in Asia Minor, as well as Homer's use of the word to designate the acropolis of Troy in the *Iliad*.[51] There can thus be little doubt that Pergamos in Pieria valley was perceived as an unusually well-fortified site during the Late Archaic and Early Classical periods.[52]

Second, by explicitly mentioning the site, Herodotos establishes that Pergamos was relatively important in the area around 480 BC and worthy of the attention of his readers. Furthermore, unless the site was a completely new foundation, we should probably expect that it had been established there some time earlier. It may even go back to the Early Iron Age, as suggested by Malamidou, but this cannot be established at the moment.[53] On the other hand, a fact with a tangible effect in the whole region is that, as early as the 6th century BC, Phagres had been colonized by Thasos. Considering the connection between Phagres and Pergamos in Herodotos, as well as the distinctly Greek-style fortification at the latter site, it is a plausible assumption that Pergamos may also have been taken

[42] For the exploitation of the mines of silver near Lake Prasias, by Mt Dysoron, by Alexander I—most probably connected to the inauguration of his silver coinage—, see Hdt 5.17.2. For the exploitation of the mines in Mt Pangaion by Philip II, as a source for his gold coinage, and the overall economic gain from this activity, see Diod. Sic. 16.8.6–7.

[43] Kremydi 2011, 160.

[44] Unger & Schütz 1982, 165; Unger 1987, 87, 110, 112.

[45] Pikoulas 2001, 66.

[46] Unger 1987, 91.

[47] Unger 1987, 109.

[48] Zarhnt 2015, 38–39, although this control probably collapsed during the Ionian Revolt of 499–494 BC only to be restored in 492 BC. It is unlikely that the Pieria valley escaped this conquest despite not being on the coast considering that the route of the main road ran through the area.

[49] Zarhnt 2015, 39 (presumably based on Hdt. 7.110), states that all tribes and Greek cities along the route of Xerxes' army had to contribute with troops or ships; it is difficult to see how Pergamos would not have fallen within this category.

[50] Chantraine vol. 3, s.v. Πέργαμος.

[51] Hom. *Il.* 4.508, 5.446, 5.460, 6.512, 7.21, 24.700.

[52] Note that the Pieria in Hom. *Il.* 14.226 refers to the foothills at Mount Olympos, not the area discussed here.

[53] Malamidou 2021, 51.

over by the Thasians at this time.[54] Finally, the mention that Xerxes marched through the Pieria valley in 480 BC suggests that this was the main road in the area at the time, preferred to the later route on the north side of Mt Pangaion, or one following the coast on the south side of Mt Symbolon.

Much less is known about Pergamos during the Classical and Hellenistic periods, although surface pottery at the site suggests continuous habitation.[55] Yet, the 5th century BC, following the march by Xerxes, is likely to have been a turbulent period, since the region became a point of interest for Athens. In the early 470s BC, the Athenians gained a foothold in the area by conquering Eion and forcing Thasos to join the Delian League.[56] In the later 460s BC, the area came under attack again, when the Athenians sent a large force to march into the Thracian hinterland to capture the valuable mines, presumably at Mt Pangaion and the lower Strymon valley; the venture failed after a defeat at Drabeskos near Daton.[57] Since Daton is possibly to be identified with modern Eleutheroupolis or Amygdaleonas (Drama has also been proposed), this suggests that the Athenians were active in the general area of Pergamos.[58]

The access to timber and related products, such as pitch, could be one of the reasons why the region became attractive to the Athenians and their fleet. During the early 5th century BC the Persians noted, according to Herodotos, that the area around the river Strymon was strategically valuable because of its abundant forests suitable for shipbuilding.[59] There is no reason to believe that the situation was not similar in the mountains around the Pieria valley, as they are still heavily forested today.[60] It is most likely that the locals made good use of this valuable resource, while there are indications that the Athenians also exploited the forests of Pangaion, albeit presumably only on the west side of the mountain and not before Themistocles' proposal for a naval programme in 483 BC.[61] Later, from the end of the 5th century BC, the importance of timber in Macedonia was so great that it became personally controlled by the king.[62]

