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Department of Archaeology and Ancient History
Box 626
SE-751 26 Uppsala

EDITOR:

Dr Jenni Hjohlman, Stockholm
E-mail: jenni.hjohlman@antiken.su.se

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Labraunda 2009

A preliminary report on the Swedish excavations with contributions by Jesper Blid and Olivier Henry

Abstract

The 2009 campaign in Labraunda accomplished three goals: the termination of the excavations in the Byzantine fort on the Acropolis and in the Late Roman Tetraconch and the complete excavation of the impressive marble chamber tomb along the Sacred Way. In the Acropolis Fortress, evidence was found to support the military character of the Byzantine establishment: the rooms along the fortification wall were paved and had a rectangular shape, suggesting defensive rooms. In these rooms sling stones were found. Structures dating from the Hekatomnid period were further investigated this year, and a well cut into the gneiss bedrock was excavated. In the Tetraconch, the north apse was excavated down to bedrock and a coin from Constantius II (348–357/8) suggests an *ante quem* dating for this unique and sophisticated structure. The geophysical investigations indicated that a church is located on the terrace below the Tetraconch and a first sondage was conducted here. The large marble chamber tomb was completely excavated and emptied of its content. Small pieces of pottery indicate a date in the middle of the fourth century BC. The extensive geophysical survey was carried out at five different areas around the Sanctuary, in order to achieve a better picture of the entire Sanctuary, as the early excavations had involved only its central part. Evidence for several previously unknown structures came to light: possibly a temple on the East Stoa terrace and further bath buildings at the East Bath, as well as several unexcavated tombs.

Introduction*

The Sanctuary of Zeus Labraundos is located in the ancient landscape of Karia in southwestern Turkey, 14 km north of the city of Mylasa, today's Milas (*Fig. 1*). The central area of the Sanctuary of Zeus with the double axe was excavated by Swedish archaeologists during the period of 1948 to 1953 (*Figs. 2–3*). Since that time, scholars have been involved in the publication and study of the results of those excavations, including buildings and finds.

The new studies, which include scientific archaeological excavations, have concentrated on three research areas, none of which has been the objects of previous study. They are (1) the forts and fortresses surrounding the Sanctuary and along the Sacred Way, (2) the Late Roman and Early

Byzantine periods inside the Sanctuary, and (3) the necropoleis around the Sanctuary and along the Sacred Way. The work on the publication of the Hekatomnid monumental dining-halls, Andron A and Andron B, are also continuing under the direction of Professor Pontus Hellström and architect Thomas Thieme, who together with surveyor student Anna Thieme participated in this year's campaign.

The excavations of Labraunda's forts included this year continued work at the Acropolis Fortress and a new excavation inside the Ucalan Kule tower. At the Acropolis Fortress, three new rooms were uncovered as well as a Hekatomnid well, which was cleared down to a depth of 6.7 m. Several interesting Hekatomnid roof-tiles with stamps came up from the well. In the Ucalan Kule a trench was laid out inside the tower at the partition wall that divided the tower into two rooms. The discovery of a large quantity of roof-tiles confirms a date in the post-Hekatomnid period for the construction of the tower.

In the context of the study of Labraunda in the Late Antique period, the investigations at the Tetraconch were continued from last year. The entire north apse was cleared down to floor level, and the excavation of the central bay was extended towards the east, uncovering one more row

* I would like to thank the participants in this year's campaign: Prof. Pontus Hellström and Ragnar Hedlund, PhD, both from Uppsala University, PhD student Jesper Blid, Stockholm University, PhD student Naomi Carless Unwin, University of London, and surveyor student Anna Thieme, Stockholm Technical University. Also participating were architect, PhD, Thomas Thieme, Chalmers Technical University, Göteborg, Olivier Henry, PhD from Bordeaux University, France, and archaeology students Turgay Duman and Esra Üner, both from Muğla university, Turkey. Representing the Turkish Ministry of Culture and Museums was Uğur Serden from Corum Museum. The campaign lasted for five weeks from June 22 to July 24, 2009. The excavations were supported with grants from The Royal Swedish Academy of Letters, History and Antiquities, Åke Wibergs Stiftelse, Magn. Bergvalls Stiftelse, Sven and Dagmar Saléns Stiftelse, Gunvor and Josef Anérs Stiftelse, Stiftelsen Harald and Tonny Hagendahls minnesfond, Stefan Lersten and Maggie Dan-Lersten, and The Labranda Society, Sweden. I would also like to thank Professor Lana Troy of Uppsala University for checking the English text.

