



Publikationen des Deutschen Archäologischen Instituts

---

Sophia Nomicos, Nicola Nenci et al.

## The Amykles Survey Project. Results of the 2024 Season

Archäologischer Anzeiger 2. Halbband 2025, § 1–120

<https://doi.org/10.34780/45xszy11>

Herausgebende Institution / Publisher:  
Deutsches Archäologisches Institut

Copyright (Digital Edition) © 2026 Deutsches Archäologisches Institut  
Deutsches Archäologisches Institut, Zentrale, Podbielskiallee 69–71, 14195 Berlin, Tel: +49 30 187711-0  
Email: [info@dainst.de](mailto:info@dainst.de) | Web: <https://www.dainst.org>

### Nutzungsbedingungen:

Mit dem Herunterladen erkennen Sie die [Nutzungsbedingungen](#) von iDAI.publications an. Sofern in dem Dokument nichts anderes ausdrücklich vermerkt ist, gelten folgende Nutzungsbedingungen: Die Nutzung der Inhalte ist ausschließlich privaten Nutzerinnen / Nutzern für den eigenen wissenschaftlichen und sonstigen privaten Gebrauch gestattet. Sämtliche Texte, Bilder und sonstige Inhalte in diesem Dokument unterliegen dem Schutz des Urheberrechts gemäß dem Urheberrechtsgesetz der Bundesrepublik Deutschland. Die Inhalte können von Ihnen nur dann genutzt und vervielfältigt werden, wenn Ihnen dies im Einzelfall durch den Rechteinhaber oder die Schrankenregelungen des Urheberrechts gestattet ist. Jede Art der Nutzung zu gewerblichen Zwecken ist untersagt. Zu den Möglichkeiten einer Lizenzierung von Nutzungsrechten wenden Sie sich bitte direkt an die verantwortlichen Herausgeber\*innen der jeweiligen Publikationsorgane oder an die Online-Redaktion des Deutschen Archäologischen Instituts ([info@dainst.de](mailto:info@dainst.de)). Etwaige davon abweichende Lizenzbedingungen sind im Abbildungsnachweis vermerkt.

### Terms of use:

By downloading you accept the [terms of use](#) of iDAI.publications. Unless otherwise stated in the document, the following terms of use are applicable: All materials including texts, articles, images and other content contained in this document are subject to the German copyright. The contents are for personal use only and may only be reproduced or made accessible to third parties if you have gained permission from the copyright owner. Any form of commercial use is expressly prohibited. When seeking the granting of licenses of use or permission to reproduce any kind of material please contact the responsible editors of the publications or contact the Deutsches Archäologisches Institut ([info@dainst.de](mailto:info@dainst.de)). Any deviating terms of use are indicated in the credits.

---

## IMPRESSUM

### Archäologischer Anzeiger

erscheint seit 1889/*published since 1889*

AA 2025/2 • 392 Seiten/*pages mit/with 339 Abbildungen/illustrations*

### Herausgeber/Editors

Friederike Fless • Philipp von Rummel  
Deutsches Archäologisches Institut  
Zentrale  
Podbielskiallee 69–71  
14195 Berlin  
Deutschland  
www.dainst.org

### Mitherausgeber/Co-Editors

Die Direktoren und Direktorinnen der Abteilungen und Kommissionen des Deutschen Archäologischen Instituts/  
*The Directors of the departments and commissions:*

Ortwin Dally, Rom • Margarete van Ess, Berlin • Svend Hansen, Berlin • Kerstin P. Hofmann, Frankfurt a. M. •  
Jörg Linstädter, Bonn • Felix Pirson, Istanbul • Dietrich Raue, Kairo • Paul Scheduling, Madrid • Christof Schuler, München •  
Katja Sporn, Athen

### Wissenschaftlicher Beirat/Advisory Board

Norbert Benecke, Berlin • Orhan Bingöl, Ankara • Serra Durugönül, Mersin • Jörg W. Klinger, Berlin •  
Franziska Lang, Darmstadt • Massimo Osanna, Matera • Corinna Rohn, Wiesbaden •  
Brian Rose, Philadelphia • Alan Shapiro, Baltimore

### Peer Review

Alle für den Archäologischen Anzeiger eingereichten Beiträge werden einem doppelblinden Peer-Review-Verfahren durch internationale Fachgutachterinnen und -gutachter unterzogen./*All articles submitted to the Archäologischer Anzeiger are reviewed by international experts in a double-blind peer review process.*

### Redaktion und Layout/Editing and Typesetting

Gesamtverantwortliche Redaktion/*Publishing editor:*

Deutsches Archäologisches Institut, Redaktion der Zentralen Wissenschaftlichen Dienste, Berlin  
(<https://www.dainst.org/standort/zentrale/redaktion>), [redaktion.zentrale@dainst.de](mailto:redaktion.zentrale@dainst.de)

Für Manuskripteinreichungen siehe/*For manuscript submission, see:* <https://publications.dainst.org/journals/index.php/aa/about/submissions>

Redaktionelle Bearbeitung/*Editing:* Annika Busching, Berlin ([www.archaiologos.de](http://www.archaiologos.de))

Satz/*Typesetting:* le-tex publishing services GmbH, Leipzig

Corporate Design, Layoutgestaltung/*Layout design:* LMK Büro für Kommunikationsdesign, Berlin

Umschlagfoto/*Cover illustration:* Jenny Schlehofer, 2022 (Niedersächsisches Landesmuseum Hannover, Forschungsprojekt Tuna el-Gebel). Gestaltung Catrin Gerlach nach Vorlage von Tanja Lemke-Mahdavi. Alle Rechte vorbehalten

### Nutzungsbedingungen/Terms of Use

Der Text steht unter der Creative Commons Attribution 4.0 International License (CC BY 4.0: <https://creativecommons.org/licenses/by/4.0>). Für die Abbildungen gelten die Angaben im Bildnachweis./This text is licensed under the Creative Commons Attribution 4.0 International License (CC BY 4.0: <https://creativecommons.org/licenses/by/4.0>). The illustrations are subject to the terms specified in the illustration credits.

### Druckausgabe/Printed edition

© 2026 Deutsches Archäologisches Institut

Druck und Vertrieb/*Printing and Distribution:* Dr. Ludwig Reichert Verlag, Tauernstraße 11, 65199 Wiesbaden •  
[info@reichert-verlag.de](mailto:info@reichert-verlag.de), [www.reichert-verlag.de](http://www.reichert-verlag.de)

P-ISSN: 0003-8105 – ISBN: 978-3-7520-0908-8

Druck und Bindung in Europa/*Printed and bound in Europe*

### Digitale Ausgabe/Digital edition

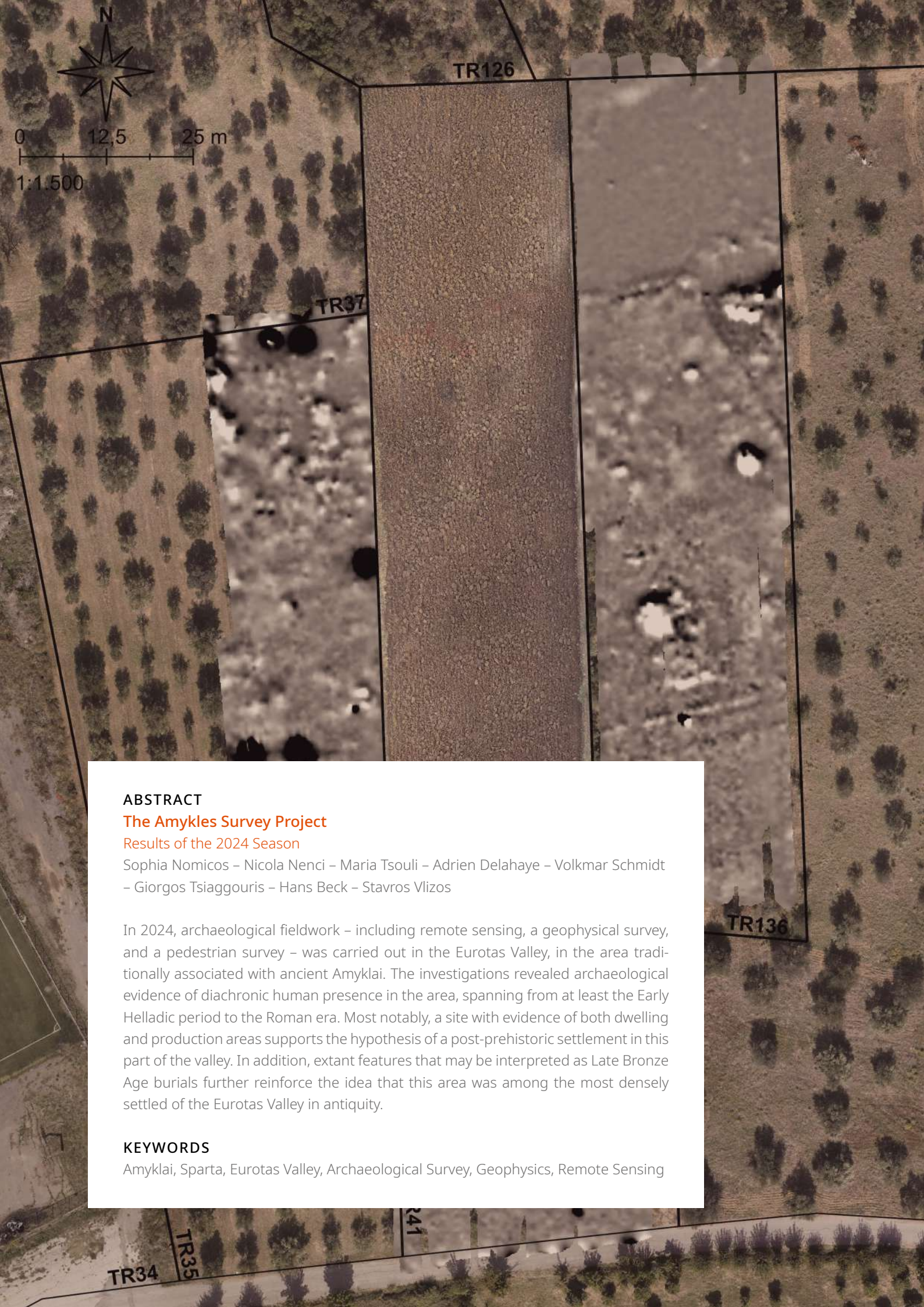
© 2026 Deutsches Archäologisches Institut

Webdesign/*Webdesign:* LMK Büro für Kommunikationsdesign, Berlin

XML-Export, Konvertierung/*XML-Export, Conversion:* digital publishing competence, München

Programmiertechnische Anpassung des Viewers/*Viewer Customization:* LEAN BAKERY, München

E-ISSN: 2510-4713 – DOI: <https://doi.org/10.34780/wyyqy657>



## ABSTRACT

### The Amykles Survey Project

#### Results of the 2024 Season

Sophia Nomicos – Nicola Nenci – Maria Tsouli – Adrien Delahaye – Volkmar Schmidt  
– Giorgos Tsiaggouris – Hans Beck – Stavros Vlizon

In 2024, archaeological fieldwork – including remote sensing, a geophysical survey, and a pedestrian survey – was carried out in the Eurotas Valley, in the area traditionally associated with ancient Amyklai. The investigations revealed archaeological evidence of diachronic human presence in the area, spanning from at least the Early Helladic period to the Roman era. Most notably, a site with evidence of both dwelling and production areas supports the hypothesis of a post-prehistoric settlement in this part of the valley. In addition, extant features that may be interpreted as Late Bronze Age burials further reinforce the idea that this area was among the most densely settled of the Eurotas Valley in antiquity.

## KEYWORDS

Amyklai, Sparta, Eurotas Valley, Archaeological Survey, Geophysics, Remote Sensing

# The Amykles Survey Project

## Results of the 2024 Season

with contributions by Maria Tsouli, Adrien Delahaye, Volkmar Schmidt, Giorgos Tsiaggouris, Hans Beck, and Stavros Vlizos

### Introduction

<sup>1</sup> The modern village of Amykles, located in the Eurotas Valley ca. 7 km south of the city of Sparti (Fig. 1), was formerly known as Sklavochori until its renaming in 1940 to emphasize its historical connection to ancient Amyklai<sup>1</sup>. This place is well attested in literary and epigraphical sources, with its earliest mention occurring in the Homeric catalog of Ships<sup>2</sup>. Modern scholarship believed it to be a politically independent entity before being incorporated into the Spartan political community, possibly as its *ἑκτη βεῖρα*<sup>3</sup>. Ancient tradition implied that Sparta only rose to power in the southern Peloponnese after the conflict with Amyklai was resolved<sup>4</sup>. In antiquity, the place was especially renowned for the sanctuary dedicated to the local hero Hyakinthos and the god Apollo Amyklaios<sup>5</sup>.

<sup>2</sup> Early modern travel writers have tried to locate both the sanctuary and the settlement since the 18<sup>th</sup> cent., focusing on the area of Sklavochori and the nearby Agia Kyriaki hill with some believing the hill to be the site of the settlement, others that of the sanctuary<sup>6</sup>. This dispute was settled in the late 19<sup>th</sup> cent., when Ch. Tsountas conducted the first excavations on the Agia Kyriaki hill and uncovered inscriptions that allowed him to identify the site as the sanctuary of Apollo Amyklaios<sup>7</sup>.

<sup>1</sup> The name Amyklai was first reintroduced in 1833, when a δήμος Αμυκλών was established that comprised a number of local villages. In 1940, the then municipality of Sklavochori was renamed as Amykles. Today, the former village of Sklavochori is also known as Amykles, see: Antonakos 1982, 262 f. In the 1 : 5000 Hellenic Military Geographical Service (Γ.Υ.Σ.) map no. 73425 the eastern part of the settlement, to the southwest of the Sanctuary of Apollo Amyklaios, is designated as Αμύκλαι, whereas the western part of the village is designated as Σκλαβοχώριον.

<sup>2</sup> Hom. Il. 2, 581.

<sup>3</sup> Cartledge 1979, 107, 129; cf. Lupi 2006 for a different view.

<sup>4</sup> Arist. fr. 532 Rose<sup>3</sup>; Paus. 3, 2, 6; cf. Pind. Isthm. 7, 14–15.

<sup>5</sup> Polyb. 5, 19, 1–3.

<sup>6</sup> See Matalas 2011–2012.

<sup>7</sup> Cf. Tsountas 1892.

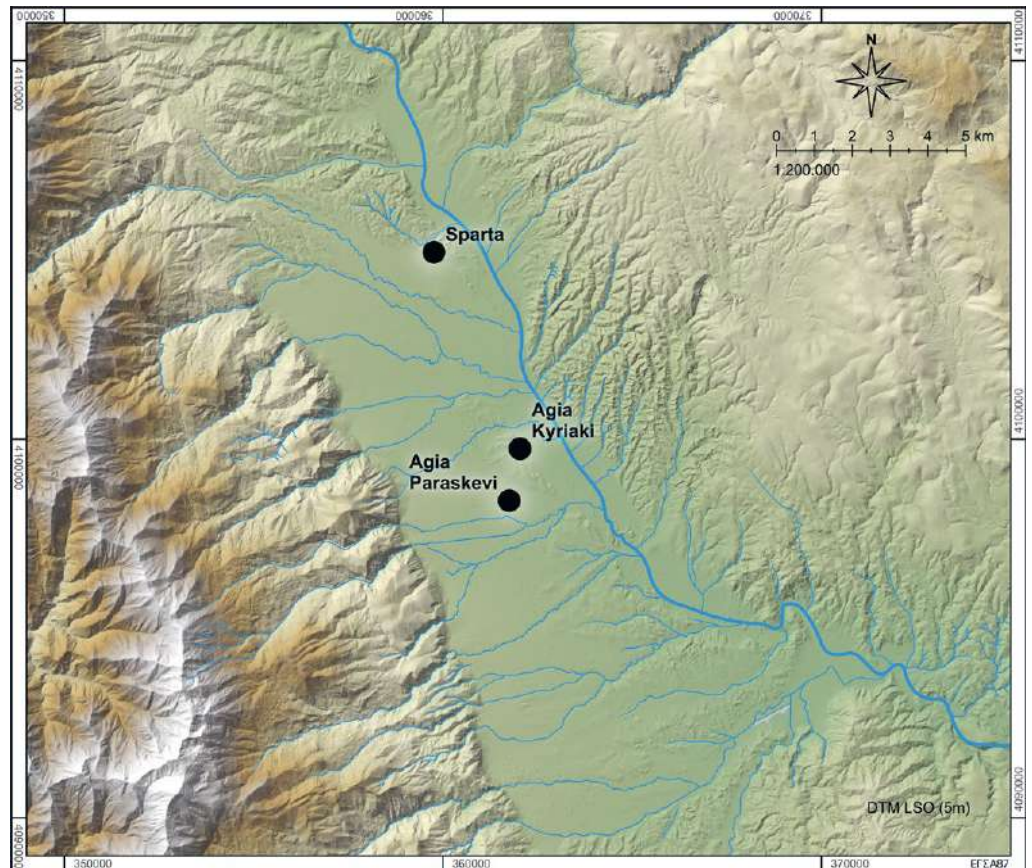


Fig. 1: Eurotas Valley. Topographical map of the upper Eurotas Valley

3 In the 20<sup>th</sup> cent., the hill was archaeologically explored episodically<sup>8</sup>. Since 2005, the site has been excavated by the Amykles Research Project, initially conducted under the auspices of the former 5<sup>th</sup> Ephorate of Prehistoric and Classical Antiquities and directed by A. Delivorrias, Director of the Benaki Museum. Since 2018, the project has been carried out by the Archaeological Society of Athens, under the direction of St. Vlizos<sup>9</sup>. In 2022, the project entered a new phase, shifting focus to the peripheral areas of the sanctuary. This phase aims to enhance our understanding of how the site is embedded within its local environment and how it integrates into the historical topography and settlement structure of this part of the Eurotas Valley. After two seasons of geophysical survey and excavation immediately outside of the peribolos wall, in 2024, a third season expanded investigation to the wider southern surroundings of the sanctuary by means of remote sensing, pedestrian, and geophysical survey<sup>10</sup>. As the 2024 initial field survey campaign yielded promising results for further investigation, a five-year project starting in 2025 will expand the research area more southwards. In

8 Fiechter 1918; Buschor – von Massow 1927; Delivorrias 1968a; Delivorrias 1968b.

9 For reports of these excavations, see <<https://amyklaion.gr/en/research/publications>> (01/06/2026). For studies on various aspects of the sanctuary such as the cult and the Hyakinthia, the throne monument, and specific periods at the hill, see <<https://amyklaion.gr/en/research/bibliography/>> (01/06/2026) and Vlizos 2020, 45 f.

10 Those works, under the auspices of the Amykles Research Project 2020–2024 (Archaeological Society at Athens), were carried out by the Amykles Research Project (St. Vlizos, A. Delahaye, N. Nenci) and the Ephorate of Antiquities of Laconia (M. Tsouli, G. Tsiaggouris), in collaboration with the University of Münster (H. Beck, S. Nomicos) and the École française d’Athènes (A. Delahaye). The archaeological survey was conducted by S. Nomicos, N. Nenci, A. Delahaye, and G. Tsiaggouris. The geophysical survey was carried out by V. Schmidt (University of Münster) and the historical analysis by H. Beck. It was mainly financed by the cluster of Excellence of the University of Münster within the project »Belonging in/to Lakonia. An Archaeohistorical Study on the Sanctuary of Apollo at Amyklai and Its Surroundings« (PI H. Beck and S. Nomicos) with contributions from the École française d’Athènes.

