



Publikationen des Deutschen Archäologischen Instituts

---

Katja Sporn

## Kalapodi 2014–2016: Investigating the surroundings, limits and infrastructure of the sanctuary

in: Sporn et al. - ANCIENT PHOKIS: New approaches to its history, archaeology and topography  
International conference, DAI Athens, 30 March – 1 April 2017 397-408

<https://doi.org/10.34780/ab7t-ocd7>

Herausgebende Institution / Publisher:  
Deutsches Archäologisches Institut

Copyright (Digital Edition) © 2025 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.

Katja Sporn | Alexandre Farnoux |  
Eric Laufer  
ANCIENT PHOKIS

Athenaia 13  
Études méditerranéennes 4

DEUTSCHES ARCHÄOLOGISCHES INSTITUT  
Abteilung Athen

**ATHENAIA 13**

ÉCOLE FRANÇAISE D'ATHÈNES

**ÉTUDES  
MÉDITERRANÉENNES 4**

DEUTSCHES ARCHÄOLOGISCHES INSTITUT  
Abteilung Athen

Katja Sporn | Alexandre Farnoux | Eric Laufer (eds.)

# ANCIENT PHOKIS

New approaches to its history, archaeology  
and topography

International Conference, DAI Athens, 30 March – 1 April 2017

REICHERT VERLAG

**Autor/Author:**

Katja Sporn (ORCID iD: <https://orcid.org/0000-0002-1845-5113>, ROR ID: <https://ror.org/05nqsnd28>)

Alexandre Farnoux (IdRef: <http://www.idref.fr/032145993/id>, ROR ID: <https://ror.org/02fzvr850>)

Eric Laufer (ORCID iD: <https://orcid.org/0000-0002-8758-6854>, ROR ID: <https://ror.org/05nqsnd28>)

**Titel/Title:** Ancient Phokis. New approaches to its history, archaeology and topography

**Reihe, Band/Series, Volume:** Athenaia 13

**Reihenherausgeber/Series Editor:** Katja Sporn, Reinhard Senff, Oliver Pilz

**Reihe, Band/Series, Volume:** Études méditerranéennes 4

**Reihenherausgeber/Series Editor:** École française d'Athènes

**Herausgebende Institution/Institutional Editor:** Deutsches Archäologisches Institut

**Umfang/Length:** X, 526 Seiten/Pages mit/with 244 Abbildungen/Illustrations

**Peer Review:** Dieser Band wurde einem Peer-Review-Verfahren unterzogen./*The volume is peer reviewed.*

**Verantwortliche Redaktion/Publishing Editor:** Deutsches Archäologisches Institut, Redaktion des Deutschen Archäologischen Instituts Athen, Fidou 1, 10678 Athen, Griechenland, [redaktion.athen@dainst.de](mailto:redaktion.athen@dainst.de)

**Redaktionelle Bearbeitung/Editing:** Simon Hoffmann, Diana Wolf, Ulrike Schulz

**Prepress:** le-tex publishing services GmbH, Leipzig

**Buchgestaltung und Coverkonzeption/Book Design and Cover Concept:** hawemannundmosch, Berlin

**Umschlagfoto/Cover Illustration:** Blick von Elateia über die Kephissosebene auf den Parnassos

(D-DAI-ATH-2018-17152\_2, Foto: Katja Sporn)

**Nutzungsbedingungen/Terms of Use**

Das Werk einschließlich aller seiner Teile ist urheberrechtlich geschützt. Eine Nutzung ohne Zustimmung des Deutschen Archäologischen Instituts und/oder der jeweiligen Rechteinhaber ist nur innerhalb der engen Grenzen des Urheberrechtsgesetzes zulässig. Etwaige abweichende Nutzungsmöglichkeiten für Text und Abbildungen sind gesondert im Band vermerkt./*This work, including all of its parts, is protected by copyright. Any use beyond the limits of copyright law is only allowed with the permission of the German Archaeological Institute and/or the respective copyright holders. Any deviating terms of use for text and images are indicated in the credits.*

**Druckausgabe/Printed Edition**

**Erscheinungsjahr/Year of Publication:** 2024

**Druck und Vertrieb/Printing and Distribution:** Dr. Ludwig Reichert Verlag Wiesbaden • [www.reichert-verlag.de](http://www.reichert-verlag.de)

**Druck und Bindung in Deutschland/Printed and Bound in Germany**

ISBN: 978-3-7520-0825-8 (Athenaia), 978-2-86958-624-6 (Études méditerranéennes)

**Bibliographische Metadaten/Bibliographic Metadata:** <https://zenon.dainst.org/Record/003063459>

**Bibliografische Information der Deutschen Nationalbibliothek:** Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über <https://dnb.de> abrufbar./*Bibliographic information published by the Deutsche Nationalbibliothek: The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available online at https://dnb.de.*