One particularly interesting point here is that there is evidence that suggest that Pergamos might have struck its own coinage during the early Classical period. Selene Psoma has convincingly attributed to Pergamos a silver denomination depicting, on the obverse, the forepart of a goat and, on the reverse, a concave square with the letters "ΠΕ"; she dated the coin in the second quarter of the 5th century BC.[63] The depiction of a goat is usually linked to Dionysos and his cult, which held special significance in the region of Thasiaki Peraia (the Thasian coastline), between the rivers Nestos and Strymon, inhabited by settlers from the island of Thasos. The region was known for the cultivation of wine since the Neolithic period, while a great Thracian sanctuary of Dionysos is mentioned by Herodotos (7.111) and corroborated by the archaeological evidence in the broader area.[64] Dionysos' cult was important on Thasos as well; moreover, Paros, the metropolis of Thasos and, in principle, all of Thasos' colonies on the Mainland (Galipsos, Oisyme, Neapolis and, possibly, Eion), had traditionally employed the goat as the main obverse type in its coinage.

The attribution of this coin issue to Pergamos is convincing, but, in the current state of evidence, it remains uncertain and awaits verification. However, if the attribution is correct, coinage seems to corroborate the strong connections between Pergamos and Thasos, already suggested by the fortification style. Moreover, in this context, it is especially important to note that the other fortified city of the valley mentioned by Herodotos, Phagres, has been securely attributed a series of bronze coins dated in the 4th century BC, giving the site its secure identification and offering testimony for its political status as a *polis*.[65] Thus, a civic coinage of Pergamos would certainly not seem improbable.

The Athenian ambitions in the area continued until the end of the Peloponnesian War, and some scholars have suggested that Pergamos was incorporated in the Delian League, based on fragmented epigraphic evidence potentially naming Pergamos among the cities that paid tribute in 425/4 BC.[66] It is also possible that the Pieria valley was dominated by the Odrysians during the last quarter of the 5th century BC, although the actual extent of their lands is debated.[67] Following the Peloponnesian War and the Athenian defeat, Thasos

[54] Loukopoulou 2004, 865.
[55] Loukopoulou 2004, 857; Pikoulas 2001, 65.
[56] Zarhnt 2015, 39.
[57] Loukopoulou 2004, 855.
[58] Loukopoulou 2004, 860; Koukouli-Chryssanthaki & Malamidou 2022, 135. However, *Tabula Peutingeriana* VII seems to place Drabeskos north of Philippi. Appian (*B. Civ.* 4.13.105) states that Philippi was formerly known as Daton and before that Krenides. For a detailed discussion of the, largely conflicting, sources concerning the location of Drabeskos and Daton, see Badian 1993, 82–83. A.G. Zannis (2014, 178–181, 254–255, 523–539), after a long argumentation, places Daton in modern Eleutheroupolis.
[59] Hdt. 5.23. See also Borza 1987, 36.
[60] R. Meiggs (1983, 126) stresses that the mountains in Thrace east of Macedonia were well forested in antiquity.
[61] Borza 1987, 33–34. See also, Meiggs 1983, 356–357.
[62] Borza 1987, 39. For the importance of timber in Macedonia and, more specifically, in the region between the rivers Strymon and Nestos, where the Pieria valley is situated, see Zannis 2014, 223–225.
[63] Psoma 2003.
[64] Pilhofer 1995, 100, 105; Pikoulas 2001, 200–201.
[65] Liampi 1991.
[66] *IG* I^3 71 IV, lines 62–64: Οἱ [Πί]ερε[ς] π[αρὰ] [Πέρ]γαμο[ν] καὶ οἱ [Περγ]αμ[οτειχῖται].
[67] Zarhnt 2015, 42.

took the opportunity to assert its dominance over the Angites plain, where Philippi would later be founded, as well as the entrances to the Pangaion mines.[68] This move provided a justification for Philip II to intervene, leading to the founding of his eponymous city.