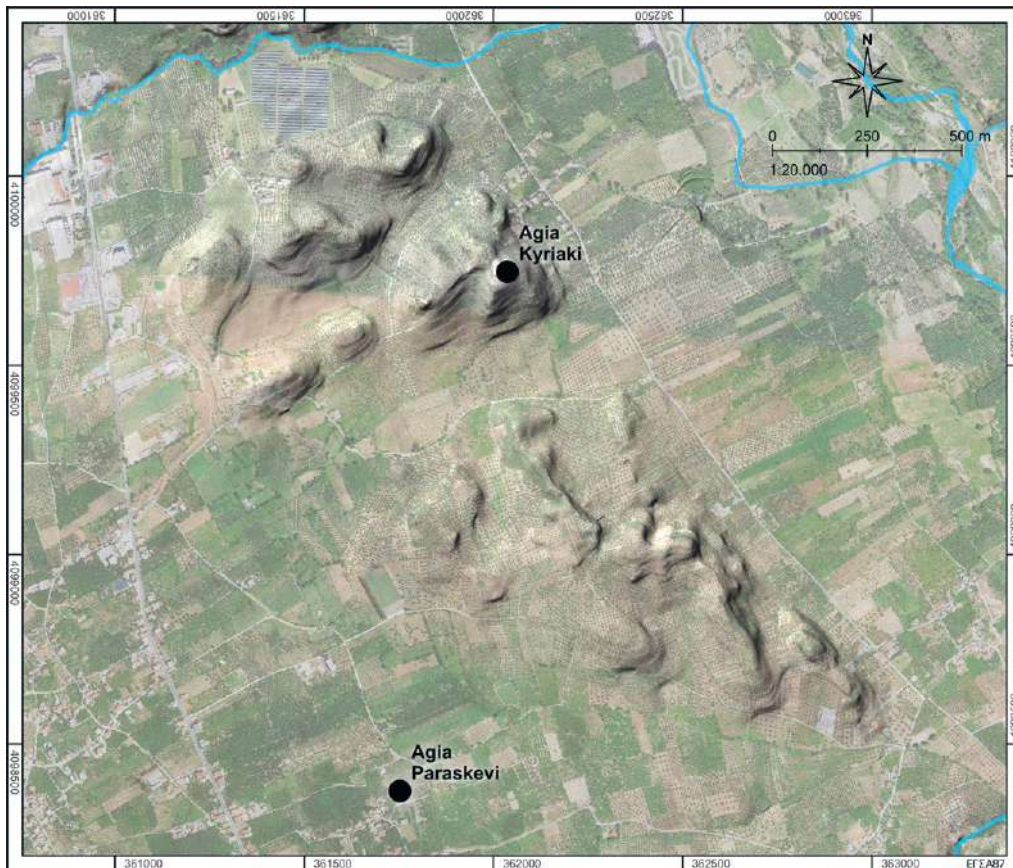


Fig. 2: Amykles. 2024 survey area with major known sites

2

this article, we set out the methodology and preliminary results of the 2024 pedestrian field survey and the geophysical research carried out south of the Amyklaion.

4 For our initial investigations, we selected an area of approximately 0.6 km<sup>2</sup> south of the hill of Agia Kyriaki, west of the hamlet Peristeri<sup>11</sup> and north of modern Amykles (Fig. 2). The decision to investigate this specific area was primarily motivated by the notable absence of substantial archaeological evidence in the immediate vicinity of the sanctuary, although scholarly consensus holds that the ancient settlement of Amyklai extended across a zone approximately demarcated to the north by the sanctuary of Apollo Amyklaios and to the south by that of Alexandra/Kassandra and Agamemnon<sup>12</sup>. While both cult sites have been identified with a considerable degree of confidence, the intervening area remains remarkably underdocumented, although in recent years an effort has started to systematically acquire knowledge about the Eurotas Valley by archaeological field survey<sup>13</sup>. Apart from a number of isolated archaeological works, so far only published as preliminary reports, no systematic exploration has been conducted in the Amykles area, and visible surface remains are almost entirely lacking<sup>14</sup>.

11 For reference to this toponym see: 1 : 5000 I.Y.Σ. map no. 73425 in Fig. 7 below.

12 The most important sources for the general topographical location are Paus. 3, 18, 6–8; Paus. 3, 19, 6–8 and Polyb. 5, 19, 1–3. For modern hypotheses on the exact extent see e. g. Cartledge 1979, 108; Salapata 2014, 15 f. 20.

13 For the identification of the general site of the sanctuary of Alexandra/Kassandra and Agamemnon through votive deposits see: Christou 1956, 211 f. pl. 104. 105; Christou 1960, 228–231 pl. 170. 171; Christou 1961, 177 f.; Christou 1962, 113; Themis 1998. Ch. Christou and A. Themis excavated two votive deposits at Antonakos and Sakellarakos plot, respectively, west and north of Agia Paraskevi Church. For recent archaeological survey works in the Eurotas Valley, see for Agios Vasileios: Wiersma et al. 2020; Wiersma et al. 2022a; Wiersma et al. 2022b; for Vapheio: Banou 2017; Banou et al. 2022.

14 For the reports, see Spyropoulos 1981, 127–129; Spyropoulos 1982, 112 pl. 60 a. b (Palaiopyrgi-Vapheio hill); Raftopoulou 1992; Raftopoulou 1994 (Boretos plot); Zavvou 1996, 129–131; Zavvou 1998a (Konidaris plot); Tsiaggouris 2011; Tsouli – Tsiaggouris 2013, 126 f. (Karagounis plot); Zavvou 2000 (Politis plot).



Fig. 3: Amykles. Georeferenced image of 1968 spy satellite (DS1045-2120DA024\_24\_c)

3

5 This lacuna in the archaeological record severely limits our ability to contextualize the Amyklaion within its broader ancient landscape. In order to shed light on the nature and extent of human activity in the vicinity of one of the most important religious sites of Laconia, field survey investigations were directed toward the area south of the sanctuary. The area selected for field survey, like all the surroundings of the hill of Agia Kyriaki, belongs to the particularly fertile part of the Eurotas Valley and, as such, nowadays is being used agriculturally. In the region, traditional farming organization prevails with relatively small fields mainly cultivated with olive groves and citrus fruits. Comparison with early satellite images shows that field boundaries have not changed much since then (Fig. 3)<sup>15</sup>. Although the area is largely unharmed by modern building activity or fencing and thus most of the surface was accessible, the varying state of cultivation of the agricultural fields led to a very diverse scale of visibility<sup>16</sup>. It ranges from recently plowed fields offering excellent conditions for surface inspection (Fig. 4 a), to overgrown fields with minimal to hardly any ground visibility (Fig. 4 b).

6 Such inconsistency in the condition of the countryside had two major implications for our work. First, it made it difficult to identify and target areas suitable for investigation. The absence of any obvious archaeological evidence emerging on the surface meant that survey area selection could not rely on visible cues, increasing the risk of surveying zones that might not yield any meaningful data. Second, the pronounced

15 Image in Fig. 3 is film no. DS1045-2120DA024 taken by CORONA satellite mission KH-4A no. DS1045. It captures the situation of the area of Amykles in 01/02/1968. The image was georeferenced by the Amykles Research Project team.

16 The only notable modern buildings are the chapel Xoklisi and a few small abandoned buildings that seem to have been connected to agricultural activities. In terms of modern structures, noteworthy are also the concrete irrigation channels that border many of the agricultural fields.



4

variability in surface conditions from one field to another had a significant impact on the comparability of survey results<sup>17</sup>.

Fig. 4: Amykles. Examples of visibility degrees; a) High visibility; b) Low visibility

## Previous Archaeological Research in the Area

7 Our current understanding of the archaeological landscape of Amykles relies primarily on the long-term and systematic investigations carried out at the Amyklaion – the only site in the area to have been excavated through multiple sustained campaigns. Beyond the Amyklaion, knowledge of the surrounding territory depends almost entirely on data recovered from rescue excavations. Although these interventions have yielded valuable material, their scope remains limited, and the evidence is often fragmented and spatially uneven. While many of these operations have been published, others remain unpublished. Nevertheless, because they constitute a crucial resource for reconstructing the broader historical and topographical context of ancient Amykles, the following section offers a concise overview of the most significant work conducted to date.

8 In the late 1950s/early 1960s, Ch. Christou was the first to identify the location of the sanctuary of Alexandra/Kassandra and Agamemnon<sup>18</sup>. His identification was based on the discovery and excavation of a votive deposit, west of the church of Agia Paraskevi. This deposit yielded thousands of votive offerings, along with inscribed pottery and stamped roof tiles confirming its association with the sanctuary of Alexandra/Kassandra and Agamemnon<sup>19</sup>. Christou explicitly describes the opening of trial trenches not only around the votive deposit by Antonakos plot, but also north, east, and south of the church of Agia Paraskevi<sup>20</sup>. However, these investigations did not reveal any traces of walls or structures that could be connected with the sanctuary itself<sup>21</sup>. As a result, Christou hypothesized that the sanctuary of Alexandra/Kassandra and Agamemnon must have stood either directly beneath the modern church of Agia Paraskevi, or slightly to its west.

9 Twenty years later, the then Ephor of Antiquities Th. Spyropoulos carried out trial trenches and further archaeological investigations in the broader area of Amykles, south of the hill of Agia Kyriaki. His research identified traces of habitation ranging from

17 See § 34.

18 Christou 1956; Christou 1960; Christou 1961; Christou 1962.

19 Christou 1956; Christou 1960; Christou 1961.

20 Christou 1960, 228, 231; Christou 1962.

21 Christou 1962 identified remnants of evidence of human activity from a variety of periods, ranging from the Geometric to the Byzantine time.

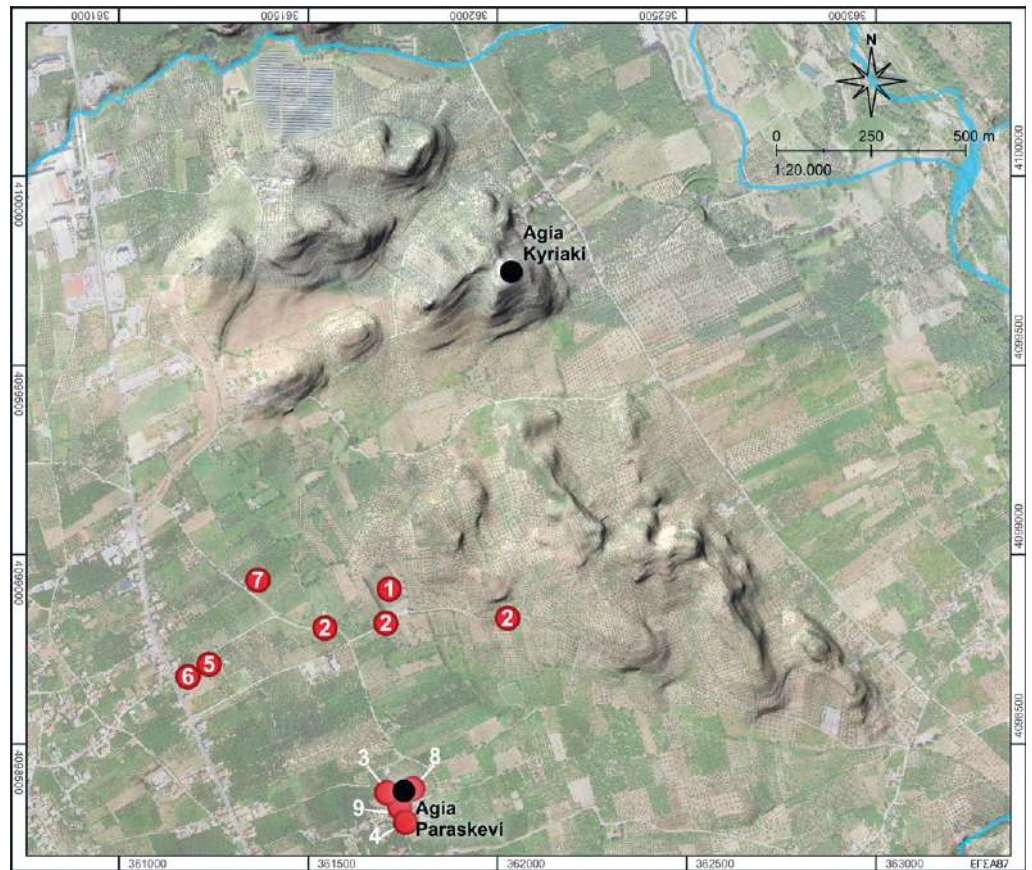


Fig. 5: Amykles. Rescue excavations map

5

the Early Helladic period to Roman times<sup>22</sup>. He also located the cemetery of rock-cut chamber tombs by an area known as Spilakia, and excavated a number of them<sup>23</sup>.

10 In 1987, during archaeological surveillance of the construction of the football field of Amykles, extensive ancient remains came to light in the northeastern part of the field (Fig. 5, no. 1). These remains include several walls of different orientations, built with small- to medium-sized stones laid dry, arranged in rows of two to four, forming parts of closed spaces resembling rooms. Some of these rooms bear stone pavements made of roughly dressed slabs, while one of the rooms features a floor of carefully laid clay tiles. At the center of the northern edge of the excavated area a well was discovered adjacent to a stone paved room. The complex has been interpreted as part of a pottery workshop<sup>24</sup>.

11 By the early 1990s, intensification of archaeological examination throughout the village of Amykles and Sklavochori led to the discovery and excavation of several sites, located either on private properties or along the modern road network connecting

22 Spyropoulos 1981, 127–129.

23 Spyropoulos 1981, 127–129 figs. 2–4. Spyropoulos also mentions the location of part of a LH IIIA to LH IIIB settlement immediately southwest of the hill of Agia Kyriaki (Spyropoulos 1981, 128 f.). He publishes photos of painted LH III figurines, of «the same type as those found on top of the hill of Agia Kyriaki» (Spyropoulos 1981, 129 pl. 60 d), as well as part of the excavated habitational remains (Spyropoulos 1981, pl. 60 c) – this photo, actually, seems to depict the same structures as the one showing the architectural remains by Palaiopyrgi-Vapheio, brought to light in 1982 and published in *Archaologikon Deltion* 1982 (Spyropoulos 1982, 112 pl. 60 a). E. Georgoulaki (Georgoulaki 1988, 379) also mentions this excavation. She adds the information that the habitational structures Spyropoulos excavated are located 500 m southwest from the top of Agia Kyriaki hill, and in n. 2, she refers to personal communication with the excavator Th. Spyropoulos. This places the site in the middle of the area under investigation by the present project.

24 The results of the football field rescue excavation remain unpublished. The present summary of those excavation results is provided by M. Tsouli, Director of the Department of Prehistoric and Classical Antiquities and Museums of the Ephorate of Antiquities of Laconia, according to the Drawing Archive and the Photographic Archive of the Ephorate.

Amykles with Vapheio, Sklavochori, and Agia Kyriaki. These interventions have significantly enriched our knowledge and understanding of the area (Fig. 5, nos. 2). Within the framework of a public infrastructure project for the construction of irrigation channels on the eastern part of the village of Amykles – south of the hill of Agia Kyriaki and near the road leading to the Amykles football field – archaeologists uncovered extensive habitation layers east of the modern settlement. In addition, remains were documented at three locations, including stone wall foundations, a segment of an ancient road, and a grave possibly dating to the Geometric period<sup>25</sup>.

12 During the 1990s and 2000s, several private plots were excavated, all located in the eastern part of modern Amykles. The excavation of Boretos plot, adjacent to the western side of Agia Paraskevi church property, brought to light a number of graves delimited and covered with tiles, containing multiple burials but no associated offerings (Fig. 5, no. 3). In addition, the same excavation uncovered remains of walls of several construction phases, interpreted as structures of domestic context<sup>26</sup>. Excavations at Konidaris plot, south of the Agia Paraskevi church (Fig. 5, no. 4), revealed a cluster of twelve graves dated to the Protogeometric period, representing the most substantial archaeological evidence for the existence of a settlement at Amyklai around the time of its supposed incorporation into the Spartan political community<sup>27</sup>.

13 The excavation of Politis plot, along the road leading to the Amykles football field and conducted by E. Zavvou in 2000, revealed building remains and dense destruction layers (Fig. 5, no. 5)<sup>28</sup>. These layers contained both domestic material – such as plain Roman-period pottery, fragments of storage pithoi, and roof tiles – and elements associated with funerary monuments of the same period, including marble columns and sculptural fragments.

14 The area surrounding the church of Agia Paraskevi was further investigated in 2008 during construction works for the expansion of the cemetery east of the church (Fig. 5, no. 8). Although no remains of the sanctuary of Alexandra/Kassandra and Agamemnon were identified, five walls made of small-sized stones came to light, forming two adjacent rooms of domestic character<sup>29</sup>. Based on the associated pottery, the architectural remains can be dated to the Late Hellenistic or Roman periods.

15 The excavation of Karagounis plot, carried out in 2011 and 2013, provided valuable information regarding habitation of the area in the Archaic period (Fig. 5, no. 7)<sup>30</sup>. This plot yielded remains of an Archaic domestic building, consisting of three adjoining rooms aligned along an east-west axis, one of which featured a floor paved with small, roughly worked stones. The excavation also provided a range of pottery, including late Geometric, early Archaic decorated, fine black-glazed and coarse ware.

16 The extent, density, and chronological range of ancient habitation layers in the areas of Sklavochori and Amykles were further clarified thanks to public works for the replacement of the water supply network. Archaeological surveillance of the project »Replacement of Water Supply Network – Amykles (Sklavochori)«, carried out in 2014, led to the location of 14 ancient sites in the vicinity of Sklavochori. All these sites contained habitation layers and architectural remains dating from Late Antiquity to the Late Byzantine period<sup>31</sup>. An extension of the same project, »Replacement of Water Supply Channels – Amykles«, took place in 2015 in the eastern sector of the modern village of Amykles, leading to the discovery of three sites with building remains dated to

---

25 Raftopoulou 1992.

26 Raftopoulou 1994.

27 Zavvou 1996; Zavvou 1998a.

28 Zavvou 2000, 229.

29 Tsouli 2010, 515 f.

30 Tsouli – Tsiaggouris 2013; Vasilogamvrou – Tsouli 2021.

31 Tsouli – Sarantopoulou (forthcoming).

the Hellenistic and Roman periods. Among these was a stretch of a north-south oriented road, located southwest of the church of Agia Paraskevi (Fig. 5, no. 9)<sup>32</sup>. It is worth noting that trenches opened along both roads leading from the Sparti-Gythio National Road to the church of Agia Paraskevi and subsequently to the village of Vapheio revealed anthropogenic layers with pottery, though no structural remains were detected.