**Digitale Ausgabe/Digital Edition**

**Erscheinungsjahr/Year of Publication:** 2024

**DOI:** <https://doi.org/10.34780/xb69-ti55>

**Bibliographische Metadaten/Bibliographic Metadata:** <https://zenon.dainst.org/Record/003063459>

# Inhaltsverzeichnis

Vorwort .....	IX
Phocis, Delphoi, and the amphictyony .....	1
<i>Peter Londey</i>	
Living on a rock. The cities of ancient Phocis and the importance of place .....	11
<i>Hans Beck</i>	
Borders and identity in ancient Phocis: some reflections .....	23
<i>Giovanna Daverio Rocchi</i>	
Phocis in the Aetolian League. Self-abandonment or self-assertion? .....	33
<i>Peter Funke</i>	
The institutions of the Phocian League .....	45
<i>Denis Rousset</i>	
Phocis in Roman times: beyond the shadow of Delphi .....	67
<i>Georgios A. Zachos</i>	
Das phokische Koinon zwischen Bötien, Delphi, Athen und Rom .....	85
<i>Christoph Begass</i>	
Delphes et Kalapodi au début de l'âge du fer ancien (11 <sup>e</sup> –9 <sup>e</sup> siècles av. J.-C.) .....	101
<i>Jean-Marc Luce</i>	
Zur Selbstdarstellung der Phoker in Delphi .....	121
<i>Anne Jacquemin</i>	
Athena. A gateway to Delphi .....	133
<i>Sandrine Huber – Anne Jacquemin – Didier Laroche</i>	

Terres cuites figurées du dépôt votif de Kirrha: de l'établissement du matériel à son exploitation .....	147
<i>Stéphanie Huysecom-Haxhi</i>	
The sanctuary of Athena in Phocian Antikyra .....	165
<i>Athanasios Sideris</i>	
The fortifications of ancient Phocis	
Results and prospects .....	185
<i>Nicolas Kyriakidis</i>	
Δρόμος με παρελθόν .....	195
<i>Φανούρια Δακορώνια (†) – Πέτρος Κουνούκλας</i>	
Παναγίτσα Ελάτειας 1979–1981	
Κτερίσματα και ταφικά έθιμα σε κλασσικό νεκροταφείο της Ελατείας .....	209
<i>Πάντος Α. Πάντος</i>	
Spanning two oracles. The sanctuary of Demeter at Erochos, between Delphi and Abae .....	219
<i>Elena Partida – Anthoula Tsaroucha</i>	
The rediscovery of a manuscript by Erich Gose and Friedrich Schober on the Kephissos valley from 1926 .....	237
<i>Katja Sporn</i>	
Ο κρίσιμος 4ος αιώνας π.Χ.: παλαιές και νέες οχυρώσεις, παλαιοί και νέοι οικισμοί στην κοιλάδα του φωκικού Κηφισού .....	249
<i>Φώτης Ντάσιος</i>	
Panopeus .....	271
<i>Elena Kountouri – Ioannis Mavrommatidis – Nikolaos Petrochilos</i>	
New research on the fortification of Tithorea. A preliminary report of fieldwork 2016–2017 .....	287
<i>Petros Kounouklas – Eric Laufer</i>	
Surveying the caves above Tithorea in 2016 .....	307
<i>Stella Katsarou – Lina Kormazopoulou – Eric Laufer – Sabine Neumann – Katja Sporn – Ioanna Zygouri</i>	

Doric capitals and column drums from Modi in Phocis .....	339
---	-----

*Nils Hellner – David Scahill*

Ταφές των Πρώιμων Αυτοκρατορικών Χρόνων από την Υάμπολη στην ανατολική Φωκίδα .....	349
--	-----

*Μαρία Παπαγεωργίου – Δημήτρης Γρηγορόπουλος*

## Sites of memory in ancient Phocis

The Thessalian-Phocian battles, the Persian Wars, and the changing religious landscape .....	371
---	-----

*Elena Franchi*

A transfer of sacred lands from eastern Phocis, IG IX1, 87 .....	383
--	-----

*Jeremy McInerney*

Kalapodi 2014–2016: Investigating the surroundings, limits and infrastructure of the sanctuary .....	397
---	-----

*Katja Sporn*

Ritual burials of temples and ritual depositions accompanying building activities in the oracle sanctuary of Apollon at Abai/ Kalapodi .....	409
--	-----

*Wolf-Dietrich Niemeier*

## The bronze finds from the Late Geometric ›South Temple 6‹ at Kalapodi

Cult practices and local craft traditions in eastern Phocis .....	421
---	-----

*Gudrun Klebinder-Gauß*

The significance of the sanctuary of Kalapodi during the Archaic period based on the pottery finds .....	439
---	-----

*Michaela Stark*

A palette of bronze and silver: the monetary perspective of the archaeological site at Kalapodi .....	455
--	-----

*Hristina Ivanova-Anaplioti*

New iron finds from the 2016 campaign in Kalapodi – Contexts and compositions .....	469
--	-----

*Sandra Zipprich*

A bronze foundry of Classical times in the sanctuary at Kalapodi .....	479
<i>Johanna Fuchs</i>	

Pagan twilight at Kalapodi: Two pottery assemblages of the third and fourth centuries A.D. ....	491
<i>Dimitris Grigoropoulos</i>	



# Kalapodi 2014–2016: Investigating the surroundings, limits and infrastructure of the sanctuary

*Katja Sporn*

Long-term excavations in the sanctuary of Kalapodi have been conducted in two major periods. But even before their start, travellers from the late 17<sup>th</sup> century on (George Wheler 1689, later William Gell in 1819, William Martin Leake 1835) had already mentioned ruins of a temple, and in 1906 Georgios Sotiriadis undertook the first short-term excavation, referring to the existence of several buildings, temples or stoas<sup>1</sup>. Unfortunately, the precise location and extent of his excavation remains unknown. Doric column drums scattered in the area of Kalapodi were later collected in the vicinity of the sanctuary.