It is unclear if the situation changed substantially for Pergamos after the foundation of Philippi in 365 BC. It is believed that, during the Early Hellenistic period, the territory of Philippi reached Daton, which is possibly identified with a fortified settlement on Vassilaki hill near Amygdaleonas, located just before the pass leading to modern Kavala, or modern Eleutheroupolis;[69] if the later identification is correct, it would place Daton just outside the Pieria valley. It is perhaps in this context that one should view the founding of the sanctuary of the Hero Auloneites, just before the pass leading from the Pieria valley to the Angites plain, in the 3rd century BC; in this location, it could be used as a way for the inhabitants of Pergamos to manifest control over their territory.[70]

The development of the road system after the Archaic period is, unfortunately, almost completely unknown.[71] Presumably, the road that the Great King used retained its importance, or at least some of it, during Classical times. The continued use of this road during the Hellenistic period is suggested through the establishment of the sanctuary to the Hero Auloneites. While the mere fact of establishing a cult is not necessarily significant for the use of the road, the name and function of the deity is in this case indicative of the importance of the road in its vicinity. Related to αὐλών, a hollow between hills or banks, scholars have interpreted Auloneites as a protector of the narrow passes.[72] Therefore, his cult may have been, at least to some extent, established in this spot because it overlooked the beginning and end of the, perhaps at this point dangerous, route through the Pieria valley, just before the pass towards the east.

Later, it is most probable that at some point during the Hellenistic period the old main artery running through the Pieria valley must have lost much of its importance, as the Romans decided to establish the *Via Egnatia* north of Mt Pangaion in the 140s BC.[73] Perhaps, this can explain the current dearth of early Roman and Imperial remains at Pergamos, as the location no longer held the strategic place it had in the past, leading to less investment at the site. Moreover, the Roman rational for using the inland route north of Mt Pangaion suggests that this had already been established as the most important inland line of communication before that point. Yet, it is also likely that traffic did not stop completely in the valley; this is most clearly shown by the identification of a Roman way station or villa about 1.5 km to the west of Pergamos. It is also possible that the road depicted as going between Philippi and Amphipolis on the *Tabula Peutingeriana* reflects a route passing through the Pieria valley.[74]

After the end of the Hellenistic period, there is a continued trend of less evidence for the habitation in Pergamos, indicated by scarcer Early- and Mid-Roman (31 BC–AD 337) ceramic fragments at the site, according to Pikoulas.[75] This may suggest a diminished importance of Pergamos as the newly founded colony of Philippi (42 BC) became the unquestioned centre of the larger area during Roman times.[76] In general, it is believed that the territory of Philippi extended from the river Strymon in the west to the river Nestos in the east, a distance of about 60 km, with some disagreement on the exact boundaries.[77] Regardless, all scholars have hitherto taken it for granted that the Pieria valley fell within the sphere of the Roman colony.[78]

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[68] Loukopoulou 2004, 855.

[69] Loukopoulou 2004, 860; Koukouli-Chryssanthaki & Malamidou 2022, 135. See also *Note 58* above.

[70] Following F. Polignac's (not always unproblematic) interpretative framework (Polignac 1995, in particular pp. 100–106).

[71] There is a local tradition identifying the later Ottoman road through the valley (probably going back on older routes) with the *Via Egnatia* (Pikoulas 2001, 192–194). However, based on milestones it is clear that the Via Egnatia ran north of Pangaion.

[72] Koukouli-Chryssanthaki & Malamidou 2022, 134. See also LSJ s.v. αὐλών.

[73] Yet, it seems clear that the Angites plain was marshy during the Hellenistic period, at least into Early Imperial Roman times, and may have been poorly suited for land movement, at least during periods and depending on the quality of the early *Via Egnatia*. Appian (*B. Civ.* 4.13.105) states that the marsh extended from Philippi all the way to the sea towards the south, although this clearly is an exaggeration considering that there is a mountain pass between the valley and the coast. It is also described (App. *B. Civ.* 4.14.107) how the whole plain was prone to being flooded. During the battle at Philippi in the autumn of 42 BC, this problem forced the armies to construct causeways in order to facilitate movement (App. *B. Civ.* 4.14.109, 122). The Pieria valley would potentially offer an alternative route when the Angites plain was unsuitable.

[74] This is based on the suggestion that the lower of the two roads connecting Heraclea Sintica with Philippi was in fact misdrawn on the map and should have connected Heraclea with Amphipolis (Kolev 2017, 144–145). Overall, there are many questions concerning the routes in this area, including that of the *Via Egnatia*, see Lolos 2008, 82–84; Kolev 2017.

[75] Pikoulas 2001, 65.

[76] For a detailed discussion, see Rizakis 2006. Notably, scholars have often treated the extent of the territory of the Roman colony as that of a *chora* of a Greek city (Rizakis 2006, 123).