17 The examination of the distribution of ancient remains in excavated plots at the modern villages of Amykles and Sklavochori, along with excavation data concerning their chronology and character, allows for the following conclusions:

18 Apart from minor traces of human presence – such as anthropogenic layers containing pottery – two main zones of ancient habitation can be identified at the village of Amykles. The first is represented by a cluster of excavated plots surrounding the church of Agia Paraskevi. This area includes the earliest archaeological material dated to historical times (e.g. the Protogeometric graves at Konidaris plot), as well as architectural remains and finds spanning from the Archaic to the Roman periods. The second zone comprises a broader area of ancient occupation extending from the Sparti-Gythio National Road in the west to the eastern outskirts of the modern village of Amykles, encompassing the football field further eastwards in cultivated fields beneath the edge of the modern settlement. This zone corresponds to the southern limit of the area surveyed during the 2024 campaign.

## Remote Sensing

19 After defining the general boundaries of the survey area and compiling and analyzing previous archaeological work in the region, preparations for fieldwork began with a comprehensive remote sensing campaign. The primary aim of this preliminary phase was to collect as much analytical data as possible on the surface of the landscape in order to inform both research and logistical planning for the field survey.

20 In September 2023, the Laboratory of Archaeometry at the Department of History, Archaeology and Cultural Heritage Management of the University of the Peloponnese conducted the remote sensing campaign<sup>33</sup>. The remote sensing team employed an integrated methodology combining close-range aerial photogrammetry and three-dimensional laser scanning using Light Detection and Ranging (LiDAR), also referred to as Airborne Laser Scanning (ALS).

21 The remote sensing survey was carried out using an Unmanned Aircraft System (UAS), specifically the DJI Matrice 300 RTK quadcopter, equipped with two payloads: the Zenmuse P1 camera for photogrammetry and the Zenmuse L1 LiDAR sensor. To ensure precise georeferencing of the point cloud data generated by both methods, a Topcon GR-5 GNSS receiver was used to record ground control points across the area, thereby achieving high-accuracy spatial data.

22 This campaign produced two key datasets. The first consisted of dense point clouds generated from the photogrammetric data which was used to create a high-resolution orthomosaic and a Digital Elevation Model (DEM) of the ground surface (Fig. 6). The DEM was subsequently processed to generate a Digital Surface Model (DSM), which was then classified to remove high vegetation and produce a Digital Terrain Model (DTM).

23 The orthophotogrammetric mosaic played a crucial role in providing high-resolution, up-to-date imagery of the surface of the survey area. This allowed the survey team to observe and analyze the landscape with cartographic precision, enabling the

---

32 Tsouli 2016.

33 Remote sensing operations were conducted by V. V. Panagiotidis and A. Kazolias under the direction of N. Zacharias.

---

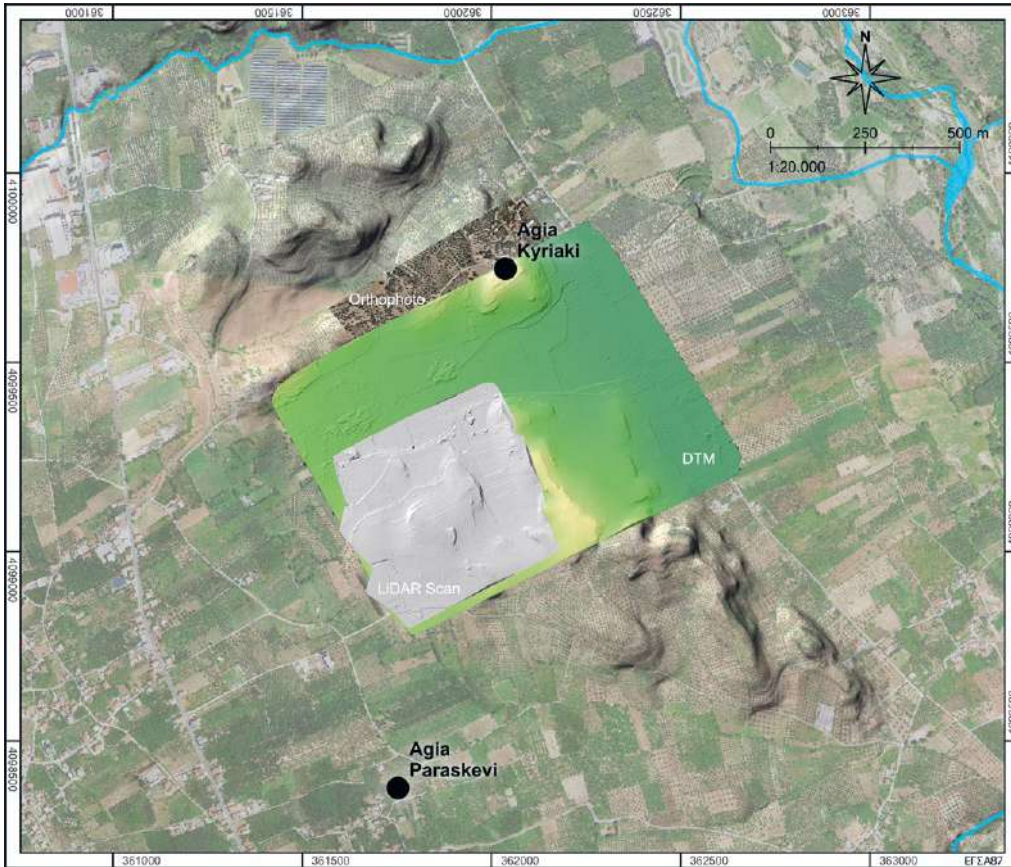


Fig. 6: Amykles. DTM, LiDAR scan, and orthophoto

6

accurate identification of surface features such as field boundaries, path networks, vegetation patterns, and potential anthropogenic anomalies. This imagery greatly enhanced both the efficiency of field planning and the interpretative potential of the survey results. In particular, the ability to examine fine-grained surface details before entering the field enabled the team to make informed decisions about tract selection, walking strategies, and visibility assessments.

24 The DTM proved essential for accurately capturing the orographic morphology of the landscape, offering a refined and interpretable representation of the topographical actuality. By stripping away vegetation and surface irregularities through classification processes, the DTM isolated the underlying terrain, allowing for the extraction of critical spatial information relevant to surface investigation. Among its key outputs was a series of hill-shaded relief maps, which, when combined with a colorized altitude raster and a dense set of contour lines, rendered the topography of the survey area in a highly legible and visually intuitive form. These visualizations enabled the team to assess elevation gradients, slope orientation, and natural barriers with clarity, which was indispensable for the effective design of survey tracts, the calibration of field-walking strategies, and the broader logistical planning of field operations. In a landscape characterized by both subtle and abrupt morphological variation, the DTM offered a level of spatial awareness that would have been difficult to achieve through ground observation alone.

25 While photogrammetry was applied across the entire survey area, LiDAR scanning was deliberately limited to a specific portion. This selective approach was motivated by two main factors. First, LiDAR acquisition and processing are resource-intensive in terms of both time and computation, necessitating a cost-benefit assessment prior to broader implementation, so it was important to evaluate its potential benefits before committing to a full survey. Second, the high intensity of agricultural activity

in the region had raised concerns about surface disturbance which could limit the efficacy of LiDAR data. For these reasons, LiDAR scanning focused on a small plateau in the southwestern section of the survey zone which had been previously identified as having archaeological potential<sup>34</sup>.

26 Despite the limitations imposed by recent and ongoing agricultural activity – particularly the substantial background noise resulting from ground disturbance – the LiDAR survey yielded some useful results. Although it did not reveal any clearly identifiable man-made structures, the data highlighted several anomalous bedrock cuttings on the eastern slope of the plateau. These features correspond to those recorded in earlier scholarship and were subsequently examined more closely during the pedestrian phase of the survey<sup>35</sup>. Although the LiDAR survey did not produce the broad-scale results often expected from this technology, it nonetheless proved valuable in identifying some targeted features of potential archaeological relevance, even in a context of considerable environmental noise.

## Archaeological Survey: Methodology and Fieldwork Planning

27 In contrast to the results of LiDAR, photogrammetry and DEM datasets proved to be substantially useful in both surface analysis and planning the field survey. The integration of these data with GIS platforms allowed for a detailed assessment of the survey area. Military maps by Γ.Υ.Σ. were also incorporated into the analysis to further refine the understanding of the boundaries and surface features (Fig. 7).

### Division of Land

28 In order to ensure a controlled and replicable method of data collection across the varied terrain of the survey zone, the area under investigation was systematically divided into ›tracts‹ and ›squares‹ (Fig. 8)<sup>36</sup>.

29 This grid-based subdivision was designed to accommodate both the topographical complexity of the region and the specific research objectives of the project. Each tract represents a broader, topographically or functionally coherent portion of the landscape, while the squares – smaller units within the tracts – served as the primary contexts for intensive survey, recording, and collection activities. This approach not only facilitated a clear spatial framework for documenting archaeological visibility and artifact density, but also allowed for the integration of systematic and non-systematic survey strategies. The following sections present the organization of this spatial structure.

30 With the help of the datasets described above, the survey area was divided into tracts based on three primary criteria:

1. Surface visibility,
2. Current field boundaries,
3. Orography and terrain morphology.

---

34 In May 2025, further photogrammetry and LiDAR acquisition over the whole survey area was carried out by the topographers of the École française d'Athènes (L. Fadin and B. Guillaume), employing a drone DJI Matrice 300 RTK quadcopter equipped with a DJI Zenmuse L2 LiDAR sensor, combined with a 4/3 RVBCMOS camera. Its results are being processed at the time of submission of this paper. A preliminary report will be published in the BAEFE (Bulletin Archéologique des Écoles françaises à l'Étranger).

35 Banou 1996, plan 3; see also below § 74 and 102.

36 The general methodology of the present project was in part modeled on both the Sikyon Regional and Urban Survey Projects, see Lolos 2011; Lolos 2021; and in particular Stewart 2021. A particularly useful resource was the Sikyon Survey Project Data available on Zenodo at the following link <<https://zenodo.org/records/1054450>> (01/07/2026) on which we based our recording system.

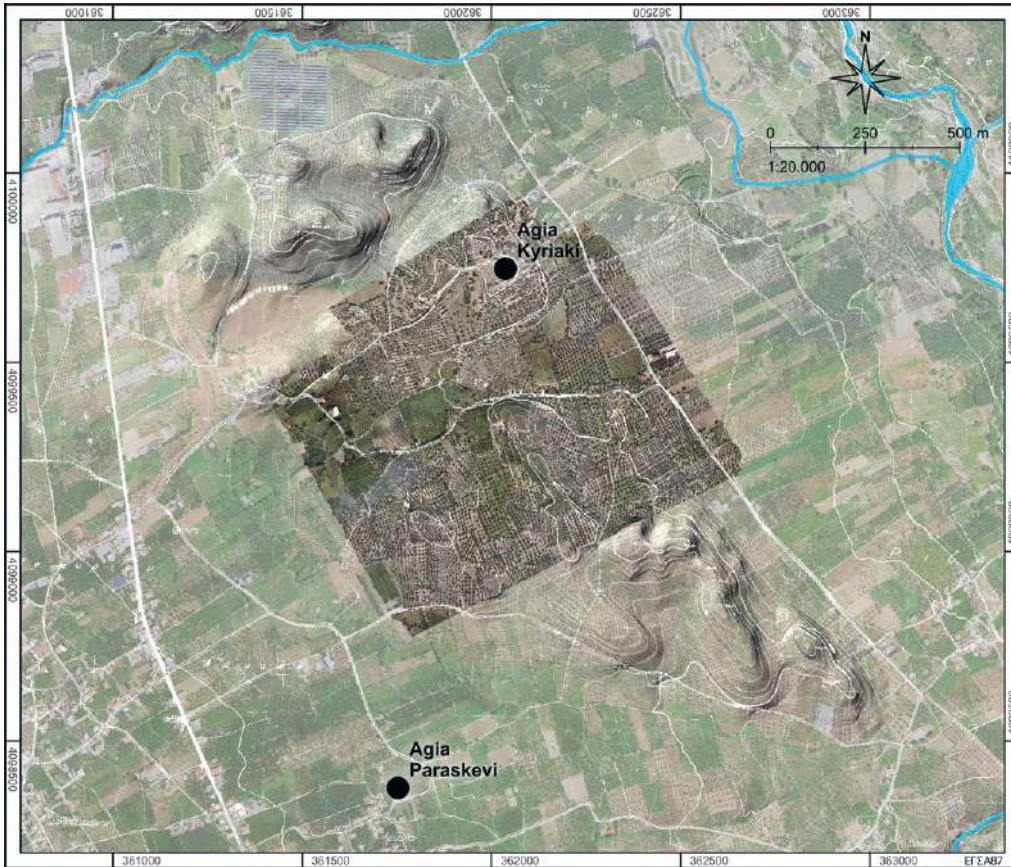


Fig. 7: Amykles. Based on the Γ.Υ.Σ. 1 : 5000 topographical map

7

31 The visibility of the surface was the most crucial factor in determining the boundaries of each tract, as areas that were obscured by dense vegetation, tall grass, or modern buildings would be less suitable for an effective intensive surface survey.

32 The second criterion for determining tract boundaries was the alignment with existing field boundaries. These boundaries were particularly important in areas of intensive human activity, such as agriculture, where fields and plots are often demarcated for farming purposes. In many instances, visibility and field boundaries coincided, allowing for a straightforward division of the area into manageable sections for the field team.

33 The third factor, orography and terrain morphology, was also considered in the division of the survey area. Steep slopes or areas with significant elevation changes were often treated as distinct tracts, even if they were part of larger fields. This division helped to account for the more difficult terrain and allowed for easier access and navigation for the field survey teams. In cases where fields had both flat and sloped areas, tracts were subdivided accordingly to ensure a more efficient survey process.

34 The primary aim of the tract division was to identify areas that were most likely to yield archaeological findings, while also factoring in the accessibility of the land. Areas with poor visibility or difficult terrain were designated for non-systematic surveying, while the more promising fields were earmarked for systematic investigation. This strategy helped to streamline the fieldwork and ensured that the team would focus their efforts on areas with the highest archaeological potential.

35 This strategic division of the survey area would not have been possible without the high-quality data provided by the photogrammetry and DEM. The orthophotography allowed for a detailed visual representation of the land, including features such as field boundaries, land use patterns, and surface disturbances. The military Γ.Υ.Σ. maps provided additional context, particularly for interpreting features that were not



Fig. 8: Amykles. Image of subdivided survey area

8

clearly visible in the aerial imagery, such as irrigation channels or ditches. By combining these datasets, the field survey team was able to gain a much deeper understanding of the land before setting foot on the ground.

36 The next step in the planning process involved dividing the identified tracts into smaller survey units, which were designated as squares. Each square measured approximately  $20 \times 20$  m, providing enough space for the team to systematically walk the area and collect material. The decision to use  $20 \times 20$  m squares was based on several considerations. First, the size of the squares allowed for the efficient division of larger tracts, ensuring that the survey could be completed within the timeframe available. Second, this square size was practical for the number of surveyors on the team, which varied between three to four individuals per team.

37 The division of tracts into squares was dictated by practical factors. First, the maximum number of fieldworkers that could be mobilized was 15, so the team was divided into three groups of four surveyors, and one group consisting of three surveyors. The three-person team was responsible for the preliminary inspection of each tract in order to assess its visibility and suitability for a systematic survey. Once the tract was deemed suitable, the team would lay out the  $20 \times 20$  m squares and prepare them for further survey. The remaining survey teams would then systematically walk through the squares, collecting material as they went (Fig. 9).

38 The layout of the squares within each tract was determined by the practical considerations of the fieldwork. The squares were not aligned according to cardinal directions but were arranged to ensure that they fit within the natural boundaries of the tracts and avoided obstacles such as dense vegetation, steep slopes, or modern buildings. The integration of DEM and orthophotography proved invaluable in this process, allowing the survey team to make precise decisions about where to place the squares and how to orient them in the field.

39 This survey was designed as a single-season four-week project hence it was key to target those plots and areas that could prove most relevant to contextualize the Amyklaion. Among the tracts with the best surface visibility, two areas were selected for systematic coverage: the zone immediately south of the Amyklaion, and a small plateau further south, in the direction of the modern football field. On the eastern slope of this plateau, the LiDAR scan revealed openings in the same position where E. Banou had previously recorded possible Mycenaean tombs<sup>37</sup>. Furthermore, the plateau is in direct spatial proximity to the Amyklaion. From its summit, the sanctuary is clearly visible, establishing a strong visual and topographic connection between the two spots.



9

### Field-Walking Methodology and Collection Strategy

40 The overall structure of the survey and its recording system were designed to maximize efficiency and ensure that the survey team could collect data in a systematic manner with ease and speed. While some areas were clearly suitable for detailed inspection and systematic survey, others were less accessible or contained features that made systematic walking difficult. For these areas, we employed a non-systematic survey approach, where surveyors walked through the area without a specific pattern, documenting any significant findings as they encountered them. Even in areas that were not fully suitable for systematic surveying, the surveyors recorded major surface features, such as pottery fragments, architectural remains, and other noteworthy items.

41 The non-systematic survey proved particularly useful in areas where visibility was poor, or where the terrain made systematic walking difficult. In these areas, surveyors recorded significant surface features, including isolated architectural elements, large stones, and other potentially significant finds and structures<sup>38</sup>. While these features were often difficult to interpret in the field, they provided important clues about the historical use of the area.

42 The whole area was surveyed non-systematically recording tract information and special features (SF). Certain tracts and squares were singled out for systematic survey based on visibility criteria. While a team surveyed non-systematically, other teams started field-walking systematically.

43 As the field survey progressed, it became clear that the volume of material being collected was substantial, particularly in areas with fresh plowing or other disturbances to the soil. Initially, the strategy for material collection was set at 100%, meaning that all archaeological material, including non-diagnostic pottery, was to be collected. However, as the survey continued, the team found that such a total-collection approach led to an overwhelming amount of material, making it difficult to process and analyze efficiently afterwards in the storage.

44 In consultation with the Ephorate of Antiquities of Laconia we decided to adjust the material collection strategy. From the second week onwards, non-diagnostic roof tiles were only collected at a rate of 50%, while diagnostic material, i.e. pottery (fine and coarse), diagnostic roof tiles as well as all other finds were still collected in full. This adjustment helped streamline both the collection and analysis processes, allowing the team to concentrate on more meaningful finds without being overwhelmed by less

Fig. 9: Amykles. Survey team in action

37 See above § 26 as well as § 74 and § 102 below.

38 See below § 106–112.

significant material. At the same time, it mitigated potential logistical challenges related to the medium- and long-term storage of the recovered artifacts. In addition, leaving the 50% of non-diagnostic roof tiles on the ground complied with the guidance provided by the Ephorate of Antiquities of Laconia, collaborator of the Survey Project, of preserving the archaeological deposit from the surface without altering the historical nature of the area. Although changing the collection strategy in due course may appear disruptive, it was in fact implemented smoothly, as after two weeks of fieldwork, team members had become confident in identifying surface materials and could distinguish effectively between diagnostic and non-diagnostic finds.