Rainer Felsch led the first systematic excavations between 1973 and 1982, guided to the site by visible surface sherds dating back as far as the Mycenaean period. In long narrow test trenches vertically set against the slope, he first detected the remains of a classical Doric temple built in poros stone – later to be called the Northern Temple – whose krepis had been found partly dismantled, but partly preserved even

up to the floor of the cella (*fig. 1*). A lot of archaic and earlier architectural material scattered around and re-used in the foundations indicated the existence of a predecessor. Felsch also found and partly excavated the Southern Temple, and he noted that the material in that particular area goes back to Mycenaean times<sup>2</sup>.

Wolf-Dietrich Niemeier resumed the excavations in the Southern Temple between 2004 and 2013, since he was interested in the continuity of the cult from the Bronze Age to the Early Iron Age. Through these excavations, it was possible to detect 13 architectural phases of the sanctuary from Late Helladic IIIA 1 down to Roman times<sup>3</sup>.

This was the situation when in 2014 we started a new project whose aims are reflected in the title of this paper<sup>4</sup>. The main question was: if Kalapodi is the sanctuary of Apollo at Abae, as suggested by the recent research as opposed to the earlier idea which favoured the sanctuary of Artemis at Hyampolis,

<sup>1</sup> Σωτηριώδης 1906, 144 f. In general on the older investigations: Felsch – Kienast 1975.

<sup>2</sup> Main literature regarding this phase of the excavations: Felsch 1980; Felsch et al. 1987; Jacob-Felsch 1996; Felsch 2007.

<sup>3</sup> On these excavations and the extraordinary results on the Mycenaean phases and the transition to the Early Iron Age, see mainly Niemeier 2013; Niemeier 2016; Niemeier 2018.

<sup>4</sup> A preliminary report on the years 2014 to 2016 has been published, see Sporn et al. 2016/2017. After the publication of this longer report, which had not appeared by the time the conference was held in 2016, the current paper can be read as an English summary of this longer preliminary report in German. On the later investigations up to 2021 see now: Sporn 2017; Sporn 2021; Sporn, forthcoming.



1 Northern temple from west, excavation 1977

what is Abae and where is Abae? What is the connection of the site with a settlement? And how is the sacred and profane space of the sanctuary organised?

We started a cooperation with the ›Institute of Geosciences – Applied Geophysics‹ at Kiel University<sup>5</sup> in order to undertake geophysical prospecting in the surroundings of the temples. Actually, there had already been initial geomagnetic prospections in 1976 and 1977 by Helmut Becker<sup>6</sup>. The visible geophysical anomalies were back then tentatively interpreted as remains of kilns, but also of a propylon, a theatre, and the peribolos wall of the sanctuary. The new investigations, which cover a total area of 7.2 ha, included magnetic and geoelectric prospecting, while the

ground-penetrating radar was only tested and it delivered very limited results.

The results testify to the existence of a settlement with a street leading towards the sanctuary from the west and vertically crossing other streets (marked in red in *fig. 2*). Especially promising seems to be a huge anomaly (A1, ca. 9 × 13 m) at a distance of exactly 48 m from the east of the Southern Temple and with the same orientation. This was surveyed furthermore with ground-penetrating radar and geo-resistivity, and the structure can be detected to a depth of ca. 2 m below the current surface. A north-south oriented anomaly exactly west of this structure (marked in black) could belong to the boundary (wall?) of the sanctuary to the west, while at the point where this

<sup>5</sup> Cooperation with Wolfgang Rabbel, Harald Stümpel and Katharina Rusch.

<sup>6</sup> H. Becker in: Felsch 1980, 119–123; see now H. Stümpel – K. Rusch – W. Rabbel in: Sporn et al. 2016/2017, 199–204.



2 Geophysical investigations 2014–2016 (scale 1:2000)

demarcation meets the street from the west, an entrance might be expected.