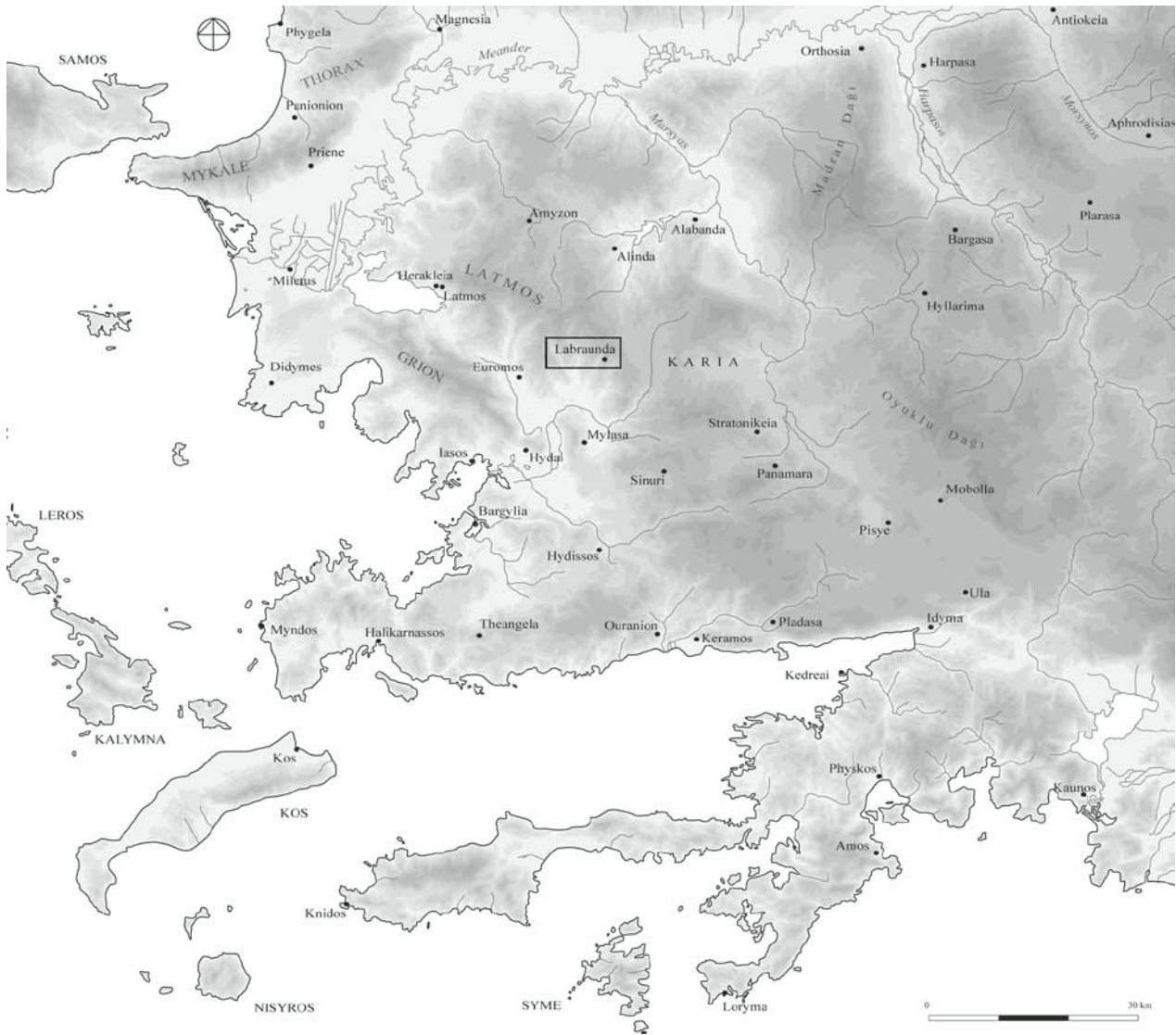


Fig. 1. Map of Karia. By O. Henry.

of tile *pilae*, the supports for the suspended floor of the bath. The high-quality Late Roman pottery from last year continued to appear also in these new extensions inside the Tetraconch. An important discovery from the floor is a coin from the age of Constantius II. It can be dated to the period of AD 348–357/8.

This year's excavation of the Labraunda necropoleis was concentrated on the complete excavation of a large marble chamber tomb of the fourth century BC located along the Labraunda Sacred Way, below the village of Kargıcak. The tomb was discovered three decades ago by tomb robbers but had never been scientifically studied. The excavation of this delicate tomb, built entirely of marble, took three weeks and upon completion a protective surrounding fence with

a gate was erected with an information sign in English and Turkish. Since the tomb had been plundered in Antiquity, only small and broken pieces of the supposedly very rich grave goods could be retrieved. The sections below on the Late Antique investigations and the marble tomb excavations have been written by Jesper Blid and Olivier Henry, respectively.

The geophysical investigations

A very important part of this year's campaign was an extensive geophysical survey by Stefan Giese and Christian



Fig. 2. View of the Temple Terrace with Andron A in the background from the northeast. The watchtower at Ucalan Kule stood on the gneiss outcropping visible in the background near the electrical pylon.



Fig. 4. The geophysical investigation in front of the hypostyle structure.

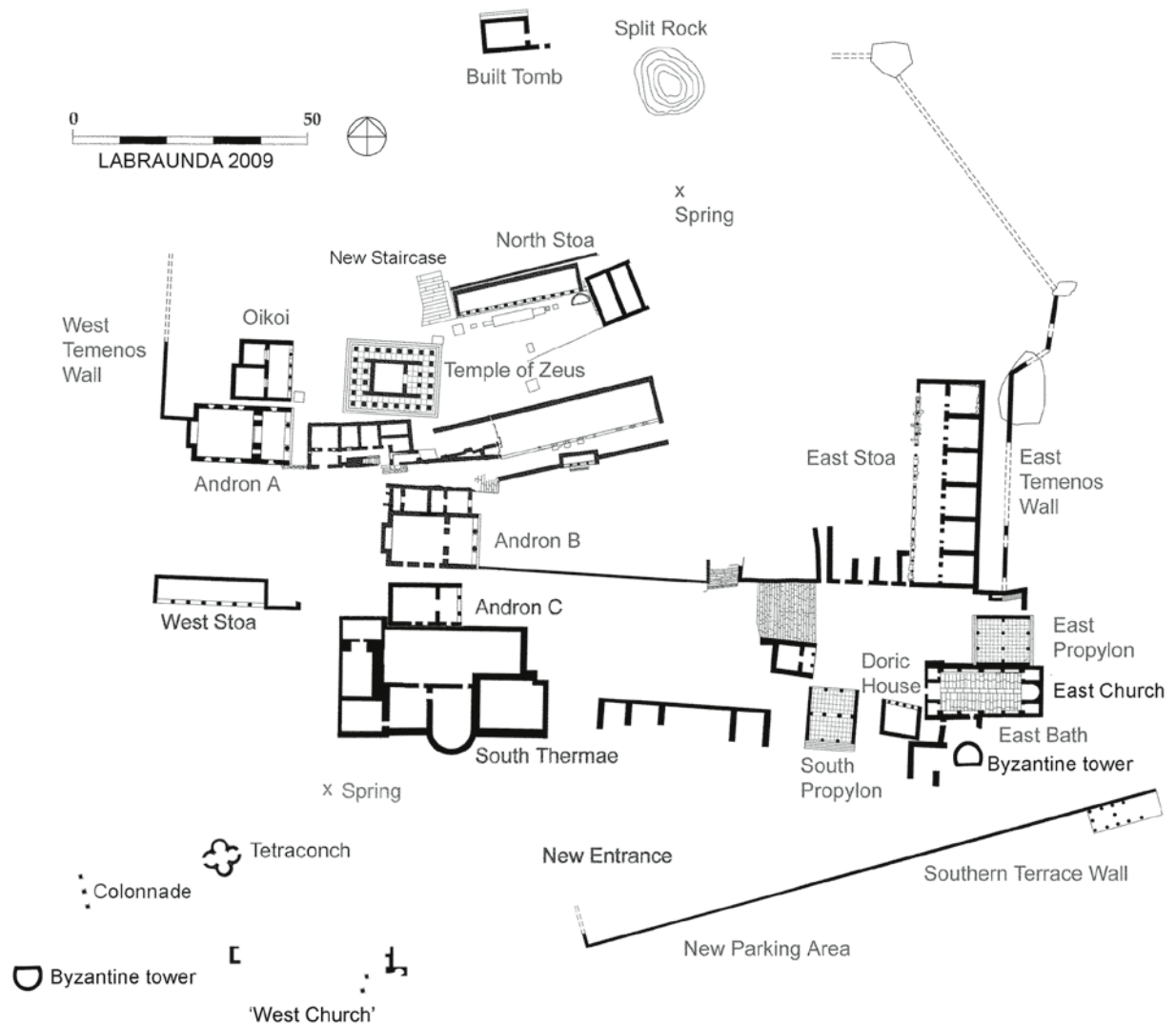


Fig. 3. Plan of the Sanctuary 2009. By J. Blid.