## Finds Processing and Material Documentation

45 After field collection, all recovered artifacts were transported to a storage facility made available by the Ephorate of Antiquities of Laconia. There, the material underwent a standardized processing sequence. All items were carefully washed,



10

Fig. 10: Amykles. Material processing

weighed, counted, and sorted according to category and material type (Fig. 10). While the entire assemblage was systematically organized, only a selection of diagnostic pieces underwent preliminary analysis aimed at assessing typology and chronological attribution. A full reading of the entire collection was not possible during this phase due to time constraints and the volume of material; a dedicated study season to complete the task is planned in future campaigns.

46 Comprehensive documentation followed: all diagnostic artifacts were photographed under consistent lighting conditions, and the most significant among them were selected for formal cataloging. Cataloged finds were photographed individually and drawn to scale by Y. Na-

kas, ensuring accurate visual records of their morphological characteristics. Finally, the material was appropriately packaged and labeled to guarantee both its preservation and traceability.

47 All recorded data were then entered into a digital database specifically developed for custom integration with the GIS platform of the project. This integration allows for spatial querying and layered visualization of artifact distributions in direct relation to other survey datasets, thereby enhancing the potential for spatial analysis and supporting the long-term continuity of research and interpretation.

## Geophysics: Methods and Results

### Methods

48 Geophysical measurements were carried out to investigate the subsurface conditions within the survey area. Due to its considerable extent – approximately 684 000 m<sup>2</sup>, too large to be fully covered in ten working days — and the presence of dense vegetation, geophysical measurements focused on specific sectors considered most accessible and relevant. Since little was known about the nature of the archaeological remains potentially present below surface, we employed several geophysical methods to assess their suitability for the survey area. These included magnetometry, Ground-Penetrating Radar (GPR), Electromagnetic Induction (EMI), and Electrical Re-

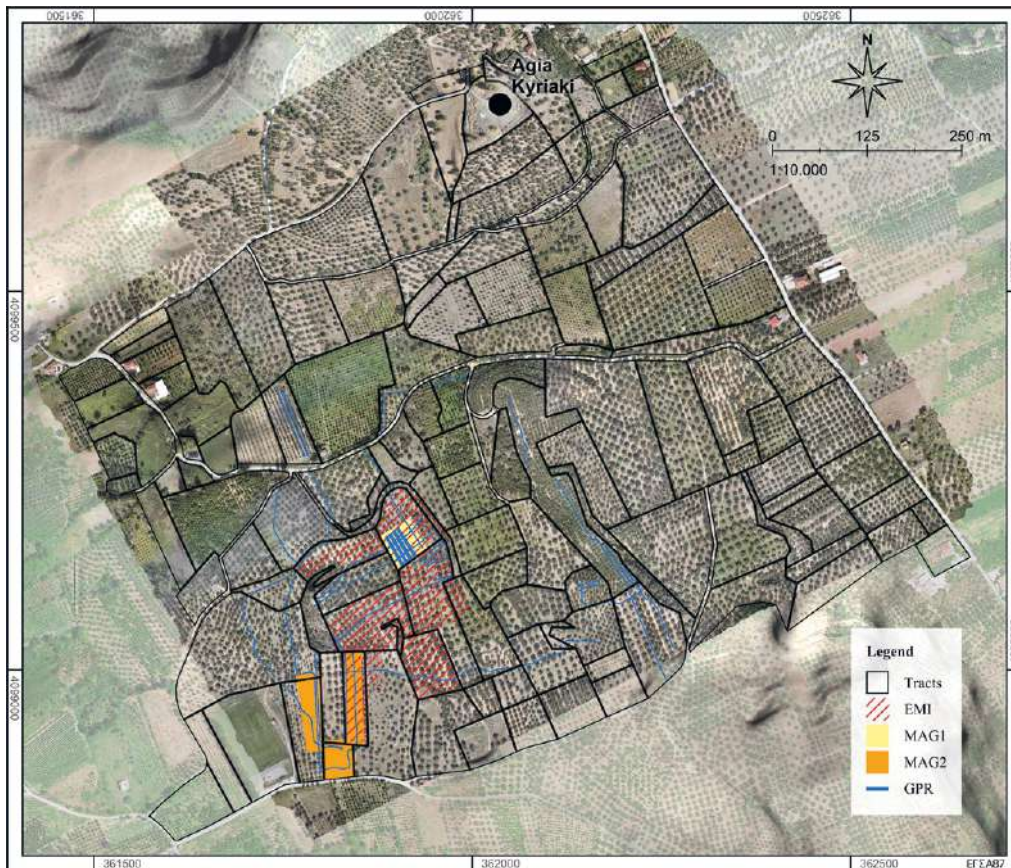


Fig. 11: Amykles. Overview of geophysical measurements

11

sistivity Tomography (ERT) – techniques commonly used to image ancient settlement structures in the Mediterranean region (Fig. 11)<sup>39</sup>.

49 Magnetic measurements were conducted in two sectors: one (referred to as MAG1) in the center of the survey area, covering 2000 m<sup>2</sup>, and another (referred to as MAG2) east of the Amykles football field, covering 8000 m<sup>2</sup>. For both sectors, a cesium total-field magnetometer (G-864 from Geometrics) was employed, which was equipped with two vertically arranged sensors. They were mounted at heights of 40 cm and 110 cm above ground level, and the (pseudo-)gradient of the magnetic field was calculated by subtracting the readings of the upper sensor from those of the lower sensor.

50 In olive groves, both the measurement progress and sampling density were lower than in open fields; nevertheless, trees did not affect the quality of the collected data which remained high. The nominal profile spacing was 50 cm, with an inline sampling interval of approximately 10 cm. Temporal variations of the magnetic field were recorded at a base station using a proton precession magnetometer (G-857 from Geometrics) for diurnal correction. Data processing was performed using in-house software developed in the computing environment MATLAB.

51 For GPR measurements, we used a dual-frequency antenna (300/800 MHz) in combination with a SIR-4000 console by GSSI Inc. Initially, we performed measurements in a random walk pattern to gain an overview and assess the penetration depth of the method across different parts of the survey area. The resulting profiles had a total length of about 3700 m. Following this initial phase, we surveyed three smaller portions of particular interest – ranging from 140 m<sup>2</sup> to 2000 m<sup>2</sup> – with densely spaced, parallel profiles. This approach enabled 3D data analysis and the generation of horizontal depth slices. GPR data were processed with ReflexW software. The processing workflow

39 Vella – Sarris 2022; Sarris – Jones 2000.



12

Fig. 12: Amykles. EMI measurements with the CMD Mini Explorer

included time-zero correction, background removal, amplitude gain adjustment, frequency filtering, and migration.

52 The EMI method was selected for its speed and efficiency in measuring subsurface electrical conductivity (EC), making it particularly well suited for archaeological prospection in large areas. To implement EMI survey, we used a multi-coil instrument (CMD Mini Explorer from GF Instruments) which operates at a frequency of 30 kHz and includes three coil spacings (Fig. 12). The instrument outputs measurement results for each coil as apparent electrical conductivities (ECa) and inphase values<sup>40</sup>. The EMI survey covered approximately 3 ha, with a profile spacing of 1 m, unless dense vegetation demanded locally wider intervals. Most measurements ran in horizontal-coplanar (HCP) mode, offering greater

penetration depth than the vertical-coplanar (VCP) setup. Areas under active irrigation – aside from drip systems – remained unsurveyed, as irrigation risked distorting conductivity readings.

53 Magnetic susceptibility of topsoil and objects was measured with a handheld susceptometer (SM30 by GF Instruments), offering a resolution of  $1 \times 10^{-7}$ . In addition, electrical resistivity tomography (ERT) was applied along a single profile, using a 48-electrode switch device (IRIS Instruments) with 25 cm electrode spacing. Within the scope of this article, the results of these measurements do not add relevant information, therefore they will not be discussed further.

## Results

### Magnetometry

54 The magnetic anomaly maps acquired in sectors MAG1 and MAG2 show marked differences in both density and character of the anomalies. Sector MAG1 contains a dense concentration of magnetic anomalies (Fig. 13). The majority of them is dipolar and shows intensities below 20 nT, while only a few exceed 50 nT; the highest recorded value exceeds 300 nT. Some of the smaller anomalies likely result from sherds, tiles, or waste material present in the topsoil. In contrast, larger anomalies appear to originate from magnetized objects at greater depths or from subsurface features such as pits. These include broad dipolar signatures and predominantly positive anomalies, mostly concentrated in the western part of MAG1. While the northeastern half of the map shows dipolar anomalies against a magnetically quiet background ( $< 1$  nT), the southwestern sector displays a denser and more complex pattern of magnetic signals.

55 The anomaly map of sector MAG2 reveals three main zones – northern, central, and southern – different from one another in the distribution, morphology, and intensity of the anomalies (Fig. 14). Both the northern and southern sectors appear free of prominent magnetic anomalies. While the northern sector remains largely clean, the southern part shows numerous small-scale, poorly sorted anomalies, likely caused by the abundant presence of surface sherds. By contrast, the central sector yields the most compelling results, exhibiting a dense and diverse set of anomalies, partially bounded by linear features to the north and south. This arrangement suggests deliberate spatial organization, possibly indicating settlement activity.

56 Two striking positive anomalies (Fig. 14 A), with high values ( $> 50$  nT) and an extent of more than 2 m, are located in the eastern part. Given their large intensity and size they are presumably caused by a large volume of magnetized material, suggesting burnt deposits or kilns.

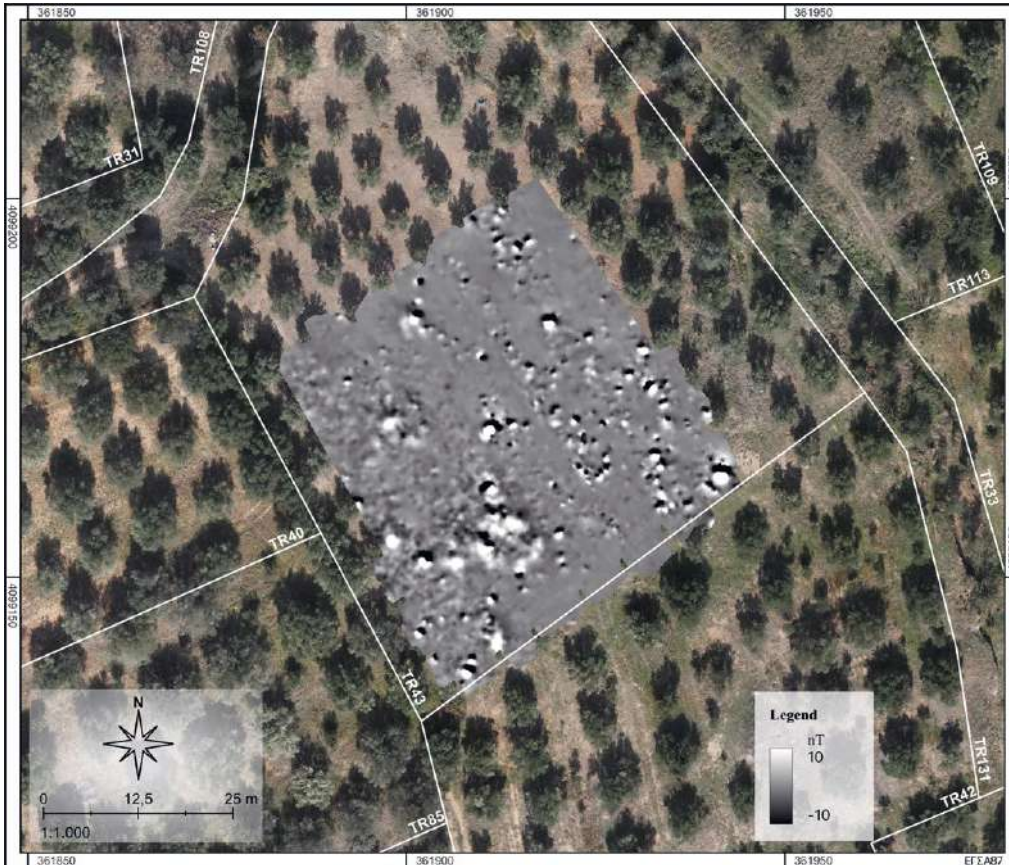


Fig. 13: Amykles. Magnetic anomaly map of sector MAG1

13

57 In the northeast of sector MAG2, a linear magnetic anomaly oriented east-west (Fig. 14 B) corresponds to the alignment of a mudbrick wall, whose traces were clearly visible in the adjacent field to the west (Tract 88). This correspondence confirms the suitability of magnetic prospection for detecting such architectural features.

58 In the western part, four prominent anomalies (Fig. 14 C) show large negative values, and can be safely attributed to modern metallic irrigation systems. Overall, the magnetic data from sector MAG2 provide compelling evidence of anthropogenic activity.

### GPR (Ground Penetrating Radar)

59 The penetration depth of the GPR was generally low, ranging from a few centimeters to approximately one meter. In most areas, it only captured the thickness of the topsoil layer, as the underlying bedrock was highly conductive. However, diffractions caused by tree roots appeared locally in the bedrock down to a depth of about 50 cm. In some places, GPR detected signals from below the topsoil – particularly where the bedrock consisted of conglomerate or where different material was present in or above it. This was especially the case in specific locations within MAG2, where the presence of such material coincided with zones of magnetic anomalies.

60 An illustrative example of this type of correspondence is the east-west linear magnetic anomaly mentioned above (Fig. 14 B). This feature was investigated through a dedicated GPR survey (designated as sector GPR4), consisting of parallel profiles spaced 30 cm apart. The resulting depth slice reveals a distinct reflective feature at approximately 0.5 m depth (Fig. 15). This reflection, which occurs precisely at the location of the magnetic anomaly, was almost certainly caused by the same structure – likely the mudbrick wall visible in Tract 88. The GPR results thus support the occurrence of a wall at this location and provide additional insight into its depth and characteristics.

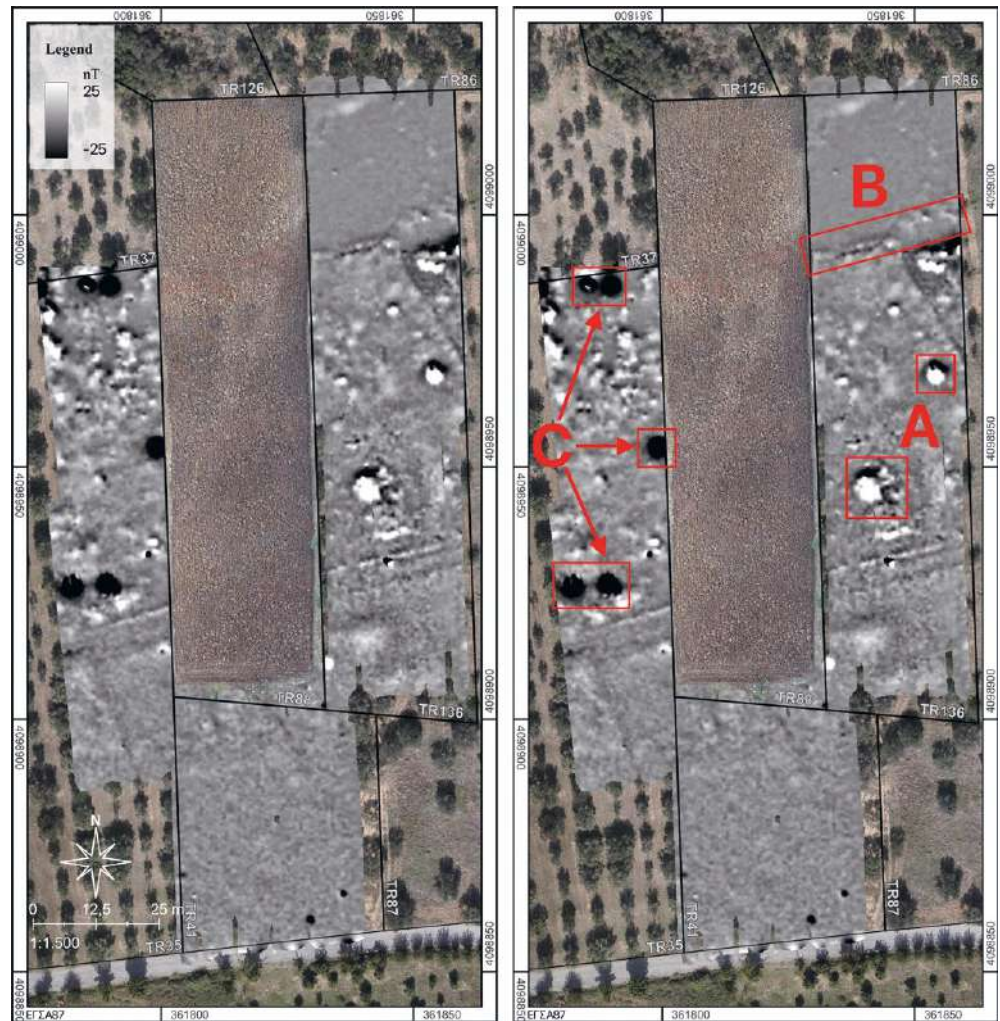


Fig. 14: Amykles. Magnetic anomaly map of sector MAG2

14

61 GPR reflections from subsurface structures with potential archaeological relevance are also visible at several other locations across the survey area. In sector MAG1, e.g., GPR data reveal anomalies that likely indicate heterogeneities, voids, or fractures within the conglomerate bedrock (Fig. 16). Although these reflections may prove archaeologically significant, it remains difficult at this stage to determine whether they are of natural origin or the result of human activity. Only denser GPR measurements could help clarify their extent and geometry. Despite the exploratory nature of the current GPR campaign – which was primarily designed as a test and does not yet yield high-resolution results – the profiles still offer valuable indications to guide and refine future investigations.

#### EMI (Electromagnetic Induction)

62 Electrical conductivity measurements were carried out in the southern part of the survey area, particularly around sector MAG1 and east of the Amykles football field. ECa (Electrical Conductivity apparent) values in this zone vary considerably, ranging from 4–70 mS/m (Fig. 17). While these values are primarily governed by underlying geological conditions, small-scale variations may also result from human activity, such as remnants of buildings or ditches. Very low ECa values often occurred in places with hard conglomerate rock in the ground, whereas very high values – such as those found in the northernmost sector – may indicate the presence of Pliocene marl, already identified as highly conductive during geophysical investigations at the Amyklaion<sup>41</sup>.