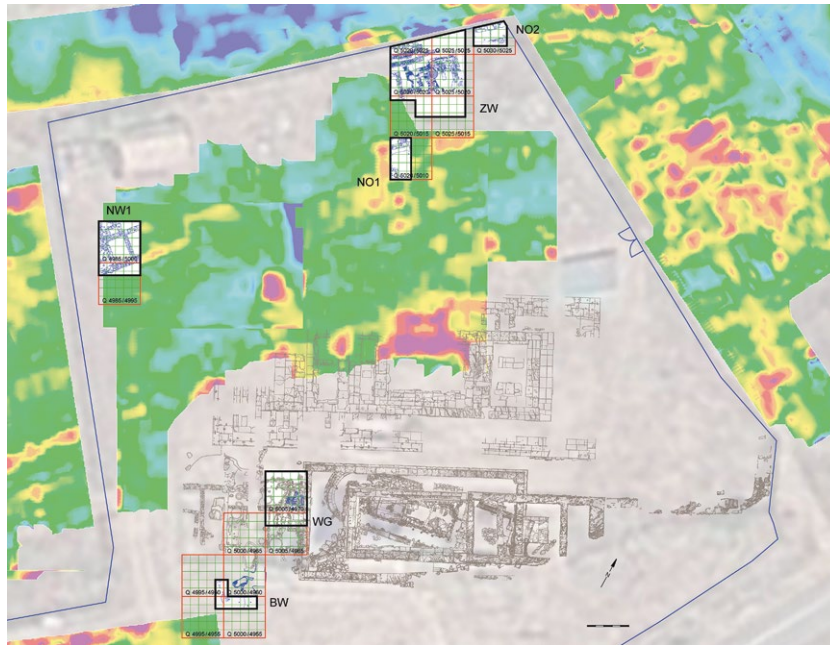
To the west and to the south of the temple area there are huge linear anomalies in a southwest-northeast direction, testifying to the existence of buildings and/or streets. Their orientation is different from that of the archaic temples. In order to understand their identity and date, we opened a test trench (NW 1) in the interior of the archaeological site (in yellow, 0.54 ha), which will be discussed below. To the northwest of the site, there are indications for building activities only up to a distance of ca. 30 m of the Northern Temple. To the north, directly outside the corner of the fenced area, further anomalies were found with a different orientation than those on the southwest side: A2 has the size of  $8 \times 5$  m (traceable up to 1.5 m below surface) and lies parallel to the Archaic/Classical temples, while structure F seems to be a geological feature.

In the years 2015 and 2016, we conducted excavations in trenches in two areas to test the results of the geophysics (*fig. 3*). While trench NO 1 (anomaly  $2.5 \times 4.5$  m, trench  $2.5 \times 5.0$  m) yielded only one late

Roman or Byzantine wall leading east-west, which did not correspond well with the results of the geophysical prospections, NW 1 was a very instructive test trench (sized  $4 \times 4$  m). Indeed, the two parallel walls indicated in the prospecting were found, but in-between was a huge destruction layer with tiles. Quite strangely, the impressive large column drum of the late classical temple II was not to be seen in the electrics, which is a challenge for the geophysicists.

Trench NW 1 is very interesting for several reasons: first, the huge anomalies which can be seen both in the geomagnetic and geoelectric results, belong to an architecture which, although it contains many spolia of the late classical temple, is clearly of Roman or Late Roman date. The date was determined more precisely thanks to some 14 coins partly found in well stratified contexts. The numismatic finds (*fig. 4*), which are being studied by Hristina Ivanova, as well as the pottery from these contexts, which is being studied by Dimitris Grigoropoulos, date to the Roman, Late Antique and Byzantine periods<sup>7</sup>. Very instructive is the northeast section of the trench (*fig. 5*). The lower part of the southern wall, which is a rubble structure, was

<sup>7</sup> See D. Grigoropoulos in: Sporn et al. 2016/2017, 233–246; H. Ivanova in: Sporn et al. 2016/2017, 246–256; as well as the contributions of both of them in this volume 453–466 (Ivanova-Anaplioti), 491–514 (Grigoropoulos).



3 Test trenches 2015/2016

founded after destruction, due to fire. The ash layer related to this fire contained a coin (KAL 16.122.01) of an Antonine Caesar between Antoninus Pius and Marc Aurelius (A.D. 130–180), which is a *terminus post quem* for the founding of this rubble wall. The destruction layer of this wall is the lower tile package, found in 2016, which has a *terminus post quem* dated to Gordian III (A.D. 244). Right on top of this rubble wall, maintaining the same direction, the wall containing spolia was founded. Its destruction corresponds with the massive upper tile package found in that trench weighing 1,136 kg that can be dated later than A.D. 348–351, according to coin KAL 16.101.001 of Constantius II. Both the coins and the pottery indicate a use of the area until at least the 6<sup>th</sup> century A.D., according to the pottery probably even until the early 7<sup>th</sup> century A.D. No glazed pottery of later date has been found yet. The function of the area still remains unclear, but the mainly local character of the pottery, with few imports, the large amount of coarse ware and the quite rare amphorae are remarkable. It would be very important to explore the continuation of this larger spoil architecture to the west, but this area lies outside the territory of the current archaeological site.

During the years 2015 and 2016, we also resumed excavations in older trenches. One of them lies in the area north of the northern temple (ZW; *fig. 6*). Here, in 1977, Felsch had unearthed a kiln, and partly a sec-

ond one west of it. Since he had tentatively suggested that this could be the tile kiln for firing the tiles of the classical northern temple, we thought it useful to clarify its date and the type of tiles fired in it. Furthermore Felsch had suggested for the wall behind it a function as a peribolos. So, a second aim of this trench was to clarify the wall's function and date.