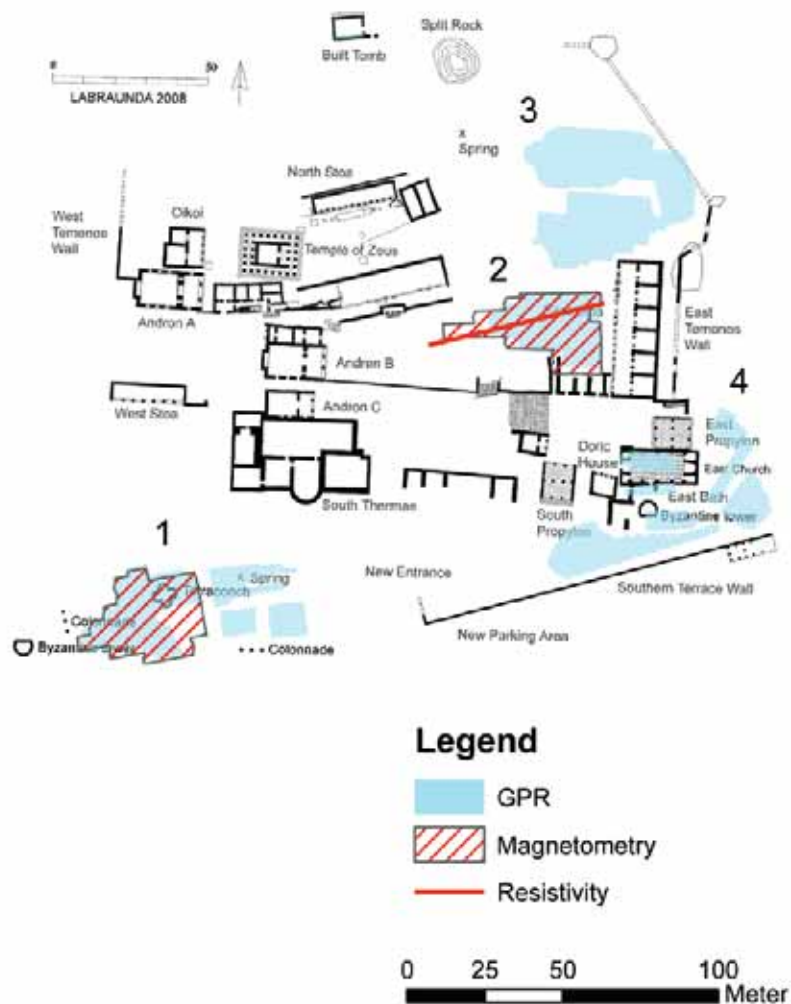


Fig. 5. Plan of the Sanctuary with the geophysical investigations inserted (GGH).

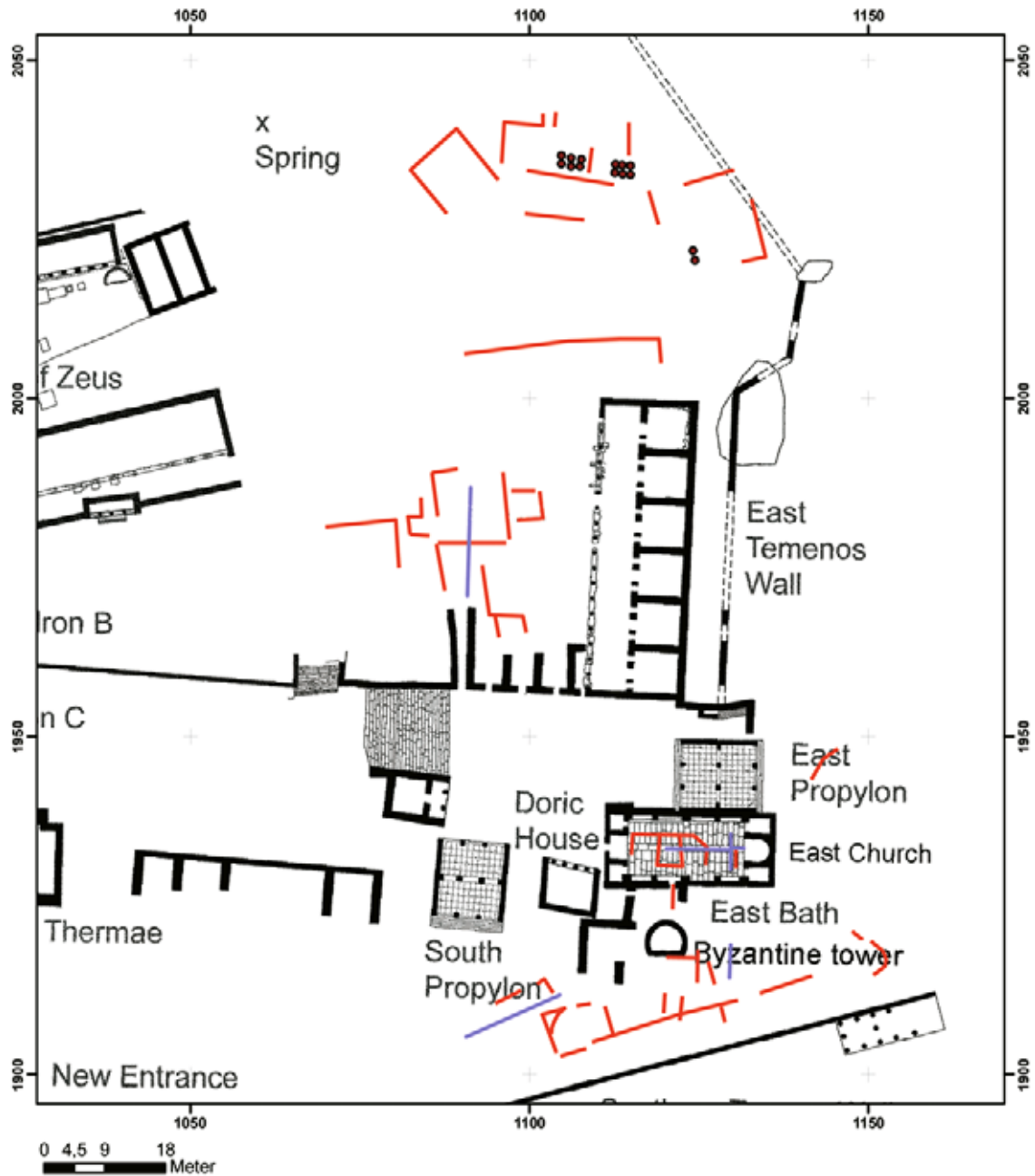
Hübner from Freiburg, Germany (Fig. 4).¹ The investigations were conducted using three different methods: 1) Ground-Penetrating Radar (GPR), 2) Magnetometry, and 3) Electrical Resistivity Tomography (ERT) (Fig. 5).

The early Swedish excavations had been concentrated in the centre of the Sanctuary, around the Temple of Zeus. The results from the search for the surrounding temenos wall in 2003 indicated that there are several unexcavated areas still inside the temenos wall and in several locations, large walls can be traced in the fields. Furthermore, the investigations by Jesper Blid have indicated that Late Antique buildings and church(-es) were placed along the borders of the old Sanctuary or even just outside the temenos wall.

Another aim of the geophysical survey was to improve our understanding of the buildings of the Sanctuary in these late periods. Finally, a section of the necropolis was investigated to record further undiscovered tombs.