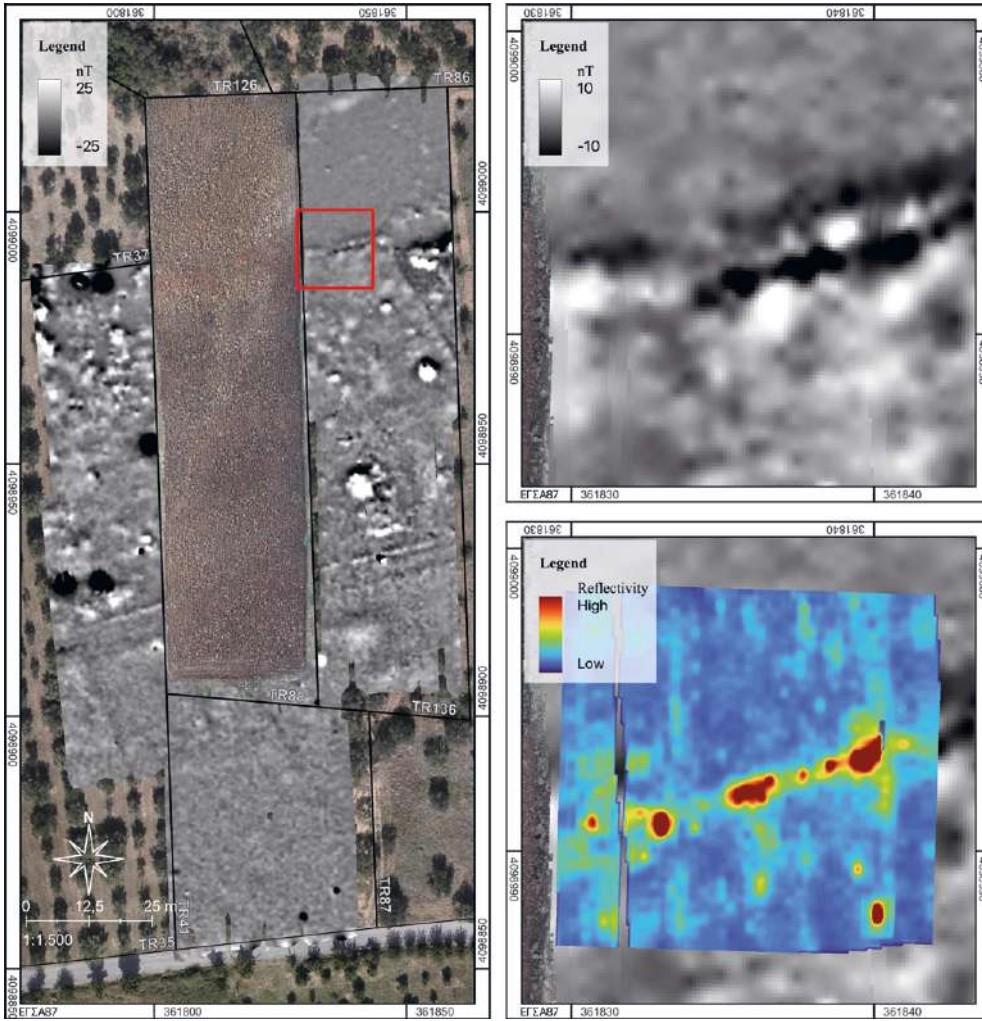
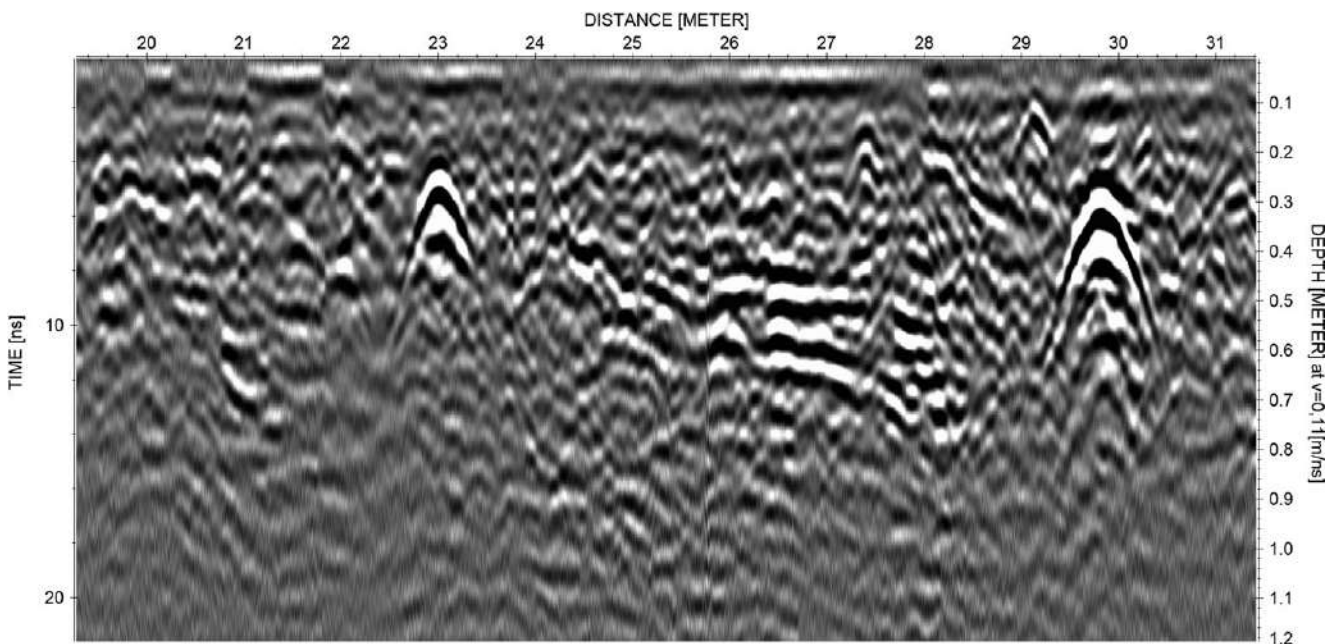


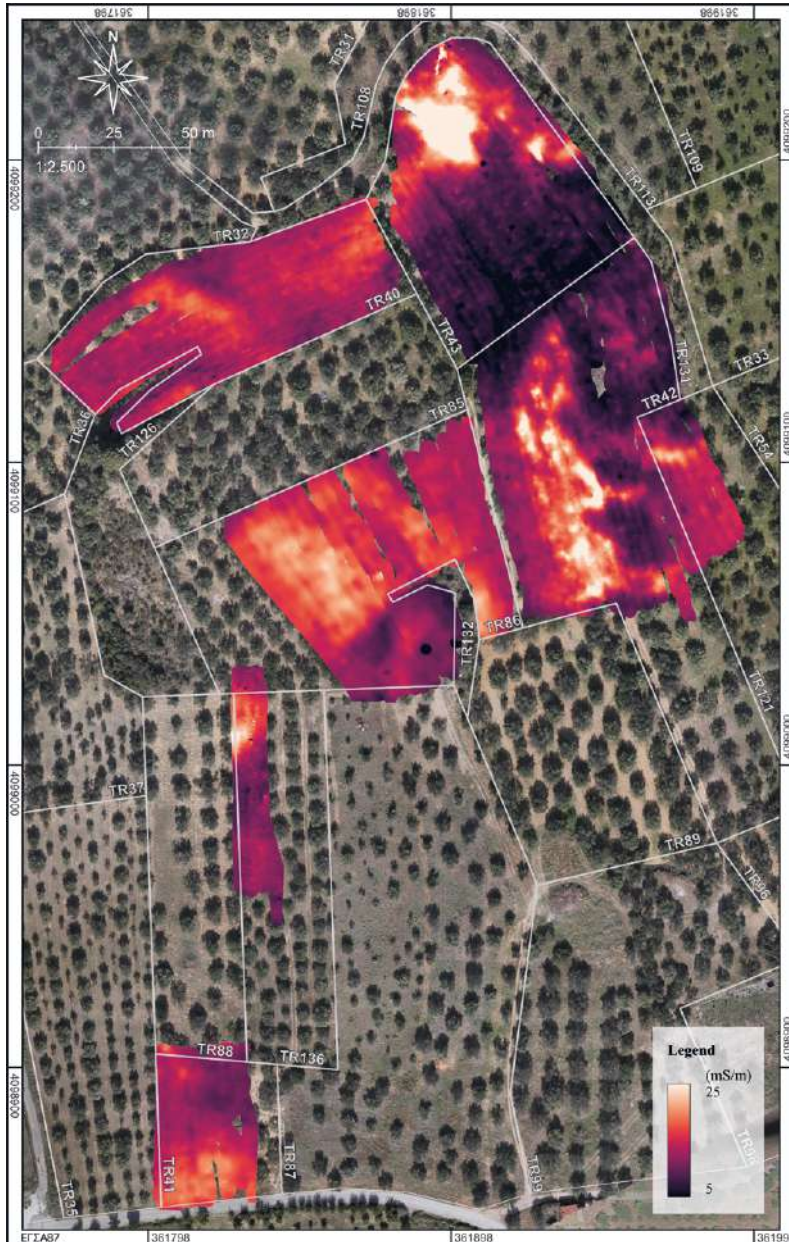
Fig. 15: Amykles. Results of measurements in sector GPR4. Left: Location of the sector (red square); top right: magnetic anomaly map; bottom right: GPR depth slice at 9 ns (50 cm depth)

Fig. 16: Amykles. GPR profile no. 005 showing strong reflections

15



16



17

Fig. 17: Amykles. ECa values from measurements with coil spacing 0.71 m and HCP mode

63 In addition, the EMI survey also detected smaller-scale conductivity variations over distances of 2–10 m. These features are unlikely to be purely natural and may reflect anthropogenic modifications of the subsurface, possibly related to construction, agricultural activity, or infrastructure. However, until further measurements provide additional data, no correlation can yet be established between magnetic anomalies and conductivity values.

64 From a methodological perspective, the geophysical results indicate that magnetic measurements are particularly well suited for prospection in this area. Although GPR did not independently yield data from which subsurface features could be easily identified, it proved valuable in complementing the magnetic results by providing additional information – such as the depth of structures already detected through magnetometry. The EMI method may have registered signals related to anthropogenic features, but its main outcome was the mapping of electrical conductivity, which primarily contributes to inform about the geological conditions of the area.

65 The most significant information from the magnetic measurements was obtained in sector MAG2, around Tract 88. The results reveal an area with a high density of anomalies, enclosed by linear features. A linear anomaly along the southern margin may correspond to a pathway, while one at the northern edge likely indicates a mudbrick wall. This northern structure was also captured by both GPR, strengthening its interpretation.

66 The geophysical results from sector MAG1 are less readily interpretable than those from MAG2, although they may still indicate traces of human activity that require further investigation. The same applies to many other anomalies detected across the survey area, particularly in the GPR and EMI datasets.

## Field Survey Results

67 The principal results from the 2024 season, though still preliminary, can be summarized into two primary sections: one focusing on the systematic survey results and the other on the non-systematic survey results.

## Results of the Systematic Survey

### Area South of the Amyklaion

68 In the systematic survey of the area south of the Amyklaion, the initial objective was to conduct detailed surface mapping and collection, with particular attention to architectural remains, ceramic fragments, and other archaeological indicators. The aim was to better understand the spatial dynamics of the sanctuary by investigating the terrain immediately surrounding it.

69 The survey began on the southern slopes of the hill of Agia Kyriaki and progressed gradually westwards and southwards, with the goal of measuring artifact density and typology in order to assess the scale, nature, and distribution of ancient activity in the vicinity of the sanctuary. However, as the team reached the lower southern foothills, the research strategy had to be adjusted. Many of the tracts to the south of the sanctuary offered scarce surface visibility, and after systematically surveying those directly adjacent to the sanctuary, our progress was further impeded by the presence of a farmer spraying vaporized pesticides – rendering several fields inaccessible for the remainder of the season due to safety concerns.

70 This situation prompted a reassessment of priorities. The team redirected its efforts toward a smaller plateau located in the southwestern portion of the survey zone, roughly halfway between the churches of Agia Kyriaki and Agia Paraskevi. This area is described in more detail in the following section.

71 Despite the practical challenges, the data collected from this portion of the survey south of the hill of Agia Kyriaki allow for some preliminary observations. Artifact density was moderate, though not exceptional (Fig. 18). This may be partly attributed to visibility conditions, which, while generally adequate, were not optimal across the surveyed tracts. The typology and overall quality of the material point to substantial human activity near the sanctuary, but the evidence does not clearly suggest a dominant functional character. It is even possible that some of the surface material was displaced from the sanctuary itself, especially in fields directly bordering the site to the south. This hypothesis is supported by the recovery of architectural fragments that appear consistent with those from the sanctuary complex<sup>42</sup>.

72 Further fieldwork will be necessary to refine our interpretation of this context. A return to this area is planned, with the goal of collecting additional data through systematic surface survey under more favorable conditions.

### The Plateau Area (Tracts 42, 43, 86, 131)

73 Prompted by pesticide use in the fields south of the Amyklaion, the team redirected its efforts to a smaller plateau located in the southwestern sector of the survey zone. This area presented several advantages: it offered decent surface visibility, a direct line of sight to the sanctuary, and topographical conditions favorable to intensive surface investigation.

74 The decision to focus on this location was further supported by prior LiDAR analysis, which had revealed a number of anomalies on the eastern slope of the plateau (Fig. 19). These features – possibly rock-cut formations – align with observations made by Banou, who previously identified similar cuts in the area as potential Mycenaean tombs<sup>43</sup>. The plateau itself, along with several adjacent fields with good visibility, was subjected to both systematic surface collection and geophysical investigation.

---

42 See below § 97–112.

43 Banou 1996, plan 3. For Mycenaean tombs observed in the area, see above § 26 and § 39, as well as § 102 below.



Fig. 18: Amykles. Artifact density map

18

75 Although no standing architectural remains were visible on the surface, the material retrieved – comprising ceramic fragments, fragments of Middle Helladic mudstone temper pithoi, and numerous roof tile pieces including black and red-glazed ones (Fig. 20 a–d) – suggests a notable degree of past human activity ranging from the Middle Helladic (Fig. 20 e. f) to the Roman periods.

76 A fragment of plaster with reed marks (Fig. 21 a) may attest to some sort of modest building, in conjunction with fired clay brick, either possibly used in buildings and/or as kiln stand (Fig. 21 b). Production might also be suggested by a piece of pottery waster (Fig. 21 c). A fragment of a millstone might provide evidence for food processing (Fig. 21 d).

77 Not only food processing but also consumption is well attested in this spot, given the presence of a considerable amount of fine plain ware pottery fragments (Fig. 21 e. f). Establishing a more precise chronology for this fine ware material than Hellenistic to Roman is rather hard until the material gets fully processed and studied.

78 In addition to surface material, the geophysical survey identified a number of potentially significant subsurface anomalies (MAG1). Although the precise nature and function of these features remain to be further analyzed, the convergence of surface finds and geophysical data indicates the archaeological potential of this area. Further analysis of the geophysical results, combined with future fieldwork, will be necessary to clarify both character and chronology of the human presence on this plateau.

79 However, the density of material on the area of the plateau was remarkable but not as massive as in other tracts, as described below (see Fig. 18).

#### Plowed Field (Tract 88)

80 As the area around the plateau toward southeast and the modern football field of Amykles was under non-systematic inspection, the team encountered the most



Fig. 19: Amykles. Cross-section profiles of the openings to the east of the plateau, as recorded by the LiDAR

19

surprising find of this campaign. It was a field (Tract 88) that had been freshly plowed to a considerable depth (Fig. 22). From the orthophotography taken in September 2023, we could see that prior to plowing, the field was an olive grove, from which trees have been removed for replanting.

81 The quantity and quality of material emerging from the clumps of overturned soil were so remarkable that the area quickly became the central focus of our systematic investigation for the remainder of the season. In addition to destroyed mudbrick walls, fragments of mortar, and striking concentrations of ceramics, remains of ancient graves, and numerous individual finds were found there, ranging chronologically from the Middle Helladic period to Late Antiquity. The finds and features in this tract are not being processed as part of the survey project, but will be further analyzed by the Ephorate of Antiquities of Laconia after rescue excavations<sup>44</sup>.

82 Using this plowed field as a new focal point, we began to survey the surrounding tracts, and the results proved to be notably substantial. In particular, we found evidence of human activity from a variety of periods, ranging chronologically from the Middle Helladic period to Late Antiquity, as expounded next.

#### Area North and East of the Amykles Football Field

83 What stood out this year was the area around Tract 88, corresponding to the north and east of the Amykles football field, in which rescue excavations by the Ephorate had already yielded substantial evidence of past human activity<sup>45</sup>. In this area, several other freshly plowed fields produced abundant material, corroborating the im-

44 Excavation by the Ephorate began in June 2025.

45 See above § 10.

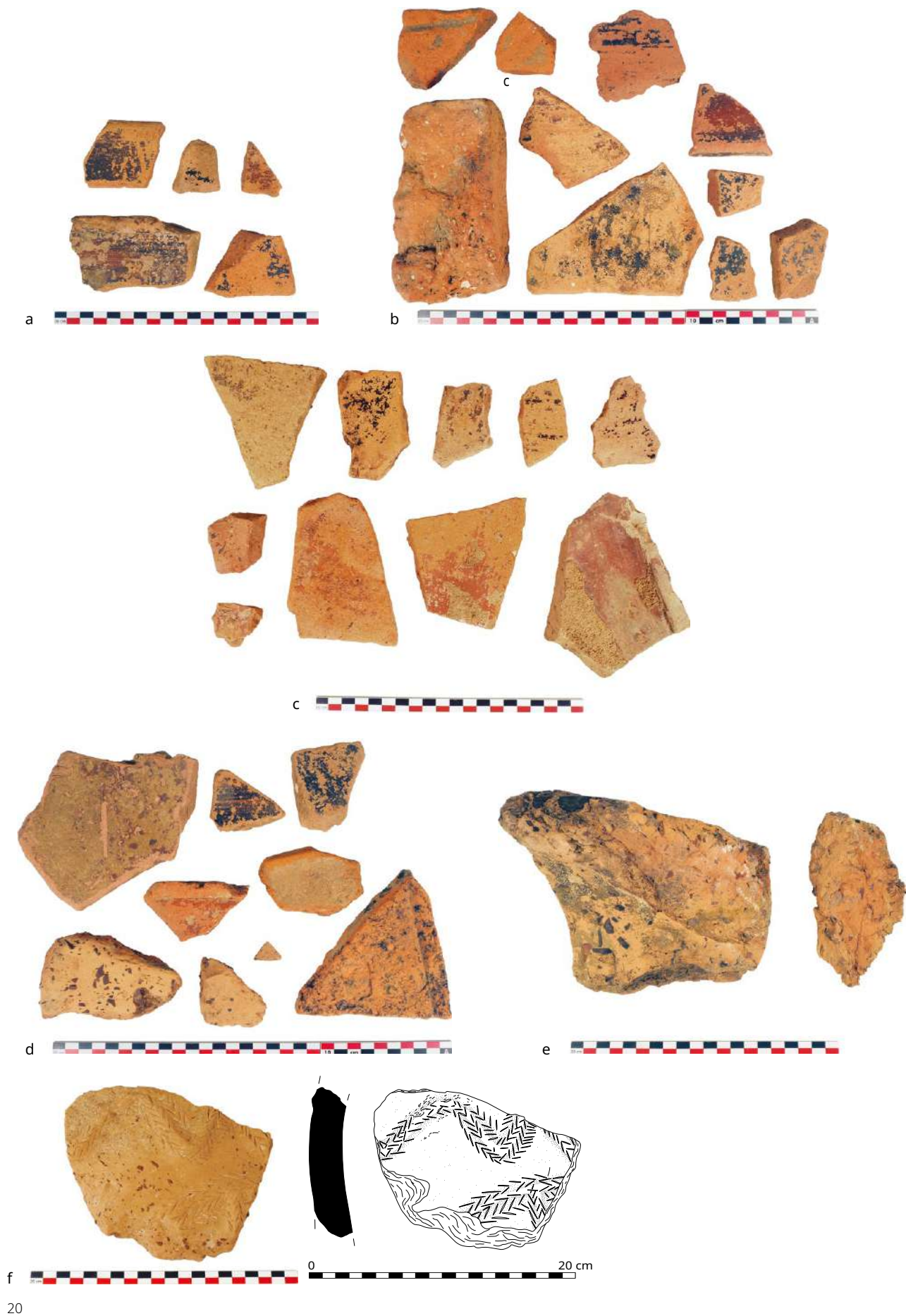


Fig. 20: Amykles. a-d) Black and red-glazed roof tiles (Tract 43); e) Mudstone temper pithos rim (Tract 43); f) Mudstone temper pithos wall with zig-zag motif decoration (Tract 131)