After two years of research, the results were the following<sup>8</sup>: There are two kilns in the trench, and their construction was being studied by Wolfgang Czysz (†), a specialist on ancient Roman kilns. Both of the kilns have been built completely with broken tiles of mainly Laconian type (not larger than 20–30 cm) which were fixed with clay mortar. The older, and slightly smaller one is the western kiln 2 (outer dimensions 3.35 × 2.7 m). Since in the working space in front of the kiln area a massive layer of nearly only Hellenistic pottery material was found in 2015, including fragments of a mould of a so-called Megarian bowl, some over-fired pottery waste and pottery ware which was brand-new (without traces of use), this older kiln might be a pottery kiln. This goes well with the curved interior of the kiln, a construction detail which differentiates it from the second one. Furthermore, there was quite a large number of loom-weights, to a lesser extent also spindle whorls, and peculiar, rounded pottery fragments of different size, both coarse and fine ware.

<sup>8</sup> See Felsch 1980, 108 f.; Sporn et al. 2016/2017, 217–226 (with contributions by W. Czysz, E. Laufer and K. Sporn).



4 Numismatic evidence from  
the excavation season 2016

The later kiln 1 has outer dimensions  $4.1 \times 3.4$  m. Both of the kilns belong to the type of the so-called updraught kiln of quadrangular layout, which is known from Hellenistic times onwards in Greece and elsewhere and was particularly common in Roman Greece, especially Central Greece<sup>9</sup>. Since both of the kilns were completely cleaned after their last use (they had been repaired and altered quite often, which is common for kilns), it is not certain what was fired in their interior. Due to the size, it can be suggested that the larger eastern kiln 1 was used for fir-

ing tiles, but it is not known which kind of tiles, because the kiln itself is built of tiles; no single clear product of it could be identified.

Regarding the retaining wall of local limestone on the back side of the trench (visible in *fig. 6* on the right), which is preserved up to a height of ca. 2.3 m, the blocks are quite regular ashlar of different size. So far, it is uncertain whether the wall was built into the earth with only one visible side to the south or there was another one to the north. Due to the descent, there might have been just one. Since north of

<sup>9</sup> See Hasaki 2002, pl. III 13 (type IIIC); see now on kilns in Roman Greece Hasaki – Raptis 2016.



5 Northeast section of trench NW 1, 2016

it, on the other side of the modern-day fence, the geoelectric investigations over a long distance couldn't trace any anomalies, this might in fact have been the northern peribolos wall of the sanctuary. In the coming excavation season, we will open some test trenches to the north and east of the fenced area to see whether there is a continuation<sup>10</sup>.

In 2016 we excavated in one area down to the base of the wall and tried to find the foundation trench. Unfortunately, there was none. The wall was built directly onto the clayish natural ground. Nevertheless, we were able to find some clues as to the date of the wall. In the course of the excavation, it turned out that in the whole excavated area south of the wall there had been depositions of waste from the sanctuary, which according to the first estimation (the material has not been fully studied yet) has to be dated mainly to the 6<sup>th</sup> century B.C., but there were also some sherds from the first half of the 5<sup>th</sup> century B.C. The material mainly consists of pottery, among other styles also Corinthian pottery, mainly skyphoi, sometimes with graffiti like a kotyle with the incised inscription Amyndros, but also Attic black glazed ceramics – the usual spectrum of pottery which was noted in earlier excavations on the site. Besides, the finds of both iron and bronze items was remarkable, among them obeloi and knives, spearheads and ferrules, swords, rims of shields, and, most remarkably, a nearly totally preserved Corinthian helmet dating before the middle of the 6<sup>th</sup> century B.C., belonging to the Myron group<sup>11</sup>. The weapons and the helmet were

intentionally bent and thus put out of use, which means that they were used as dedications in the sanctuary.

In some connection with this backfill was a peculiar structure delineated by walls A, B, and C, which was unearthed in 2016, the western end of which is not yet known (*fig. 6 back right*)<sup>12</sup>. The space between wall A and the parallel wall C is ca. 1.2 m wide. In this area, a lot of the bronze and iron material was found, especially the helmet. The newly found southern wall C has a peculiar technique: above a layer with irregular stones, there is a layer of broken Corinthian tiles of Archaic date, on which lies a layer of regular ashlar blocks. A similar technique has been noted in the foundations of the classical provisional building in the northern temple (480–450 B.C.)<sup>13</sup>.

This whole structure is exactly at the spot where the retaining wall has leant forward, probably due to earth pressure from the slope of the hill above. Therefore the second wall might have served a double purpose: to stabilise the area of the retaining wall, but since this distance of 1.2 m was left on purpose, it possibly also intentionally delineated a space, maybe even as a kind of a deposit. The upper end of the wall corresponds in its height with an intentional recess in the retaining wall: this could have been closed and sealed with plaques or beams, although no signs of them have been preserved.