The geophysical surveys were thus conducted in five different areas (Fig. 5). In all of them Stefan Giese and Christian Hübner found evidence for structures. The first survey area (Area 1) was also the reason behind setting up the geophysical project. In this area a very unusual bath building, the Tetraconch, was discovered in 2007 and was partly excavated last year. The discovery of the sophisticated Tetraconch illustrated how little we knew about the immediate surroundings of the central Sanctuary buildings. South of the Tetraconch there is a vast terrace and the discovery by Jesper Blid of a marble ambo in this area indicated that a church must have stood here. The GPR registered a series of east-west-oriented walls on this lower platform,

¹ The company's name is GGH, Giese, Grubert & Hübner Gbr, see website www.ggh-online.de.



Legend

- Interpretation point features

Interpretation linear features

- Wall (10)
- Water pipe (20)

GGH
Solutions in Geosciences

Fig. 6. Plan of the eastern area of the Sanctuary with walls indicated by the geophysical survey (GGH).

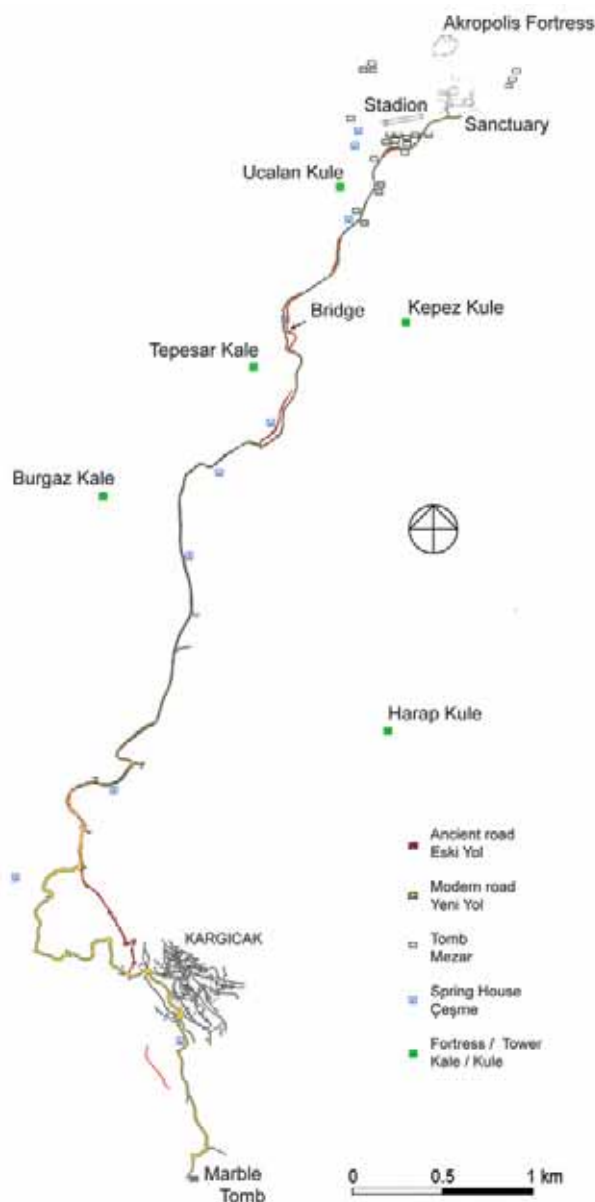


Fig. 7. Map of the Sacred Way with the forts and the Marble Tomb marked. By J. Blid.

and a small sondage was also put down here during the last week of this year's work. The sondage confirmed the geophysicists' results, but the function of the building could not be safely established. The sondage is described by Jesper Blid below. The area will be the subject of a larger investigation in 2010.

The second-most interesting survey area is the vast platform on the terrace west of the monumental Hekatomnid East Stoa (Area 2, Fig. 6). Here all three methods were employed. In the centre of the terrace the investigations

indicated a large rectangular building with a square platform on its west side. This structure could very well be a temple with an altar platform, interesting structures for a future excavation trench. Under this structure the electrical resistivity tomography could identify the main water conduit which carried water to the spring house at the entrance (the Doric House) and the East Roman Bath.

Survey Area 3 was the largest investigated area. It consisted of the entire northeast sector, comprising two terraces north of the East Stoa. This area is located close to the central sanctuary spring and has not been examined by archaeologists. It is conceivable that this area contains priests' dwellings and other administrative buildings for the running of a large sanctuary like Labraunda. The ground-penetrating radar suggested several walls and structures placed in a fan-like arrangement (see Fig. 6), with a section of possible *pilae*, an indication of a hypocaust. Furthermore, there seems to be a stoa running along the north side of the East Stoa terrace.

The fourth area was located south and east of the East Church (Area 4). In this area rooms were found that clearly belong to the unexcavated East Bath. On the platform south of the East Church, a long building with several rooms could be recognized, one of which is probably (semi)circular (see Fig. 6). The East Bath was obviously a very large complex, as it spread out on the terrace south of the East Propylon. The bath complex was supported by the impressively large terrace wall, over 100 metres long, which forms the border of the Sanctuary to the south. This bath complex would be a very interesting project for a future excavation campaign. An investigation was also conducted inside the East Church itself, and here water conduits could be recorded.

Survey Area 5 was located in a part of the necropolis, south of the Stadion, immediately west of the Sanctuary. In this area an unplundered tomb was found in 2007 and the investigations indicated several new tombs, which will be excavated in 2010. Thus, the results of the geophysical investigations are very positive for our overall understanding of the layout of the Sanctuary and function as an excellent complement to the archaeological excavations in areas where no excavations will be undertaken in the near future.

The fortresses

The Sanctuary of Labraunda was surrounded by fortresses, several of them located along the Sacred Way to Mylasa (Fig. 7). In 2007, an excavation was conducted inside the Burgaz Kale, producing evidence for the dating of this fortress to