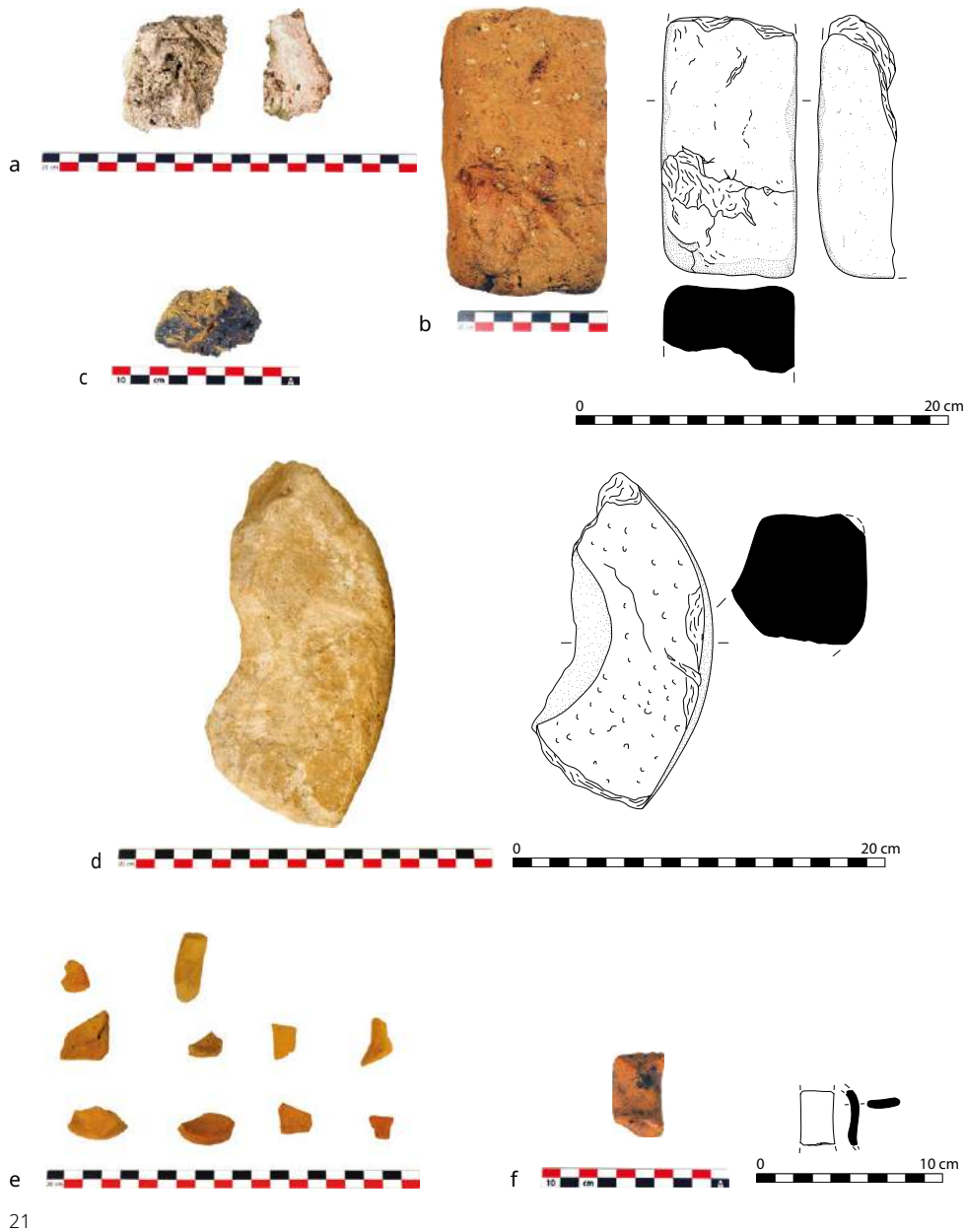


Fig. 21: Amykles. a) Plaster with reed marks (Tract 42); b) Bricks/ kiln stand (Tract 43); c) Pottery waster (Tract 42); d) Millstone (Tract 42); e. f) Fine plain ware (Tract 86)

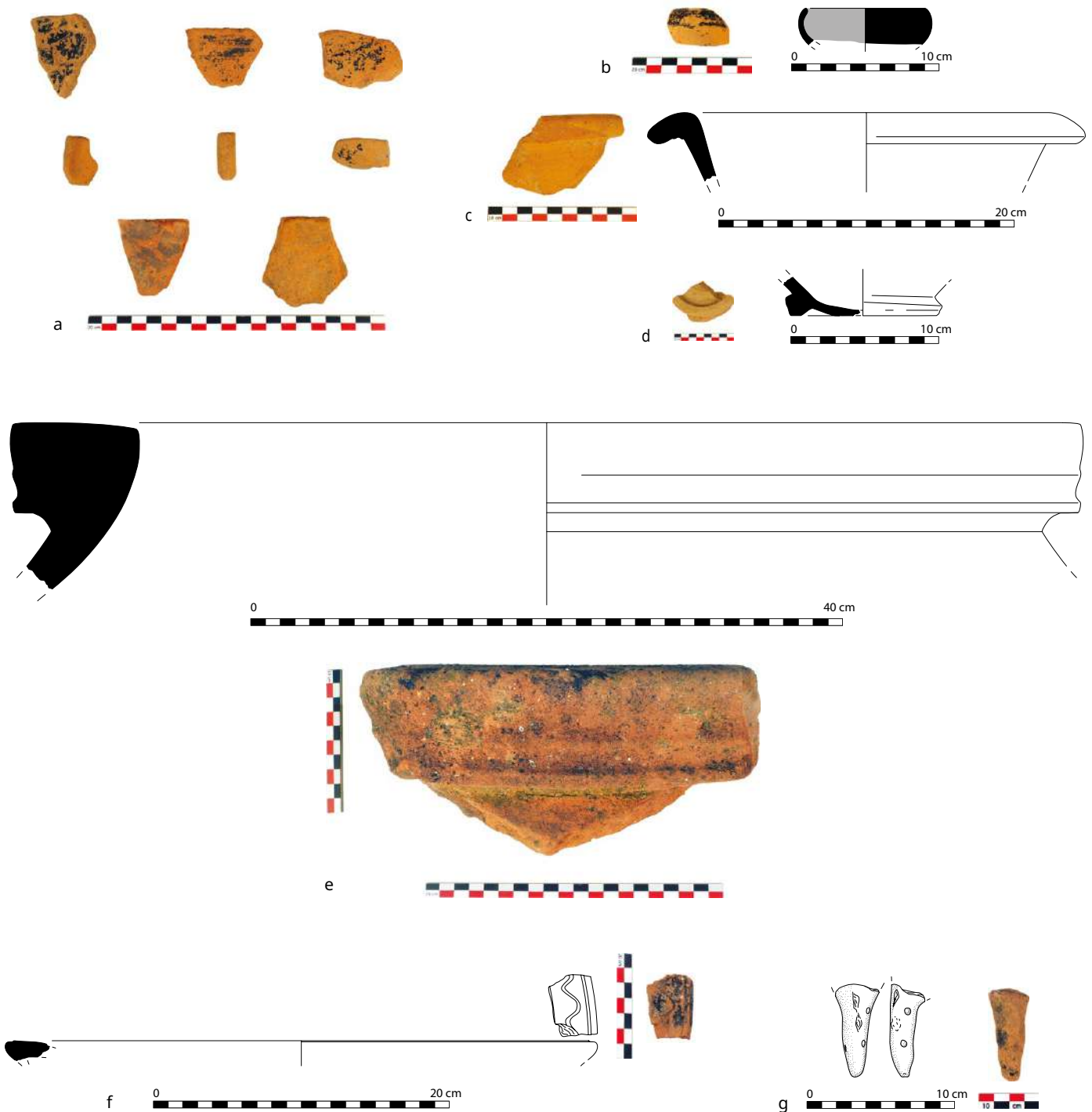
pression – initially gained from the deeply plowed Tract 88 – that we were dealing with a substantial site of long-term, habitational character.

84 This interpretation is primarily supported by the exceptionally large quantity of roof tiles. While one might rightly argue that such finds alone do not constitute definitive evidence of domestic occupation, the significant typological variety and broad chronological span – from the Archaic period to Late Antiquity – strongly suggest a diachronic concentration of buildings in this area.

85 This hypothesis is further supported by the discovery of a range of finds indicative of domestic activities, including loom weights, common household pottery such as cooking ware and storage pithoi, as well as tesserae and fragments of wall plaster. However, two fragments of stamped roof tiles may point to the presence of one or more public buildings in the area, as we are going to see next.

86 The highest density of finds was recorded in Tract 37, a plowed field right to the northwest of Tract 88, where an exceptionally large quantity of roof tile fragments was recovered, alongside ceramic sherds of various periods and traces of a wall on the



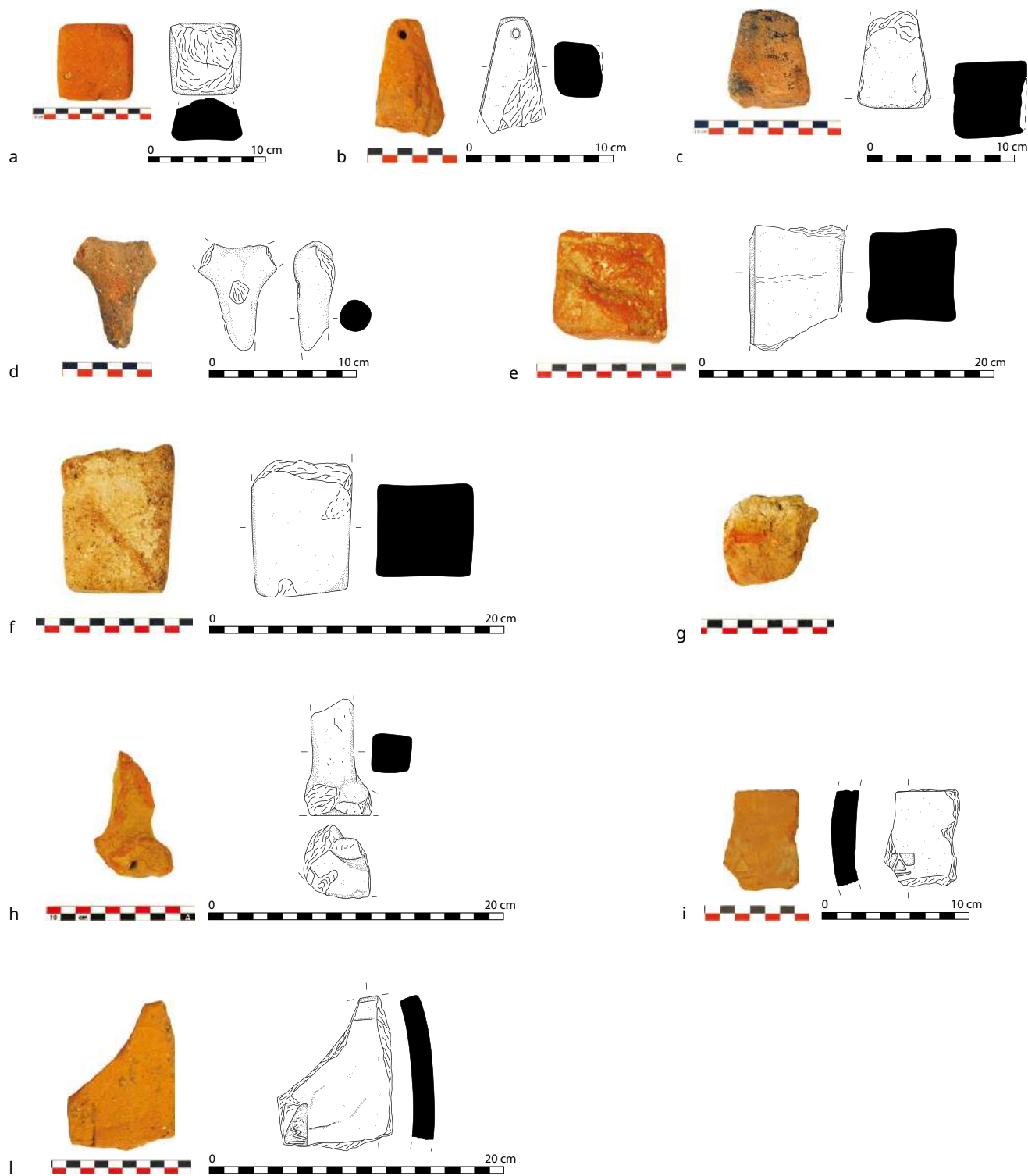


23

91 At present, a definitive interpretation of the evidence presented so far remains premature. Both the functional and chronological assessment of the material must be considered provisional, pending the completion of further analytical work and additional field investigations. Moreover, no single line of evidence, be it architectural, ceramic, or geophysical, is sufficient on its own. Only the convergence of multiple, mutually reinforcing data sources enables the formulation of credible interpretive hypotheses. In any case, the interpretations proposed here must be treated as preliminary and subject to confirmation through targeted excavation: only data from stratified contexts can establish the chronology and function of the site with greater confidence.

92 Nevertheless, among the areas surveyed, the zone encompassing Tract 88 and its immediate surroundings stands out for the consistency and significance of its

Fig. 23: Amykles. a) Laconian black-glazed Archaic to Hellenistic fine pottery (Tract 37); b) Rim of small black-glazed bowl (Tract 37); c) Lekane rim – Late Classical to Hellenistic (Tract 37); d) Lekane base – Hellenistic (Tract 37); e) Fragment of pithos rim – Late Classical to Hellenistic (Tract 37); f) Rim of black-glazed open vessel with curved line decoration (Tract 37); g) Tripod cooking ware leg of the Late Roman period (Tract 37)



24

Fig. 24: Amykles. a-c) Loom weights (Tract 37); d) Kiln separator (Tract 37); e. f) Bricks/kiln stands (Tract 37). — g-l) Evidence of buildings: g) Mudbrick with plaster (Tract 37); h) Terracotta fragment of anthemion (Tract 37); i) Stamped tile fragment with delta (Tract 37, inv. AM-S 37.35.SF1a); l) Stamped tile with sigma (Tract 37, inv. AM-S 37.31.SF1)

archaeological indicators. When surface survey data, artifact collection, and geophysical measurements from this area are integrated, a coherent picture begins to emerge – one that suggests a substantial site with well-defined structural remains. The combined presence of roof tiles and wall fragments in several systematically surveyed tracts strongly supports the existence of major human occupation. These indicators point not only to domestic or productive buildings, but potentially also to larger, possibly public or elaborate structures.

93 In particular, the sharp east-west magnetic anomalies recorded in the northern part of MAG2 align with the remains of a mudbrick wall still partially visible on

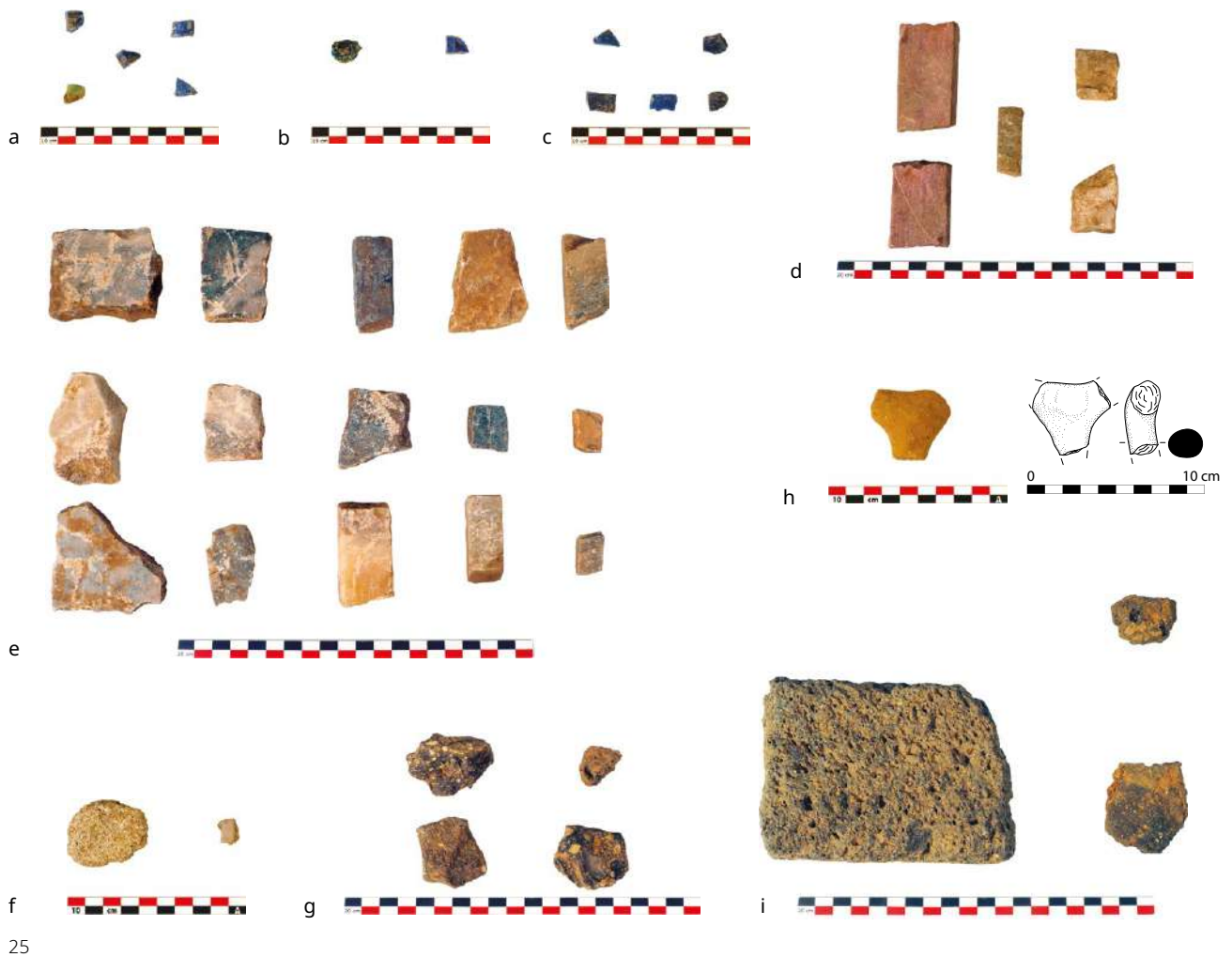


Fig. 25: Amykles. a–c) Green and blue tesserae (Tract 41); d. e) Opus sectile (Tract 41); f) Opus sectile with plaster (Tract 41); g) Ceramic wasters (Tract 41); h) Kiln separator (Tract 87); i) Olynthus-Type mill (Tract 87)

the surface. A north-south return is also visible in the northeastern section of MAG2, perhaps marking a corner of the same architectural complex. In the southern sector, magnetometry has revealed a pair of parallel east-west linear anomalies, spaced approximately 5.5 m apart and traceable for about 84 m. Given their form, scale, and the limited quantity of sizeable surface finds in the related plowed area (Tract 88), this feature may be interpreted as a road (Fig. 22). The core area defined by these anomalies, bounded on three sides and centered on Tract 88, not only corresponds to a spatially coherent zone in the magnetic data, but also aligns with a concentration of rich archaeological deposits visible on the surface.