The history of the use of the space can be summarised as follows: first a possible Archaic retaining wall (A) was built; after the Persian destruction and due to the earth pressure additional walls (B and C) were added in front of it. In later times, the kiln area was inserted into that backfill at the slope, a usual situation for kilns. Even later, the phase shown in ochre, walls of some later housing (living quarters?) were built on top of the kilns, which by that time had fallen out of use. The material has not been fully studied, but since some sherds from the 3<sup>rd</sup>/4<sup>th</sup> century A.D. were part of the building material, the latter must belong to a late Antique/early Byzantine phase. These walls cannot yet be correlated to the walls in the other trenches.

In order to find the continuation of the retaining wall A to the east, the small trench NO 2 (4 × max. 3 m) was opened in 2016 (*fig. 3*). The results of this trench

<sup>10</sup> A test trench cut in 2017 north of the retaining wall confirmed this hypothesis, see Sporn 2017, 80–82 figs. 2, 3.

<sup>11</sup> Sporn 2016/2017, 220 f. fig. 22.

<sup>12</sup> Although the excavation continued there in 2017, the end could not be detected.

<sup>13</sup> W. Schuler in: Felsch et al. 1980, 85 f. although there the upper part of the wall was made out of mudbrick and the layer of tiles was interpreted as insulation against the humidity. Maybe this interpretation should be adopted again here.



6 Kiln area from northeast

were surprising: we did not find one, but two parallel sections of walls in an East-West direction. The northern wall continues the line of the retaining wall, but on a higher level and in a totally different masonry style. The southern wall does not correspond to any wall in the trench of the kilns yet. Both walls were built with spolia, this time large ashlar blocks combined with small pieces of column drums. The visible frontal parts were very well re-worked in situ with fine chisels. The workmanship is known from late Archaic and Classical times, but the trench was too small to determine both the date and the function of these two walls<sup>14</sup>.

Finally, excavations have been resumed in the area west of the southern temple. Firstly, in the area of the Classical bronze foundry, which Johanna Fuchs is currently studying<sup>15</sup>. Secondly, at the western pediment of the Archaic temple which had fallen down in the Persian destruction<sup>16</sup>. It had been found in situ in 2008, but was left in place because of the difficult

state of preservation (due to the fire following the Persian attack) – a conservation study had to be conducted first. This task was undertaken by Ioanna Dogani and Amerimni Galanou in 2016; the orthostates were chemically fixed and mended with small titanium nails<sup>17</sup>. It was considered useful to lift one orthostate (O2) in order to see whether the pediment was decorated with sculpture, inscriptions or at least colour. The results were surprising: Besides further finds of tools in the architectural context (*fig. 7*) – a situation which is very characteristic for Kalapodi<sup>18</sup> – two antefixes of the so-called horn-type were found below the orthostate. According to the study by Nils Hellner and inspired by an older, unpublished idea of Rainer Felsch's, these antefixes, which are of a slightly different type than the ones from the long side of the temple, were part of a clay sima with 17 antefixes set up in the pediment of the Archaic temple, whose tympanum was covered only with a kind of marble dust. The length of 11.47 m corresponds exactly to

<sup>14</sup> The excavation there was continued in the following years and the remains of the Hellenistic/Roman north-eastern building were found, see Sporn 2017.

<sup>15</sup> See Fuchs 2019 and Fuchs in this volume 479–489.

<sup>16</sup> See N. Hellner in: Sporn et al. 2016/2017, 206–209.

<sup>17</sup> See I. Dogani – A. Galanou in: Sporn et al. 2016/2017, 267–269.

<sup>18</sup> See Hellner 2018 and for the new finds Zipprich in this volume 469–478.



7 Iron tools from the excavation below the western pediment, 2016 (scale 1:5)

18 hegemonēs × 58 cm, the size of a strotē. This result is only surprising at first sight, since a similar reconstruction had already been proposed for Kalydon, and there are parallels from Central Italy<sup>19</sup>. Surely, this first clear proof of a horizontal clay sima inside the pediment will stimulate further discussions on Doric architecture and its decoration.

Both the local community of Kalapodi and the Ministry of Culture would like to provide access to the site, especially to make the excavations in the southern temple complex visible to the public. Since

2015, the work in Kalapodi has been accompanied by restoration and site management plans. The site management plan has been made by Themistoklis Bilis and Maria Magnisali and approved by the KAS. With the accomplishment of the restoration and conservation of the southern temple complex between 2018 and 2021, the opening to the public became a step closer<sup>20</sup>.

Athens

Katja Sporn

## Address

Prof. Dr. Katja Sporn  
Deutsches Archäologisches Institut  
Abteilung Athen  
Fidiou 1  
10678 Athens  
Greece  
katja.sporn@dainst.de

<sup>19</sup> See Dyggve 1948, 316–310 figs. 288. 289. 292–294.

<sup>20</sup> On the site management plan and the initial ideas about a new shelter, see Bilis – Magnisali in: Sporn et al. 2016/2017, 259–267. The plans were re-evaluated in 2017 and with approval from the Ministry of Culture and Sports the restoration program started in 2018, s. Bilis 2021.