[77] Koukouli-Chryssanthaki & Malamidou 2022, 135. See also Rizakis 2006.

[78] Rizakis 2006.

This assumption is further reinforced by the increased activity in the sanctuary of the Hero Auloneites, which shows strong connections to Philippi instead of the considerably closer Pergamos.[79] Clearly, the interactions now crossed eastwards primarily through this small pass that had presumably constituted the boundary of Pergamos' influence towards this direction in the past. Yet, Athanassios Rizakis has suggested that we should perhaps rethink how the territory of Philippi functioned during Roman times, and instead of looking for a monolithic domain controlled by the colony, it is possible that some areas inhabited by friendly peoples were allowed a certain administrative independence and autonomy.[80] This could, presumably, be used as a better lens to view Pergamos during the Roman period.

A connection between Pergamos and the sanctuary of Auloneites in Roman times is also suggested by a tomb stele found in Moustheni, depicting the so-called Thracian Rider in relief, a common way to depict heroes in the broader area of Macedonia and Thrace, including this local variety;[81] interestingly, although the inscription is in Latin, it is written in the Greek alphabet.[82]

Following Roman times, nothing is known about Pergamos' fate. The Late walls and the demi-colonnette may signify activity into the Late Roman or medieval period, but this cannot be ascertained without excavations allowing more precise dating. Similarly, signs of activity on the Tsali mountain outcrop above the site suggests that even if the old fortified city itself was abandoned, life continued in the valley as it had for millennia.

Concluding remarks

Despite this combination of historical and archaeological evidence that clearly indicates a site with intense activity, Louisa Loukopoulou categorizes Pergamos as a Pre-Hellenistic settlement, not attested as a *polis*.[83] However, based on the available evidence, we tend to believe that Pergamos exhibits traits attributed to a *polis* according to the criteria established by the Polis Centre.[84]

The city's location in the heart of the Pieria valley and its robust fortifications are indicative of its central importance in the region, being impressively visible by the main route of the valley, as Herodotos' reference to the march of the Persian army suggests. The need for such walls would perhaps indicate, apart from purely defensive purposes against hostile neighbours, a claim of some sort of power negotiation and control in the region.

The rich natural resources available in a wide radius around Pergamos probably became a point of dispute for the various competitive forces that acted in the area over the course of time, starting with the local inhabitants and the Thasians, followed by the Athenians and then the Macedonians; one can only wonder what was the role of such a firm stronghold in the valley, with regard to the control and exploitation of those resources.

Furthermore, if correct, then the striking of coins would indicate a level of internal organization and a sense of self-awareness and autonomy that is characteristic of the *polis* formation, but this remains to be ascertained in the future. The decision to implement a civic coinage for the city would be indicative of large-scale trade and/or building activity. Meanwhile, the implementation and use of civic coin types tailored specifically for the city would bind Pergamos to its broader cultural environment, while strengthening its own civic identity and status within the wider area. Future analysis of the pottery finds, as well as potential discoveries of coins, could assist in the better understanding and study of the site's contacts and financial activities.

Finally, the recent observations at the site offer clear evidence of a continuous habitation, with a variety of activities, stretching from the domestic to the public sphere, while the probable existence of a 5th–6th century AD church seems to suggest an active community at the site during the Late Roman period. It is thus clear that Pergamos had a long and important history in this region, but only future investigation of the site, with excavations, can provide a clearer picture of the city's life and its role in the Pieria valley and the broader area.

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[79] Koukouli-Chryssanthaki & Malamidou 2022, 148–149.
[80] Rizakis 2006, 129.
[81] The so-called Thracian Rider is frequently encountered in the votive and funerary reliefs of Thrace and its neighbouring areas, with more than 2,000 reliefs found from at least 350 sites. The first depictions are from the Hellenistic period, but the majority are dated to the Roman Imperial era (Dimitrova 2002, 209–210).
[82] Samsaris 1976, 162; Collart 1937, 305, n. 3: Γαίου[ς] Μ(ά)ρκι φίλοιους φή(κυτ) φράτρι ἀν(ν)ώρου(μ)μ'.
[83] Loukopoulou 2004, 857. See also Zannis 2014, 316.
[84] According to M.H. Hansen (2004, 7), who lists the minting of coins as a criterion for a community being a *polis*.

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