94 These deposits appear to extend westward and northwestward. Although the current extent of geophysical coverage prevents a full assessment, the abundance of diagnostic material in Tract 37 supports the hypothesis of continued occupation or activity in that direction. Surface evidence, particularly roof tiles and wall fragments, strongly suggests the presence of constructed buildings. While the precise nature of these structures remains uncertain, the presence of stamped tiles and decorative architectural elements implies that they were not exclusively domestic or utilitarian. The absence of cultic material further reduces the likelihood of a ritual function, pointing instead toward residential, productive, or potentially public uses.

95 Moving outward from this core area toward the south and northeast, the picture shifts. A patch of light-colored surface staining to the north of the plowed field – possibly indicating a compacted surface – corresponds with a magnetically quiet zone in the northeastern section of MAG2. Similarly, to the south of the linear anomalies, numerous weak and small-scale magnetic features may signal subsurface deposits of

a different character from those found within the enclosed core. Further afield, the distribution of surface finds becomes more irregular. While Tract 88 and its immediate vicinity yielded the densest concentrations of material, more distant tracts – such as Tract 89 – produced markedly fewer finds, despite optimal visibility and survey conditions. The highest artifact densities were recorded in Tracts 37 and 41, with a marked decline toward the eastern boundary of the survey area (Fig. 18). This distribution likely reflects variations in land use, occupation intensity, or taphonomic processes, and helps define the probable extent of the site currently centered around Tract 88.

96 In light of previous archaeological investigations in this region – which had revealed only sparse and scattered traces of past occupation –, the picture emerging from the 2024 survey is particularly noteworthy. The evidence points to the existence of a previously unknown site of considerable size and importance, substantial both in its physical extent and in the quality and quantity of material remains. The results suggest the presence of a long-inhabited, structurally complex settlement. Its architectural sophistication and artifact-rich deposits indicate a site that likely played a meaningful role in the ancient landscape, one that clearly warrants continued, focused, and expanded archaeological investigation.

### Results of the Non-Systematic Survey

97 During the non-systematic survey we encountered several distinctive features suggesting a chronologically and typologically diverse use of the area. The following section presents these results, beginning with the most notable finds – features that may represent Mycenaean burials – followed by a discussion of other types of remains.

#### The Spilakia Area

98 The southeastern sector of the survey area is locally known as »Spilakia«. This toponym means »little caves« and appears to derive from the numerous ground cavities and rock-face openings characterizing this portion of the Eurotas Valley. Previous research in the area identified some of these formations as potential remains of Mycenaean tombs, building on the discovery of six chamber tombs of Late Helladic II-IA-B date uncovered during earlier excavations<sup>49</sup>. According to Banou, this Mycenaean necropolis, possibly extending as far as to the north of the Amyklaion, was the largest in Laconia, with a surface area exceeding 1500 m<sup>2</sup><sup>50</sup>. During non-systematic inspections, we identified a considerable number of such openings, particularly concentrated on the slopes in the central part of the survey area (Fig. 26).

99 During the present survey, these features were for the first time precisely mapped and systematically documented, both in writing and through photographic records. They resemble voids in the ground, likely produced by cuts into the bedrock. Following the interpretations of previous scholars, we provisionally identified them as potential Mycenaean tombs and referred to them as »spilakia« during the survey. We use this term in a neutral sense, acknowledging that further archaeological investigation is needed to confirm whether some, or indeed any, of these cavities should be interpreted as funerary structures.

100 The spatial distribution of these features is significant. Spilakia mostly occur across most slopes of the low hills scattered throughout the valley, with a clear pref-

---

49 Georgoulaki 1988, 379. 405; Banou has proposed to identify these openings as Mycenaean tombs (Banou 1996, 14. 32. 77 f. 105 f. 148 table 1 no. 5; plan 3). For the discovery of such burials in the area, see Spyropoulos 1981 and Zavvou 1998b. Already Tsountas had noted two chamber tombs at Amyklai (Tsountas 1888, 199; Tsountas 1889, 131). For a recent scholarly treatment of the Mycenaean burials of Laconia, see Gallou 2020, 24 f.

50 Banou 1996, 32.



Fig. 26: Amykles. Spilakia distribution map

26

erence for more prominent orographical formations. The spilakia openings showed significant variation from each other in both size and shape, but we could single out two recurring types: what we termed the »hole type« and the »loculus type«. This classification remains provisional and primarily serves descriptive purposes. Further analysis may refine or revise this typology as our understanding of the area evolves.

101 The »hole type« appears either as isolated (Fig. 27 a) or in clusters (Fig. 27 b). Typically, these were shallow features, ranging in depth from a few centimeters to several decimeters. Most voids ended in sediment fill, suggesting that they may have been intentionally backfilled or naturally infilled over time. In some instances, these cavities displayed elongated bedrock cuts extending along the hillslope from the opening, possibly indicating the presence of a dromos (SF BC103; Fig. 28). When isolated, these openings were relatively easy to record and describe; when clustered, however, their boundaries and internal organization were harder to determine, raising questions as to whether they represented single multi-chambered structures or aggregations of separate features.

102 The »loculus type« consisted of cavities carved directly into exposed bedrock faces and varied considerably in size. A particularly large example (Fig. 29 a: SF BC109) with two openings measuring ca. 6.5 m occurs on the slope Tract 131 below the plateau Tract 43 discussed above, while smaller instances were recorded further to the east (Fig. 29 b: SF BC132).

103 In general, the archaeological material found near these openings was limited, with a few exceptions. In some cases, pottery fragments and small artifacts, such as two non-joining fragments (a rim and body) of either one or two large Mycenaean vessels (Fig. 30 a, b), were recovered in the immediate vicinity (Fig. 30 c–e)<sup>51</sup>.

51 Rim fragment inv. AM-S 104.2.1a was found in front of SF BC47, while the body fragment comes from the front of spilaki SF BC103 with its dromos-like bedrock cut shown in Fig. 28.



27



28

Fig. 27: Amykles. a) SF BC83: isolated spilaki; b) Spilakia ›cluster type‹

Fig. 28: Amykles. SF BC103: spilaki with dromos-like bedrock cut

Fig. 29: Amykles. a) SF BC109: example of ›loculus type‹ in Tract 131, below plateau Tract 43; b) SF BC132: example of ›loculus type‹ (above) and ›cluster type‹ (below) spilakia



29



104 As excavation was beyond the scope of the current season, a more precise interpretation of these features remains premature. Nevertheless, given their morphological characteristics, topographical context, and similarities with known Mycenaean tombs, it seems plausible to interpret most of these openings as burials of that period.

105 Although the existence of this large necropolis had already been argued, the findings of the present survey give us a broader and deeper understanding of the necropolis that once occupied this landscape and add substantial weight to this notion. The density and distribution of the spilakia, as mapped in the course of our work, lend strong support to Banou's hypothesis that this sector of the Eurotas Valley once hosted a major Mycenaean necropolis. In addition, it plays in favor of the idea that hills and slopes surrounding the Amyklaion appear to have been not only widely but also in-

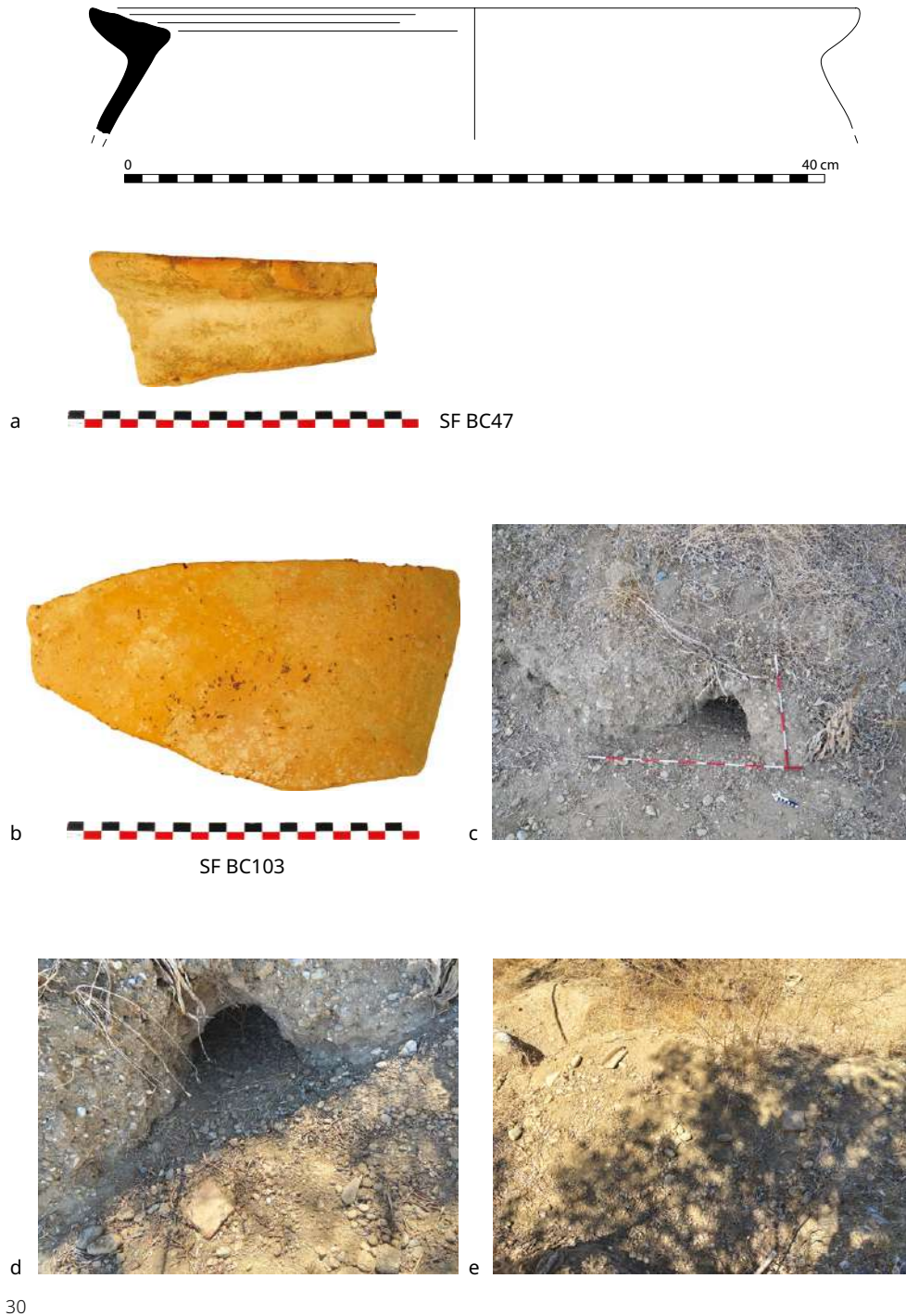


Fig. 30: Amykles. a. b) Fragments of large Mycenaean vessel(s) found in front of spilakia. a) Rim of SF BC47: inv. AM-S 104.2.1; b) Body of SF BC103; c. d) SF BC47: spilakia opening front view; e) SF BC47: spilakia opening back view with vessel(s) fragments AM-S 104.2.1

tensively used for burial purposes. The extent and concentration of these features as recorded in our survey point to a significant Mycenaean funerary zone, reinforcing the broader importance of this hilly landscape – stretching at least from Vapheio in the south to the northern limits of the Amyklaion – as a locus of burial practices that we will further explore in future seasons<sup>52</sup>.

#### Other Non-Systematic Survey Results

106 In addition to the identification of the spilakia, the survey also documented a number of ›special features‹ indicating potentially archaeologically significant structures, as well as isolated finds of interest.

52 For the extent of the necropolis, see Banou 1996, map 3.



31



32



33



34

Fig. 31: Amykles. SF BC80: bedrock cut. Possible quarry

Fig. 32: Amyklaion. Conglomerate blocks

Fig. 33: Amykles. Conglomerate block with cut for metal clamp (SF Afr124)

Fig. 34: Amykles. Wall at the football field (SF AF108)

107 In the eastern sector of the survey area especially, we documented several cuts carved into the local conglomerate bedrock (Fig. 31). These features appeared artificial, as some displayed distinct angular and rounded profiles that suggested deliberate shaping. Although we did not find clear tool marks, the morphology of the cuts pointed to the possible results of quarrying activities. We found further support of conglomerate employment in monumental architecture in the use of conglomerate blocks in the second phase of the peribolos wall at the Amyklaion (Fig. 32)<sup>53</sup>. During the survey, we also recorded conglomerate blocks with cuts for metal clamps (Fig. 33), reinforcing the idea that local stone served architectural purposes. Similar quarry features appeared at Vapheio, where researchers clearly identified and interpreted them as conglomerate extraction sites<sup>54</sup>.

108 During the survey, architectural features visible on the surface were encountered only sporadically. In the slope-cut immediately bordering the north of the football field plot, we documented the cross-section of a wall (SF AF108; Fig. 34) constructed from small stones and still preserved in situ<sup>55</sup>. Since the wall protrudes from the slope marking the southern edge of Tract 37, it may relate to archaeological contexts associated with the abundant material recovered from that tract. Another short wall segment (SF AF90) was identified along the modern dirt road that encircles the southern slope of the Amyklaion hill (Fig. 35). Oriented roughly north-south, this wall had been partially cut by the road, but its visible continuation on both road scarps suggests it extends beneath the surface into the adjacent Tracts 70 and 106 to the north and south, respectively.

53 See Kokkorou-Alevras 2011–2012, 144 who supposed that the stone for the peribolos »must have been quarried somewhere close to the Amyklaion«.

54 See esp. Hitchcock et al. 2016.

55 It is the same wall mentioned above (§ 86) on the southern slope of Tract 37.



35



36



37



38

109 In the southeastern sector of the survey area, we recorded two slightly more substantial wall remains (SF AF13 and AF14). Unfortunately, their poor state of preservation, combined with limited surface visibility, prevents a more conclusive interpretation. Some construction material resembled modern concrete, pointing to a likely function in recent agricultural infrastructure, such as shallow terracing or soil retention. Nonetheless, several blocks embedded in these walls appeared to be ancient spolia. Despite their deteriorated condition, a few conglomerate stones exhibited cuttings consistent with block-dressing techniques – comparable to those observed in the peribolos wall of the Amyklaion – possibly intended to seat adjoining or superimposed blocks (Fig. 36).

110 Scattered across the survey area, we identified several architectural members of varying typology and presumed chronology. At the foot of the Amyklaion hill, we recorded a small block of fine marble bearing traces of painted plaster (SF Afr68). Its findspot and workmanship strongly suggest an original association with the sanctuary (Fig. 37). Possibly three blue-gray limestone blocks (SF Afr71), reused as spolia in a fountain enclosure near the Xoklisi church, likely also derive from the sanctuary, as both their lithology and finish closely resemble the limestone employed in the construction of the throne of Apollo Amyklaios (Fig. 38).

111 In a heavily overgrown agricultural ditch bordering a field (Tract 12) north of the Xoklisi church, we located a small marble column (SF Afr31), which may have belonged to an otherwise undocumented structure dating to the Roman, Late Roman, or possibly Byzantine period – though further analysis is required to clarify both its

Fig. 35: Amykles. Wall cut by modern dirt road south of Amyklaion (SF AF90)

Fig. 36: Amykles. Dressing cut on block of possibly modern wall to the southeast of the survey area (SF AF13)

Fig. 37: Amykles. Marble block with painted plaster (SF Afr68)

Fig. 38: Amykles, Xoklisi. Blocks from the Amyklaion re-employed in a modern fountain enclosure (SF Afr71)



39

Fig. 39: Amykles. Marble column near Xoklisi (SF Afr31)



40

Fig. 40: Amykles. Fragment of limestone threshold block (SF Afr134)

Fig. 41: Amykles. Stone slabs distribution map



41

chronology and attribution (Fig. 39)<sup>56</sup>. In a field (Tract 16) to the southwest of the same church, we recovered a fragment of a limestone threshold block (Fig. 40).

112 One final category of finds worth mentioning is that of stone slabs, documented in notable quantity and dispersed across the survey area (Fig. 41). Since these slabs were found out of their original context, their precise function and use cannot be determined with certainty. However, their form and dimensions suggest they may have served funerary purposes – possibly as grave markers (Fig. 42 a) or grave covers (Fig. 42 b), depending on size and shape. These features may reflect burial practices in the area, potentially associated with *spilakia* or other types of graves of varying form and chronology.

56 Thick thorn bushes prevented a detailed autopsy of the piece, obstructing both physical access and visibility while also screening the area from sunlight.



42

## Conclusions and Perspectives

113 This preliminary overview of the 2024 Amykles Survey highlights the significant archaeological potential in this part of the Eurotas Valley as well as the inherent challenges for the conduct of fieldwork there. Earlier investigations had already established the use of the area as a necropolis during the Late Bronze Age, while rescue excavations conducted by the Ephorate of Antiquities of Laconia in the broader region provided additional evidence for human activity in later periods of antiquity. Although the remote sensing imagery collected in preparation for our geophysical and pedestrian surveys offered valuable resources for the study and investigation of the area, it did not help in revealing substantial remains attesting to past human occupation.

114 In contrast, the pedestrian survey yielded broad diachronic evidence of anthropogenic activity. Notably high artifact densities were recorded in two key areas: the terrain immediately south of the Amyklaion and the region north and east of the Amykles football field. While most of the material recovered south of the sanctuary was likely redeposited from the site itself, the assemblage near the football field suggests a sizeable site with a primarily habitational character. The evidence from the survey seems to indicate long-term occupation in this area, spanning from the Middle Helladic period to Late Antiquity. At the current stage of research, it remains unclear how intense the individual phases of occupation were or whether they were continuous or marked by interruptions. The geophysical survey further contributed by providing subsurface evidence indicating that both the monumentality and the spatial extent of the site are greater than what is detectable from surface remains alone. Although the four weeks of fieldwork did not allow for extensive geophysical measurements or for answering all research questions based on surface material, the survey succeeded in identifying what appears to be a major archaeological site. It also demonstrated the considerable potential of this territory for long-term and diachronic investigation, providing promising geophysical results for which we aim to conduct further measurements on a larger scale.

115 In the eastern part of the survey area, features from the historical period were significantly fewer. Instead, the majority of the features encountered in this zone were the so-called spilakia – small openings in the slopes of the local conglomerate rock, commonly interpreted in modern scholarship as Mycenaean tombs. While half a dozen of these features was excavated in the past and quite securely identified as Mycenaean chamber tombs, many others had only been cursorily recorded. As part of our survey, we systematically documented these features – both previously known and newly identified – through topographic mapping, photography, and written descriptions. This evidence suggests that the Late Bronze Age funerary landscape in the region between Amyklai and Vapheio was not only extensive but also considerably more densely utilized than previously assumed.