**Sources of illustrations:** Fig. 1: D-DAI-ATH-2017-19997 (Grabungsarchiv Kalapodi). – Fig. 2: H. Stümpel. – Fig. 3: DAI Athen, KAL16\_P001 (H. Birk). – Fig. 4: DAI Athen, Grabungsarchiv Kalapodi (photos H. Ivanova, montage H. Birk). – Fig. 5: D-DAI-ATH-2016-09140 (photographer unknown). – Fig. 6: D-DAI-ATH-2016-08708 (photographer unknown). – Fig. 7: D-DAI-ATH-2016-09723 and D-DAI-ATH-2016-09729 (photos A. Wirsching, montage H. Birk).

# Bibliography

- Bilis 2021** Th. Bilis, Καλαπόδι. Έργα ανάδειξης και αναστήλωσης, *Archaologia kai Technes* 136, 2021, 56–65
- Dyggve 1980** E. Dyggve, Das Laphrion. Der Tempelbezirk von Kalydon (Copenhagen 1948)
- Felsch 1980** R. Felsch, Apollon und Artemis oder Artemis und Apollon? Bericht von den Grabungen im neu entdeckten Heiligtum bei Kalapodi, 1973–1977, *AA* 1980, 38–118
- Felsch 2007** R. C. S. Felsch, Zur Stratigraphie des Heiligtums, Kalapodi 2 (Mainz 2007)
- Felsch – Kienast 1975** R. C. S. Felsch – H. Kienast, Ein Heiligtum in Phokis, *AAA* 8, 1975, 1–24
- Felsch et al. 1987** R. C. S. Felsch, Kalapodi. Bericht über die Grabungen im Heiligtum der Artemis Elaphebolos und des Apollon von Hyampolis, 1978–1982, *AA* 1987, 1–99
- Fuchs 2019** J. Fuchs, A Bronze Foundry of Classical Times in the Sanctuary at Kalapodi (Central Greece), in: Ph. Baas, *Proceedings of the XX<sup>th</sup> International Congress on Ancient Bronzes. Resource, Reconstruction, Representation, Role* (Oxford 2019) 319–329
- Hasaki 2002** E. Hasaki, Pottery Kilns in Ancient Greece. Technology and Organization of Ceramic Workshops, Ph.D. diss. University of Cincinnati 2002, <[https://etd.ohiolink.edu/apexprod/rws\\_olink/r/1501/10?p10\\_etd\\_subid=78908&clear=10](https://etd.ohiolink.edu/apexprod/rws_olink/r/1501/10?p10_etd_subid=78908&clear=10)> (31.5.2022)
- Hasaki – Raptis 2016** E. Hasaki – K. T. Raptis, Roman and Byzantine Ceramic Kilns in Greece (1<sup>st</sup>–15<sup>th</sup> cent. CE): Continuities and Changes in Kiln Typology and Spatial Organization of Production, in: N. Cucuzza – B. M. Giannattasio – S. Pallecchi (eds.), *Archeologia delle produzioni ceramiche nel mondo antico. Spazi, prodotti, strumenti e tecniche. Atti del convegno* (Genova, 1–2 dicembre 2014), *Quaderni di archeologia – Genova* 1 (Ariccia 2016) 209–229
- Hellner 2018** N. Hellner, Überlegungen zum Gebrauch von singulären Werkzeugfunden unter dem archaischen Tempelbau von Abai/Kalapodi, in: M. Korres – S. Mamaloukos – K. Zambas – F. Mallouchou (eds.), *HPΩΣ ΚΤΙΣΤΗΣ. Μνήμη Χαραλάμπου Μπούρα I* (Athens 2018) 293–300
- Jacob-Felsch 1996** M. Jacob-Felsch, Die spätmykenische bis frühprotogeometrische Keramik, Kalapodi 1 (Mainz 1996)
- Niemeier 2013** W.-D. Niemeier, Das Orakelheiligtum des Apollon von Abai/Kalapodi, eines der bedeutendsten griechischen Heiligtümer nach den Ergebnissen der neuen Ausgrabungen, *TrWPr* 2013
- Niemeier 2016** W.-D. Niemeier, Ritual in the Mycenaean Sanctuary at Abai (Kalapodi), in: E. Alram-Stern – F. Blakolmer – S. Dager-Jalkotzy – R. Laffineur – K. Weilhartner, *Metaphysis. Ritual, Myth and Symbolism in the Aegean Bronze Age. Proceedings of the 15<sup>th</sup> International Aegean Conference, Vienna, Institute for Oriental and European Archaeology, Aegean and Anatolia Department, Austrian Academy of Sciences and Institute of Classical Archaeology, University of Vienna 22–25 April 2014* (Leuven 2016) 303–310
- Niemeier 2018** W.-D. Niemeier, The Oracle Sanctuary of Apollo at Abai/Kalapodi from the Bronze to the Iron Age, in: A. Mazarakis Ainian – A. Alexandridou – X. Charalambidou (eds.), *Regional Stories towards a New Perception of the Early Greek World, Symposium Volos 2015* (Volos 2018) 323–342
- Σωτηριάδης 1906** Γ. Σωτηριάδης, Φωκίς, *Prakt* 1906, 140–145
- Sporn et al. 2016/2017** K. Sporn, Forschungen zur Anlage, Ausdehnung und Infrastruktur des Heiligtums von Kalapodi. Die Kampagnen 2014–2016. Mit Beiträgen von Mila Andonova – Stefan Biernath – Themistoklis Bilis – Wolfgang Cysz – Ioanna Dogani – Alicia Ferretti – Anne Fohgrub – Johanna Fuchs – Amerimni Galanou – Dimitris Grigoropoulos – Nils Hellner – Thomas Hintermann – Hristina Ivanova – Eric Laufer – Alexandra Livarda – Maria Magnisali – Wolfgang Rabbel – Katharina Rusch – Harald Stümpel – Sandra Zipprich, *AM* 131/132, 2016/2017, 173–278