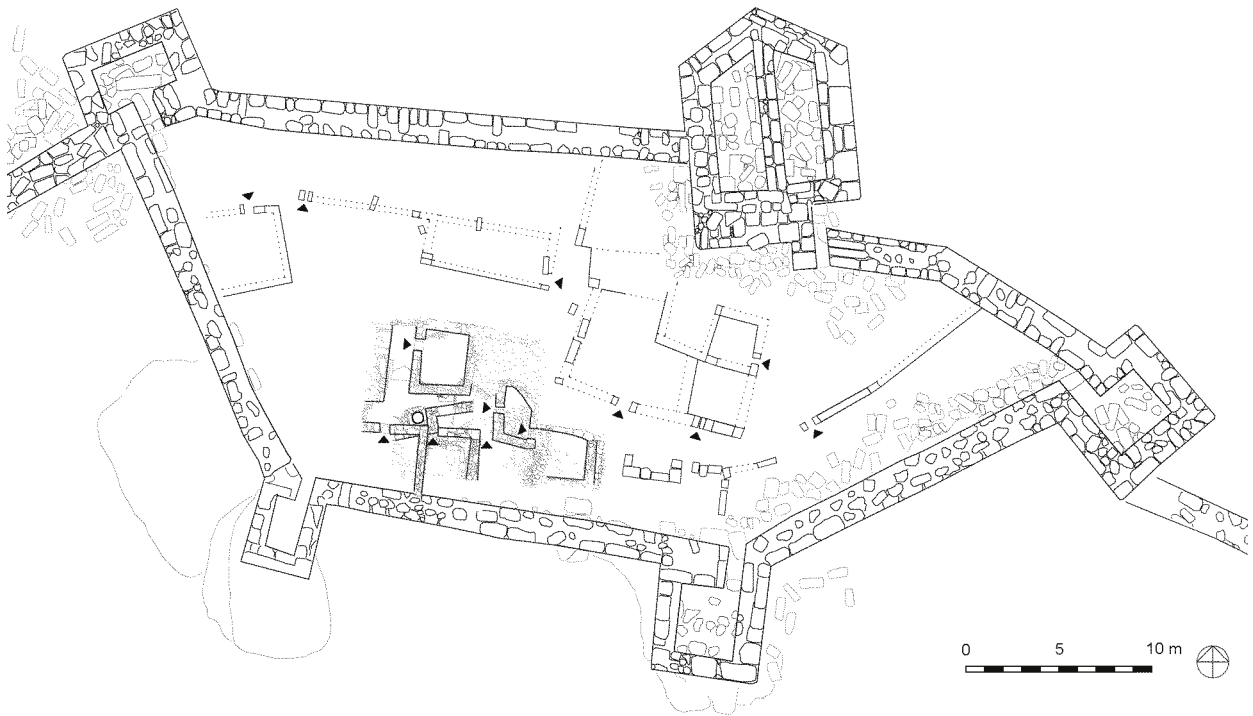


Fig. 8. Plan of the inner fort of the Acropolis Fortress with Byzantine structures indicated. By A. Henry & J. Blid.

the middle of the fourth century BC.² In 2008, a trench was laid out in the inner fort of the Acropolis Fortress above the Sanctuary.³ As this excavation turned out to be important, not only for the remains of the Hekatomnid period but also for the discovery of Middle Byzantine buildings for the first time in Labraunda, the investigations at the Acropolis Fortress were continued this year. In 2010 we plan to excavate the fortress at Tepesar Kale, a large square tower measuring 11.4×11.65 m and in 2011 the smaller watchtowers at Kepez Kule and Harap Kule (see Fig. 7). The Labraunda Project's investigations are unique because they attempt, in a systematic way, to apply a total approach to the defence and protection of an ancient site, with accompanying archaeological excavations in each of the towers. The results will add important pages to the history and development not only of the Sanctuary of Labraunda, but also of the Karian capital of Mylasa and Karia itself.

The Byzantine Acropolis Fortress

On the hilltop, 100 m above the Sanctuary, there is a fortress with eleven towers built in the best fourth-century BC ashlar masonry and there is every reason to believe that it dates to the Hekatomnid period. It was hoped that the archaeological investigations would confirm this. Already last year, the excavations in the inner fortress (Figs. 8 and 10) uncovered a square room (Room a), lined with corridors (b) on the west and south sides. These structures, however, were obviously not part of the original Hekatomnid construction: the large amount of broken vases with a grooved body in a white clay, together with many glazed pottery fragments, indicated that the Acropolis Fortress had been rebuilt and was in function in the Middle Byzantine period. This was a major and quite astonishing discovery for last year, since no buildings from this period had been recognized earlier in Labraunda. A few sherds of Byzantine pottery had been registered in the early excavations, as well as a couple of Middle Byzantine coins, but now a substantial Byzantine fortress on the Acropolis became a new addition to the historical development of Labraunda.

The excavations of 2009 aimed at answering the questions that came up last year. How did Room a and the corridors relate to the fortification wall of the former inner fort?

² See Karlsson 2008.

³ See Karlsson 2009.



Fig. 9. View from the west of the excavated area after the completion of the work.



Fig. 11. View from the west of the Southwest trench.

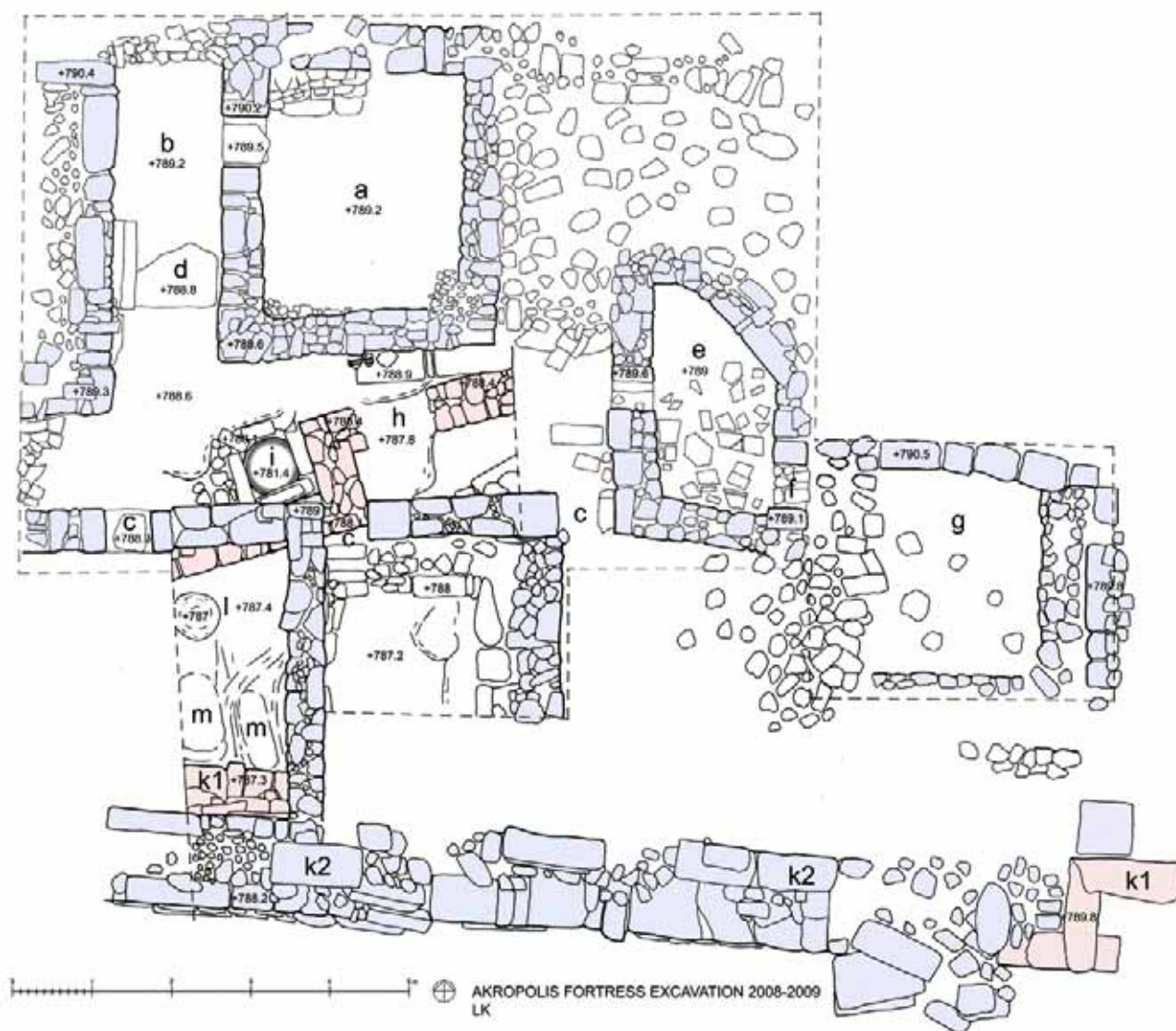


Fig. 10. The Akropolis Fortress. Plan of the excavation area. By L. Karlsson.