Fig. 42: Amykles. a. b) Stone slabs (SF NN52 and NN22, respectively)

116 In contrast to the prominent number of tombs, evidence of other forms of human activity in this part of the survey area remains limited. This disparity raises the question of whether the region served an exclusively funerary function, or whether traces of other uses have been obscured over time by erosion, agricultural activity, or other post-depositional disturbances. To clarify the broader role of this landscape, further survey and targeted excavation will be necessary. Future investigations may help determine whether these hills fulfilled additional functions beyond burial, shedding light on a potentially more complex pattern of land use in this sector of the Eurotas Valley in the Late Bronze Age and beyond.

117 The results presented here remain preliminary and are inherently constrained by the methodological challenges encountered during fieldwork, particularly those arising from highly variable surface visibility. In future seasons, we intend to revisit these areas with a focus on assessing the impact of contemporary agricultural practices on the archaeological landscape. Should visibility conditions improve, especially in fields scheduled for plowing or vegetation clearance, we plan to carry out additional survey work. Such efforts may yield new evidence and offer a more comprehensive understanding of the broader patterns of land use.

118 A striking outcome of the 2024 survey is the notable absence of clear archaeological evidence for agricultural installations or rural habitation structures, such as farmsteads, in a region renowned in ancient sources for its exceptional fertility. This discrepancy raises important questions about the visibility and preservation of agrarian infrastructure in the Eurotas Valley and calls for a more nuanced approach to reconstructing ancient land use. As such, a key objective for future research will be the development of an integrated environmental reconstruction of the area, combining archaeological data with geomorphological, paleoenvironmental, and remote sensing analyses. This multidisciplinary approach will help assess whether the lack of identifiable agricultural features is the result of post-depositional processes, methodological limitations, or alternative land-use strategies in antiquity.

119 The results of our research furthermore invite a reconsideration of the nature of the newly identified sites – situated between the two major sanctuaries of ancient Amyklai known from literary sources (the sanctuaries of Apollo Amyklaios and of Alexandra/Kassandra and Agamemnon) – and their diachronic role in the religious and civic landscape of the Eurotas Valley.

## Acknowledgments

120 Our sincere appreciation goes to the many students who participated in the fieldwork during the summer of 2024 and contributed to the project not only by manual labor but also by numerous fruitful observations and discussions. The authors would like to further thank the Archaeological Society at Athens for providing the permit, the Cluster of Excellence »Religions and Politics« (University of Münster) for substantial financial support of the project, and acknowledge that provided by the École française d'Athènes (EFA). Last but not least, we express our gratitude to the Community of Amykles whose representatives and inhabitants have welcomed us warmly and enriched the project with their support, local knowledge, and heartfelt hospitality.

## References

- Antonakos 1982** S. P. Antonakos, Αμύκλαι (Athens 1982)
- Banou 1996** E. Banou, Beitrag zum Studium Lakoniens in der mykenischen Zeit, Quellen und Forschungen zur antiken Welt 20 (Munich 1996)
- Banou 2017** E. Banou, Αρχαιολογική έρευνα πεδίου στην περιοχή Βαφειού-Παλαιοπυργίου, ADelt 72 B'1, 2017, 187 f.
- Banou et al. 2022** E. Banou – A. P. Chapin – L. A. Hitchcock, The Eurotas Valley, Laconia, the 2nd Millennium BC. The Area of Vapheio-Palaiopyrgi in Context, in: C. W. Wiersma – M. P. Tsouli (eds), Middle and Late Helladic Laconia. Competing Principalities?, Publication of the Netherlands Institute at Athens 7 (Leiden 2022) 21–31
- Bonsall et al. 2013** J. Bonsall – R. Fry – C. Gaffney – I. Armit – A. Beck – V. Gaffney, Assessment of the CMD Mini-Explorer, a New Low-Frequency Multi-Coil Electromagnetic Device, for Archaeological Investigations, Archaeological Prospection 20/3, 2013, 219–231
- Buschor – von Massow 1927** E. Buschor – W. von Massow, Vom Amyklaion, AM 52, 1–85
- Cartledge 1979** P. Cartledge, Sparta and Lakonia. A Regional History 1300–362 BC, States and Cities of Ancient Greece (London 1979)
- Cavanagh et al. 1996** W. Cavanagh – J. Crouwel – R. W. V. Catling – G. Shipley – P. Armstrong – T. Carter – D. Hibler – R. Jones – J. Lawson – M. Overbeek – A. Sarris – H. Visscher – M. Ydo (eds), The Laconia Survey. Continuity and Change in a Greek Rural Landscape. 2. Archaeological Data, BSA Suppl. 27 (London 1996)
- Christou 1956** Ch. Christou, Ανασκαφή ἐν Αμύκλαις, Prakt 112, 1956, 211 f.
- Christou 1960** Ch. Christou, Ανασκαφή Αμυκλών, Prakt 116, 1960, 228–231
- Christou 1961** Ch. Christou, Ανασκαφή Αμυκλών, Prakt 117, 1961, 177 f.
- Christou 1962** Ch. Christou, Ανασκαφαί Σπάρτης, Prakt 118, 1962, 113–121
- Delivorrias 1968a** A. Delivorrias, Ειδήσεις εκ Σπάρτης, AAA 1, 1968, 41–45
- Delivorrias 1968b** A. Delivorrias, Λακωνία, ADelt 23 B, 1968, 149 f.
- Fiechter 1918** E. Fiechter, Amyklæe. Der Thron des Apollon, AM 33, 1918, 107–245
- Gallou 2020** Ch. Gallou, Death in Mycenaean Laconia. A Silent Place (Oxford 2020)
- Georgoulaki 1988** E. Georgoulaki, Το Μυκηναϊκό ιερό στο Αμυκλαίο. Επανεξέταση, Lakonikai Spoudai 9, 1988, 376–409
- Hitchcock et al. 2016** L. Hitchcock – A. P. Chapin – E. Banou – J. H. Reynolds, The Conglomerate Quarry at the Mycenaean Site of Vapheio-Palaiopyrgi in Laconia, Hesperia 85/1, 2016, 65–90
- Kokkorou-Alevras 2011–2012** G. Kokkorou-Alevras, Throne of Apollo Amyklaios. Provenance of the Stones: Preliminary Conclusions, Μουσείο Μπενάκη 11–12, 2011–2012, 139–147
- Lolos 2011** Y. Lolos, Land of Sikyon: Archaeology and History of a Greek City-State, Hesperia Suppl. 39 (Princeton, N.J. 2011)
- Lolos 2021** Y. Lolos (ed.), Sikyon I. The Urban Survey, Μελετήματα (National Hellenic Research Foundation/ Institute of Historical Research) 82 (Athens 2021)
- Lupi 2006** M. Lupi, Amompharetos, the Lochos of Pitane and the Spartan System of Villages, in: S. Hodkinson – A. Powell (eds), Sparta & War (Swansea 2006) 185–218
- Matalas 2011–2012** P. Matalas, Searching for the Amyklaion: For a History of the ›Discovery‹ of the Sanctuary in the Modern Era, Μουσείο Μπενάκη 11–12, 2011–2012, 169–176
- Nomicos et al. 2022/2023** S. Nomicos – St. Vlizos – M. Becken – A. Kazolias – V. Panagiotidis – V. Schmidt – M. Wendel – N. Zacharias, Remote Sensing and Geophysical Survey at the Sanctuary of Apollo Amyklaios, Sparta, Greece. Results of the 2022 Measurements, Boreas 45/46, 2022/2023, 217–245
- Raftopoulou 1992** S. Raftopoulou, Αμύκλες. Αρδευτικά έργα, ADelt B 47, 1992, 110
- Raftopoulou 1994** S. Raftopoulou, Αμύκλες Λακεδαίμονος. Οικόπεδο Μ. Μπορέτου, ADelt B 49, 1994, 188
- Salapata 2014** G. Salapata, Heroic Offerings. The Terracotta Plaques from the Spartan Sanctuary of Agamemnon and Cassandra (Ann Arbor 2014)
- Sarris – Jones 2000** A. Sarris – R. E. Jones, Geophysical and Related Techniques Applied to Archaeological Survey in the Mediterranean: A Review, JMedA 13/1, 2000, 3–75
- Spyropoulos 1981** T. Spyropoulos, Αμύκλες, ADelt B 36, 1981, 126–129
- Spyropoulos 1982** T. Spyropoulos, Παλαιοπύργι-Βαφειό, ADelt B 37, 1982, 112
- Stewart 2021** D. Stewart, Field-Walking Methodology, in: Y. Lolos (ed.), Sikyon I. The Urban Survey, Μελετήματα (National Hellenic Research Foundation/ Institute of Historical Research) 82 (Athens 2021) 15–27
- Themos 1998** A. Themis, Αμύκλες. Αγρός Α. Σακελλαράκου, ADelt B 53, 1998, 173
- Tsiaggouris 2011** G. Tsiaggouris, Θέση Λεύκα (οικόπεδο Π. Καραγκούνη), ADelt B 66, 2011, 183
- Tsouli 2010** M. Tsouli, Αμύκλες. Νεκροταφείο Αγίας Παρασκευής, ADelt B 65, 2010, 515 f.
- Tsouli 2016** M. Tsouli, Υποέργο «Αρχαιολογικές έρευνες και εργασίες» του Έργου ΕΣΠΑ «Αντικατάσταση δικτύου ύδρευσης Αμυκλών», ADelt B 71, 2016, 312
- Tsouli – Sarantopoulou (forthcoming)** M. Tsouli – A. Sarantopoulou, Αντικατάσταση δικτύου ύδρευσης Αμυκλών, ADelt B 73, 2018 (forthcoming)
- Tsouli – Tsiaggouris 2013** M. Tsouli – G. Tsiaggouris, Αμύκλες. Θέση Λεύκα (οικόπεδο Κ. Καραγκούνη), ADelt B 68, 2013, 126 f.

- Tsountas 1888** Ch. Tsountas, Περὶ τοῦ ἐν Βαφειῶ Τάφου, *AEphem* 1888, 198 f.
- Tsountas 1889** Ch. Tsountas, Ἐρευναι ἐν τῇ Λακωνικῇ καὶ ὁ τάφος τοῦ Βαφειοῦ, *AEphem* 1889, 130–172
- Tsountas 1892** Ch. Tsountas, Ἐκ τοῦ Ἀμυκλαίου, *AEphem* 1892, 1–26
- Vasilogamvrou – Tsouli 2021** A. Vasilogamvrou – M. Tsouli, Νέα στοιχεία για την αρχαία Σπάρτη, ἀπὸ τους προϊστορικούς ἕως τους ὑστερους ρωμαϊκούς χρόνους, ἀπὸ τις πρόσφατες ανασκαφές, in: Εταιρεία Πελοποννησιακῶν Σπουδῶν (ed.), Πρακτικά τοῦ 9<sup>ου</sup> Διεθνούς Συνεδρίου Πελοποννησιακῶν Σπουδῶν 1, Ναύπλιον, 30 Οκτώβριου – 2 Νοεμβρίου 2015, Πελοποννησιακά Suppl. 33 (Athens 2021) 19–62
- Vella – Sarris 2022** M. A. Vella – A. Sarris, Geophysical Survey in Archaeological Context: A Review from Cyprus, *Archaeological Prospection* 29/3, 2022, 417–450
- Vlzos 2020** St. Vlzos, Metallwerkstätten, Produktion und Infrastruktur des Heiligtums. Der Fall des spartanischen Amyklaions, in: A. Lo Monaco (ed.), *Spending on the Gods: Economy, Financial Resources and Management in the Sanctuaries in Greece*, *ASatene Suppl.* 7 (Athens 2020) 37–46
- Wiersma et al. 2020** C. W. Wiersma – W. de Neef – S. Voutsaki – A. Vasilogamvrou, The Ayios Vasileios Survey Project. Preliminary Results, in: M. Xanthopoulou – E. Banou – E. Zymi – E. Giannouli – A. Karapanagiotou – A. Koumoussi (eds), *Το αρχαιολογικό ἔργο στην Πελοπόννησο 2 (ΑΕΠΕΛ2) Πρακτικά της Β' Επιστημονικῆς Συνάντησης, Καλαμάτα, 1–4 Νοεμβρίου 2017 (Kalamata 2020)* 167–177
- Wiersma et al. 2022a** C. W. Wiersma – P. Bes – M. W. van Ijzendoorn – A. Woznura – S. Voutsaki, The Site of Ayios Vasileios in Laconia from the Prehistoric to the Early Modern Period. Results of the Pedestrian Field Survey, *Journal of Greek Archaeology* 7, 2022, 122–172
- Wiersma et al. 2022b** C. W. Wiersma – W. de Neef – S. Voutsaki – A. Vasilogamvrou, The Ayios Vasileios Survey Project. A Preliminary Outline of the Habitation History and Size of Ayios Vasileios Compared to Other Palatial Settlements, in: C. W. Wiersma – M. P. Tsouli (eds), *Middle and Late Helladic Laconia. Competing Principalities?*, Publication of the Netherlands Institute at Athens 7 (Leiden 2022) 57–71
- Zavvou 1996** E. Zavvou, Ἀμύκλες Λακεδαίμονος. Σκλαβοχώρι (οικόπεδο Δημ. Κονιδάρη), *ADelt* B 51, 1996, 129–131
- Zavvou 1998a** E. Zavvou, Ἀμύκλες. Οικόπεδο Δ. Κονιδάρη, *ADelt* B 53, 1998, 172 f.
- Zavvou 1998b** E. Zavvou, Θέση Σπηλάκια, *ADelt* B 53, 1998, 173
- Zavvou 2000** E. Zavvou, Ἀμύκλες. Οικόπεδο Β. Πολίτη, *ADelt* B 55, 2000, 229

---

## ILLUSTRATION CREDITS

Title Page: Volkmar Schmidt. Amykles Research Project. All rights reserved

Fig. 1: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 2: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 3: Georeferencing: Nicola Nenci; Satellite Image: USGS EROS Archive. All rights reserved

Fig. 4: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 5: Maria Tsouli. Ephorate of Antiquities of Laconia. All rights reserved

Fig. 6: Vayia Panagiotidis, Anastasios Kazolias. Amykles Research Project. All rights reserved

Fig. 7: Topographical Map: Hellenic Geographical Military Service; Final elaboration and georeferencing: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 8: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 9: Sophia Nomicos. Amykles Research Project. All rights reserved

Fig. 10: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 11: Volkmar Schmidt. Amykles Research Project. All rights reserved

Fig. 12: Volkmar Schmidt. Amykles Research Project. All rights reserved

Fig. 13: Volkmar Schmidt. Amykles Research Project. All rights reserved

Fig. 14: Volkmar Schmidt. Amykles Research Project. All rights reserved

Fig. 15: Volkmar Schmidt. Amykles Research Project. All rights reserved

Fig. 16: Volkmar Schmidt. Amykles Research Project. All rights reserved

Fig. 17: Volkmar Schmidt. Amykles Research Project. All rights reserved

Fig. 18: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 19: Vayia Panagiotidis, Anastasios Kazolias. Amykles Research Project. All rights reserved

Fig. 20: Pictures: Adrien Delahaye; Drawing: Yannis Nakas. Amykles Research Project. All rights reserved

Fig. 21: Pictures: Adrien Delahaye; Drawings: Yannis Nakas. Amykles Research Project. All rights reserved

Fig. 22: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 23: Pictures: Adrien Delahaye; Drawings:

Yannis Nakas. Amykles Research Project. All rights reserved

Fig. 24: Pictures: Adrien Delahaye; Drawings: Yannis Nakas. Amykles Research Project. All rights reserved

Fig. 25: Pictures: Adrien Delahaye; Drawings: Yannis Nakas. Amykles Research Project. All rights reserved

Fig. 26: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 27: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 28: Sophia Nomicos. Amykles Research Project. All rights reserved

Fig. 29: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 30: Objects pictures: Adrien Delahaye; Drawings: Yannis Nakas; Field pictures: Sophia Nomicos. Amykles Research Project. All rights reserved

Fig. 31: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 32: Stavros Vlivos. Amykles Research Project. All rights reserved

Fig. 33: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 34: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 35: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 36: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 37: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 38: Sophia Nomicos. Amykles Research Project. All rights reserved

Fig. 39: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 40: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 41: Nicola Nenci. Amykles Research Project. All rights reserved

Fig. 42: Nicola Nenci. Amykles Research Project. All rights reserved

---

## CONTACT

Dr. Sophia Nomicos  
Institut für Klassische und Christliche Archäologie,  
University of Münster  
nomicos@uni-muenster.de  
<https://orcid.org/0009-0008-9387-8045>  
<https://ror.org/00pd74e08>

Dr. Dr. Nicola Nenci  
Dipartimento di Lettere – Lingue, Letterature e  
Civiltà Antiche e Moderne, University of Perugia  
nicola.nenci@gmail.com  
<https://orcid.org/0009-0003-6449-7458>  
<https://ror.org/00x27da85>

Prof. Dr. Hans Beck  
Seminar für Alte Geschichte, Universität Münster  
hans.beck@uni-muenster.de  
<https://orcid.org/0000-0002-0319-1186>  
<https://ror.org/00pd74e08>

Prof. Dr. Adrien Delahaye  
UFR 3 – Faculté des Sciences Humaines &  
Sciences de l'Environnement, Département  
d'Archéologie et d'Histoire de l'art, Université de  
Montpellier – Paul Valéry  
adrien.delahaye@univ-montp3.fr  
<https://orcid.org/0000-0002-5064-2699>  
<https://ror.org/05pbb8783>

Dr. Volkmar Schmidt  
Institut für Geophysik, Universität Münster  
volkmar.schmidt@uni-muenster.de  
<https://orcid.org/0000-0001-8350-050X>  
<https://ror.org/00pd74e08>

Dr. Giorgos Tsiaggouris  
Ephorate of Antiquities of Lakonia  
gtsiaggouris@yahoo.gr

Dr. Maria Tsouli  
Ephorate of Antiquities of Lakonia  
mtsouli@culture.gr

Prof. Dr. Stavros Vlizon  
Department of Archives, Library Science and  
Museology, Ionian University  
vlizsst@ionio.gr  
<https://orcid.org/0000-0003-1314-0566>  
<https://ror.org/01xm4n520>

---

## METADATA

Titel/Title: The Amykles Survey Project. Results of  
the 2024 Season

Band/Issue: 2025/2

Bitte zitieren Sie diesen Beitrag folgenderweise/  
*Please cite the article as follows:* S. Nomicos –  
N. Nenci et al., The Amykles Survey Project.  
Results of the 2024 Season, AA 2025/2, § 1–120,  
<https://doi.org/10.34780/45xszy11>

Copyright: Der Text steht unter der Creative  
Commons Attribution 4.0 International License  
(CC BY 4.0: <https://creativecommons.org/licenses/by/4.0>). Für die Abbildungen gelten die Angaben  
im Bildnachweis./*The text is licensed under the  
Creative Commons Attribution 4.0 International  
License (CC BY 4.0: https://creativecommons.org/licenses/by/4.0). The illustrations are subject to the  
terms specified in the illustration credits.*

DOI: <https://doi.org/10.34780/45xszy11>