**Sporn 2017** K. Sporn, Kalapodi, *AtheNea* 2017, 80–85

**Sporn 2021** K. Sporn, Καλαπόδι. Ένα εθνικό ιερό των Φωκέων με μακρά ιστορία, in: *Αρχαιολογία και Τέχνες* 136, 2021, 44–56

**Sporn forthcoming** K. Sporn, Καλαπόδι Φθιώτιδας: Οι νέες έρευνες σχετικά με την έκταση, τη διαρρύθμιση και τις υποδομές του ιερού, in: A. Mazarakis-Ainian – A. Batziou (eds.), 6ο Αρχαιολογικό Έργο Θεσσαλίας και Στερεάς Ελλάδας, 2015–2017. Από τους προϊστορικούς στους νεώτερους χρόνους (forthcoming).

# Zusammenfassung – Abstract – Περίληψη

## Kalapodi 2014–2016: Untersuchung der Umgebung, der Grenzen und der Infrastruktur des Heiligtums

---

**Zusammenfassung** Der Beitrag stellt die Ergebnisse der Feldforschungen der Jahre 2014–2016 in Kalapodi im Projekt ›Untersuchungen zur Anlage, Ausdehnung und Infrastruktur des Heiligtums von Kalapodi‹ zusammenfassend vor. Den Anfang bildeten geophysikalische Prospektionen in der Umgebung des Heiligtums, die bald von gezielten Sondagen zur Überprüfung der geophysikalischen Anomalien, aber auch der Gestalt und Datierung einer möglichen Temenosmauer, der klassischen Bronzeworkstatt und möglicher Nebenbauten des Heiligtums gefolgt wurden. Nach der Vorlage eines Restaurierungskonzepts für den in Sturzlage befindlichen Westgiebel des Südtempels konnte die Bergung des Giebels sowie eine Grabung in diesem Bereich durchgeführt werden. Schließlich wurde auch ein Site-Management-Plan für das gesamte Areal vorgelegt.

**Schlagwörter** Kalapodi, Heiligtum, Giebel, Temenos, Bronzeworkstatt

## Kalapodi 2014–2016: Investigating the surroundings, limits and infrastructure of the sanctuary

---

**Abstract** This paper summarises the results of the field research carried out in 2014–2016 in Kalapodi within a project called ›Untersuchungen zur Anlage, Ausdehnung und Infrastruktur des Heiligtums von Kalapodi‹. Work began with geophysical prospections in the vicinity of the sanctuary and was soon followed by targeted excavations to check the geophysical anomalies, but also the shape and date of a possible temenos wall and the sanctuary's classical bronze workshop and possible outbuildings. After submitting a restoration plan for the collapsed west pediment of the South Temple, the latter was salvaged and excavations carried out in this area. Finally, a site management plan for the entire area was also submitted.

**Keywords** Kalapodi, sanctuary, pediment, temenos, bronze workshop

## Καλαπόδι 2014–2016. Ερευνώντας τον περιβάλλοντα χώρο, τα όρια και τις υποδομές του ιερού

---

**Περίληψη** Αυτή η εργασία συνοψίζει τα αποτελέσματα της έρευνας πεδίου που πραγματοποιήθηκε στο Καλαπόδι το 2014–2016 στο πλαίσιο του προγράμματος «Untersuchungen zur Anlage, Ausdehnung und Infrastruktur des Heiligtums von Kalapodi [Έρευνες για τη διάταξη, την έκταση και τις υποδομές του ιερού στο Καλαπόδι]». Οι εργασίες ξεκίνησαν με γεωφυσικές διασκοπήσεις γύρω από το ιερό και γρήγορα ακολούθησαν στοχευμένες δοκιμαστικές ανασκαφές για να ελεγχθούν οι γεωφυσικές ανωμαλίες, αλλά επίσης και η μορφή και χρονολόγηση ενός πιθανού τείχους του τεμένους, καθώς και του κλασικού εργαστηρίου χαλκού και πιθανά δευτερεύοντα κτίσματα. Μετά την υποβολή μελέτης συντήρησης για το δυτικό αέτωμα του Νότιου Ναού που βρισκόταν στη θέση κατάρρευσής του, το τελευταίο διασώθηκε και έγιναν ανασκαφές στην περιοχή. Τέλος, υπεβλήθη ένα σχέδιο διαχείρισης για όλο τον αρχαιολογικό χώρο.

**Λέξεις-κλειδιά** Καλαπόδι, ιερό, αέτωμα, τέμενος, εργαστήριο χαλκού