Fig. 12. View from the north of the flagstones and fallen tiles in the Southwest trench.



Fig. 13. View of roof-tile pressed onto the east wall of the room in the Southwest trench.



Fig. 14. Exterior face of the Hekatomnid/Byzantine fortification wall. The dashed white line indicates the Byzantine restoration.



Fig. 15. View of the inner face of the fortification wall in the Southwest trench. The projecting lower part is Hekatomnid work. Note the marks for the extraction of blocks in the bottom of the trench and the round cutting for a water jar in the foreground.



Fig. 16. Byzantine water outlet in the Southwest trench.



Fig. 17. Byzantine marble quern from the Southwest trench.



Fig. 18. Round slingstones from the Southwest trench.

Should this Byzantine establishment up here be considered as a small village or as a planned military outpost, possibly an AKPITHΣ garrison? Is there evidence for Hekatomnid structures/barracks below the Byzantine levels?

Four trenches were laid out on the Acropolis this year (Figs. 9–10). The first trench, the Southwest trench, was located so that it connected the 2008 excavation with the inner fortress walls (Figs. 10, 11, 14 and 15). Very soon, at the level of the Byzantine floor brought to light last year, the excavations registered a floor paved with flat stones, especially near the fortification wall (Figs. 11–12). A large quantity of Byzantine roof tiles, of the type known from last year, were found on this floor or pressed against the wall (Fig. 13). The floor of paving stones was not seen in the inner rooms excavated last year, something which probably indicates that the function of this room required a more stable floor surface. I will return to this issue below.

It was clear from a brief inspection last year of the outer face of the fortress walls, that the Hekatomnid walls had been restored on a later occasion. This year, the outer face

of the walls was cleaned in a more careful way, and it became obvious that most of the visible parts of the walls are Byzantine restorations (Fig. 14). Furthermore, in the Southwest trench, the entire inner surface of the fortress walls was exposed (Figs. 15–16). The evidence here was clear: the lower part of the Hekatomnid wall was still *in situ* (see Fig. 10:k1), but the upper part had been rebuilt (Fig. 10:k2). The original width of the Hekatomnid walls had been 1.8 m, while the rebuilt section had a width of only 1.2 m. Since the exterior surfaces were placed on the same plumb line, the preserved Hekatomnid inner wall formed a projecting ledge (which was covered by later Byzantine floors). The Southwest trench cut the fortress walls exactly where the Byzantine population had built a small water outlet through the wall (Fig. 16). On the inside at the mouth of the outlet, fragments of two Byzantine glass lamps (of the type with conical cups) and several Byzantine glass bracelets were discovered. At the level of the tile fall there were also large amounts of grooved kitchen pots of the typical “white ware”, so common in last year’s excavations. This

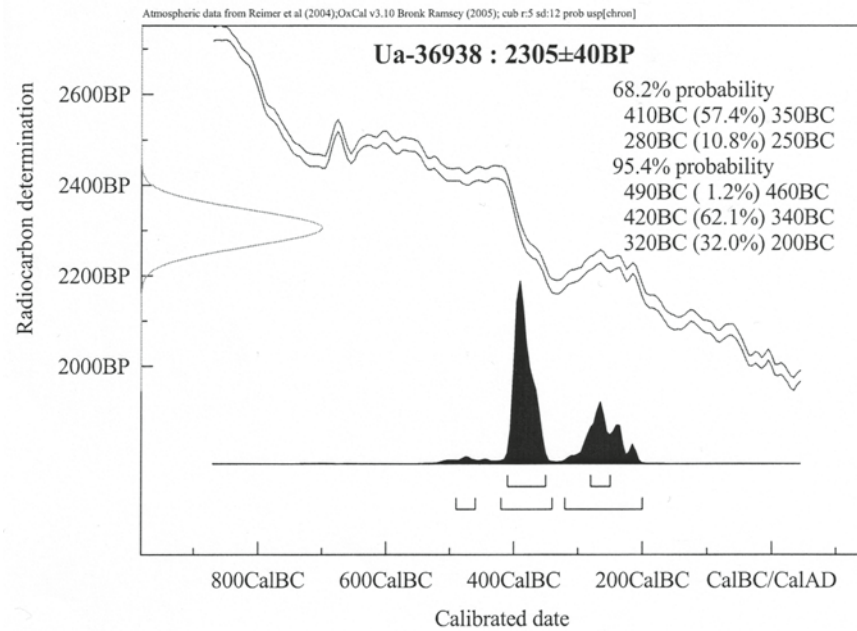


Fig. 19. Acropolis Fortress, Hekatomnid wall. ^{14}C result suggesting the middle of the fourth century BC, from the Ångström Laboratory, Uppsala University, Nov. 11, 2008.



Fig. 20. View of Hekatomnid wall in the deep trench of 2008 after this year's further cleaning. The course of the inner face of the Hekatomnid wall is indicated by the metre stick. Note that the Byzantine wall, with its large door jamb block, is standing on soil.



Fig. 21. (To the right) View of the Hekatomnid wall as it disappears into the east baulk, under Room e from last year.



Fig. 22. The mouth of the well surrounded by square blocks.



Fig. 23. View into the well, excavated to a depth of 6.7 m.



Fig. 25. The steps being tested by Ömer Güngörmüş.



Fig. 24. View of the steps cut into the side of the well, from the west.



Fig. 26. A Hekatomnid tile fragment with Greek graffiti: [...]XOITYPH.



Fig. 27. Fragments of pithos with band from the trench around the Hekatomnid wall.



Fig. 28. Hekatomnid pan-tile fragment from the Acropolis Fortress excavation of 2008 (to the left), compared with two pan-tile fragments from the Hekatomnid East Stoa excavations of 1991 (in the centre and to the right).



Fig. 29. Hekatomnid pan-tile with roll (AKW09-11).

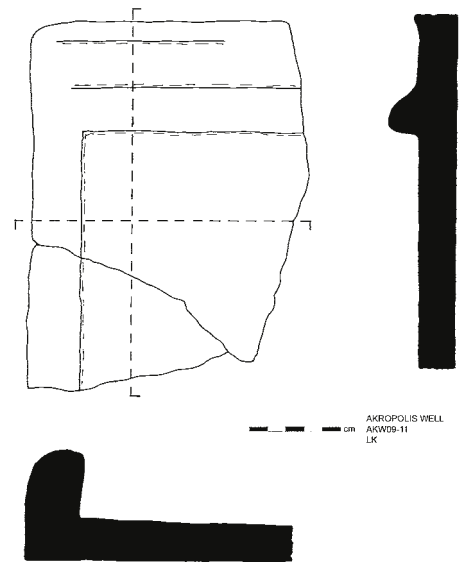


Fig. 30. Drawing of Hekatomnid pan-tile with roll, "tile stopper", at the top (AKW09-11). By L. Karlsson.



Fig. 31. Pan-tile fragments with "tile stopper" at the bottom of the underside (UC09-4).

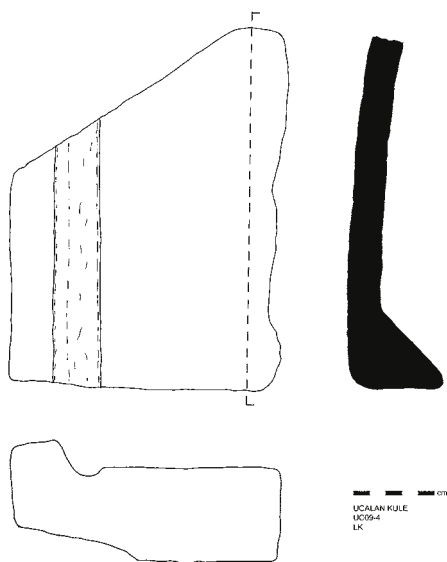


Fig. 32. Drawing of pan-tile fragment with "tile stopper" at the bottom of the underside (UC09-4).

white ware is often blackened by fire, which indicates that these pots were used for cooking. A marble quern stone for the making of olive oil or flour was another find from this trench (Fig. 17). Several Byzantine pithos rim and body fragments show that food was also stored in very large containers. People must have lived up here and considering the evidence of the bracelets, suggesting the presence of women, the possibility of a village arises. In these upper Byzantine levels were also found a whetstone for the sharpening of metal tools or weapons and four smooth river stones with an average length of 10 cm and one smaller stone (Fig. 18). These smooth stones are foreign elements to the harsh gneiss landscape of the Labraunda Acropolis.

The stones must have been carried up here, and may have been used as sling stones. It should be noted that they were discovered in the two trenches on the inside of the fortress walls (the Southwest and Southeast trenches). The evidence from the Southwest trench suggests that women lived up here—glass lamps were used and food was prepared—but the restoration of the Hekatomnid fortress walls and the sling stones argue that the establishment up here had a primarily defensive purpose.

The architecture and the plan of the buildings thus far uncovered seem to suggest a defensive layout of the complex. Last year a square room (Room a), measuring on average $\approx 3.4 \times 3.4$ m and lined by corridors on its western and southern side, was excavated. The structures that were excavated this year, between the E-W corridor and the fortress walls, were long, narrow rooms, each about 2.5 m wide and 3.5 m long (see Figs. 10–11). There seem to be no connecting doors between the rectangular rooms: instead, they are reached only from the doors that open up into the corridor behind (Fig. 10:c). Thus four rectangular rooms were laid out perpendicularly to the line of the fortress walls. These could be seen as defensive rooms, possibly elongated for the placement of throwing machines of some kind, as seems to be suggested by the substantial floor of paving stones. The rooms are connected at the back to the corridors for the easy approach by the soldiers, and further back are the square rooms for living and sleeping. It seems that this layout continues further east along the inner fortress walls (see Fig. 8).

The Hekatomnid Acropolis Fortress

Did we find any Hekatomnid structures? In the deep trench in the corridor of 2008, a wall set on a ledge cut into the bedrock was discovered (Fig. 10:h).⁴ This was a sign of an early wall. In these lower levels, fourth-century pottery and charcoal that gave a ^{14}C date to the middle of the fourth century BC (the date given was 2305 BP ± 40 years, which is ≈ 345 BC ± 40 ; Fig. 19) were also discovered. The deep trench was cleaned and the surrounding stratigraphy studied in detail. It could be established that the early wall definitely stood on the bedrock and that the Byzantine walls were built 30–50 cm above this wall and stood only on soil (Fig. 20). The early wall was interesting and Ragnar Hedlund extended last year's deep trench both west- and eastward. The early wall could be followed in both directions, but because the rounded Room e excavated in 2008 (Fig. 10:e)

⁴ See Karlsson 2009.

was located on top of the eastern part of the baulk (*Fig. 21*), the trench was continued westward. It produced a surprising discovery: the Hekatomnid wall turned 90 degrees south, for some reason (see *Fig. 10*). This was explained when Hedlund excavated outside of the bent wall: a perfectly cut well with a diameter of *c.* 86 cm appeared (*Fig. 10:2*). The rounded mouth of the well was lined with two layers of square blocks forming a square opening (*Fig. 22*). The well was excavated down to a depth of 6.7 m, without reaching the bottom (*Fig. 23*). The east and west sides of the well had cuts into the gneiss bedrock on both sides, located about 40 cm above each other (*Fig. 24*). These cuts were steps, making it possible to climb down into the well. The steps were easily used by our crew (*Fig. 25*).

In order to follow the bent Hekatomnid wall, a trench, called the Southeast Trench, was opened in the room south of the corridor. But the wall never came out into this room, but turned 90 degrees again, this time westward, and it was realized that the Hekatomnid wall was the same wall as the one already found below the Byzantine north wall in the Southwest trench (see *Fig. 10*). The wall was thus S-shaped, apparently to enclose the well inside. This Hekatomnid wall most likely ran down to Tower 11 in the Hekatomnid inner fortress (see *Fig. 8*), and thus formed a barrier between the upper platform of the inner fortress, where the Hekatomnid barracks must have stood, and the space immediately inside the fortress walls. Our excavations showed that the bedrock drops very sharply outside this inner Hekatomnid wall (see *Fig. 15*), making the outer area unfit for barracks buildings. A round cutting, immediately south of the well, was probably a hole for a large water pithos (see *Figs. 10:1* and *15*). It measures 60 cm in diameter and has a depth of 30 cm. A similar cutting was found outside the Ucalan tower (cf. *Fig. 44*).

In the lowest levels of the trench two flat bedrock areas, which were the result of the extraction of blocks for the original Hekatomnid fortification walls (see *Figs. 10:m* and *15*), were found.

The finds

In the trench around the Hekatomnid wall, R. Hedlund discovered several fourth-century finds. Here was a “Hekatomnid” roof-tile with a Greek graffito reading “...XOIIYPH:” (*Fig. 26*) and four fragments of a large pithos with horizontal bands across the body of the vessel (*Fig. 27*). This pithos type is one of the more interesting finds of the last years’ fortification excavations. Fragments from the same type of pithos with bands have been discovered at Burgaz Kale, at Ucalan Kule, and no less than seven broken body fragments and a rim were taken up from the



Fig. 33. Marble tile from the Temple of Zeus with tile stopper on its underside.

Acropolis well. The fact that they were found in and around the well suggests that this pithos type was a water jar, and it is likely that it served the same function at the forts of Burgaz and Ucalan.

The clay in the pithos fragments is exactly the same as the clay that was used for the earliest roof-tiles found on the Acropolis. Already in the excavations of 2008, I was able to distinguish the many Byzantine roof-tiles from a type that is similar to fourth-century BC examples known from both Pergamon and Smyrna, but also to the tiles from the Hekatomnid East Stoa in Labraunda (*Fig. 28*). This year, the excavations of the well strengthened this hypothesis: all the tiles from the lower levels of the well (below 1 m) belong to this presumptive Hekatomnid tile type. This circumstance shows both that the well was filled up already in the middle Hellenistic period (around 200 or the early second century BC) and that this roof-tile type is the Hekatomnid type. Typical for these roof-tiles is that they have an upper roll, a “tile stopper”, which is placed about 3–4 cm below the top of the tile (*Figs. 29–30*). Over this upper tile stopper should be placed a ledge (also called “tile stopper”) projecting on the underside of the tile above (*Figs. 31–32*). The same type of tile stopper on the underside can be seen on the marble roof-tiles of the Hekatomnid Temple of Zeus at Labraunda (*Fig. 33*). Already in 1966 Åke Åkerström dated several examples of this type to the late Archaic period, indicating that this is a typical Anatolian roof-tile system.⁵

The most interesting finds from the Acropolis Fortress this year were the three pan-tile fragments with a rectangular stamp pressed into the clay (*Figs. 34–35*). They were all discovered in the well, and one of them was

⁵ Åkerström 1966, 16 (fig. 5: Assos), 191 (fig. 63: Boghazköy). I thank Nancy Winter, Rome, for this reference.



Fig. 34. Pan-tile with stamp from the well (AKW09-7).

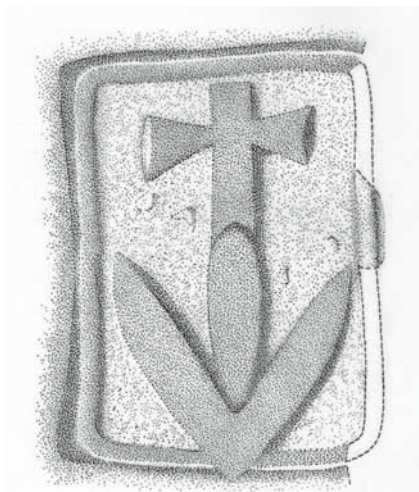


Fig. 35. Drawing of stamp. By Alicja Grenberger.

found at a depth of 6.7 m, where there is nothing later than the third century BC. The stamp is surrounded by a frame measuring 3.8×2.8 cm. The motif seems to be a double axe, measuring 1.5×1.5 cm, standing on a three-pronged object.⁶ If this three-pronged object is meant to be a trident, the motif resembles the combination of the double axe and the trident on late fourth-century and Hellenistic coins of Mylasa. In her book on these coins, Aşkıdıl Akarca argued that this combination symbolised the two attributes of the Mylasan gods Zeus Labraundos



Fig. 36. Fragment of foot from incense burner (?) from the East trench (AK09-28)

and Zeus Osogoa, the double axe and the trident, respectively.⁷ In the excavations of the watchtower at Ucalan, a further pan-tile with a stamp was discovered, which will be discussed below. The stamping of roof-tiles is known earlier from the excavations in the Sanctuary itself, where a double axe and the Greek legend IEPA were stamped into the clay.

An unusual find this year was a terracotta object, which we believe is the foot of an incense burner (Fig. 36). It consists of a part of a ring decorated with a vine scroll which is connected to a foot, clearly identifiable by its large lion paw. The leg of the foot is decorated with a female mythological figure, probably a sphinx, whose wings are thrown back, just like the Nike from Samothrace, to strengthen and connect the foot with the ring of the stand (height of figure: 1.5 cm). The style seems Classical and it is likely that it dates to the fourth century BC. So far we have only found one comparison, in marble, from Cyprus.⁸

In the Byzantine levels, there were several fragments of the typical Byzantine glazed bowl, similar to examples found last year. The diameter of the bowls is around 22 cm. The decoration of the interior consists of fairly thin incised lines painted brown, above which there are painted motifs primarily in green. The bowl AK09-1 (Fig. 37) belongs to the group called “painted fine sgraffito ware” and is dated to the middle and the second half of the twelfth century,⁹ while bowl AK09-2 (Fig. 38) seems to be related to the Pergamene group with green glaze.¹⁰ The third bowl AK09-3 (Fig. 39) has a sophisticated rim profile which suggests that it belongs to the group of “Green and orange-stained

⁶ I thank Prof. Pontus Hellström, who has found, in the Labraunda archives, a drawing of the same stamp on a tile found on the Temple Terrace in 1948 (inv. no. 64-1948).

⁷ Akarca 1959, 47, pls. 1:3–6 and 4:27.

⁸ See illustration in Moscati 1988, 300.

⁹ Vroom 2005, 87; Papanikola-Bakirtzi *et al.* 1999, 81.

¹⁰ “Pergamenische Gefäße mit grüner Glasur”, Spieser 1996, 46.



Fig. 37. Middle Byzantine glazed bowl from the Southwest trench (AK09-1).



Fig. 38. Middle Byzantine glazed bowl from the Southwest trench (AK09-2).

pottery”, dated by Spieser and Böhlendorf-Aslan to the second half of the 13th century.¹¹

Ucalan Kule

About 745 m west of the Sanctuary there is a watchtower placed on top of a very prominent gneiss outcropping (see Fig. 2). There is a superb view of the Sanctuary from this place and the view up towards the Acropolis Fortress is also excellent. The watchtower is located immediately on the north side of the Sacred Way and straight down across the road there is the watchtower called Kepez Kule, which will be the subject of an investigation in 2011.



Fig. 39. Middle Byzantine glazed bowl from the Southwest trench (AK09-3).



Fig. 40. View of the tower at Ucalan Kule from the north.

The large rectangular tower is placed directly on the slightly curved gneiss boulder (Fig. 40). The tower is somewhat asymmetrical: the north side measures 6.9 m, the south side 7.1 m, while the west side measures 9.1 m and the east side 8.85 m (Fig. 41). The wall width is 0.65 m. The interior is divided into two rooms measuring 5.6 × 3.5 m (north) 5.8 × 3.65 m (south). There is a partition wall between the rooms with a door opening of 1.3 m (see Fig. 41). In the south side there is an entrance, located 1.85 m from the west wall, which means that the two doors were not aligned, since the south entrance is placed 25 cm to the west of the door between the rooms. The masonry of the tower consists of large blocks and boulders, which are not regular ashlar blocks (see Fig. 40). This masonry is very different from the perfectly cut ashlar blocks in the Acropolis Fortress, the Burgaz Kale and the Tepesar Kale. Larger blocks are used on the exterior, but the interior

¹¹ “Keramik mit grünen und orangefarbenen Flecken”, Spieser 1996, 52–53; Böhlendorf-Aslan 2004, 139–140.

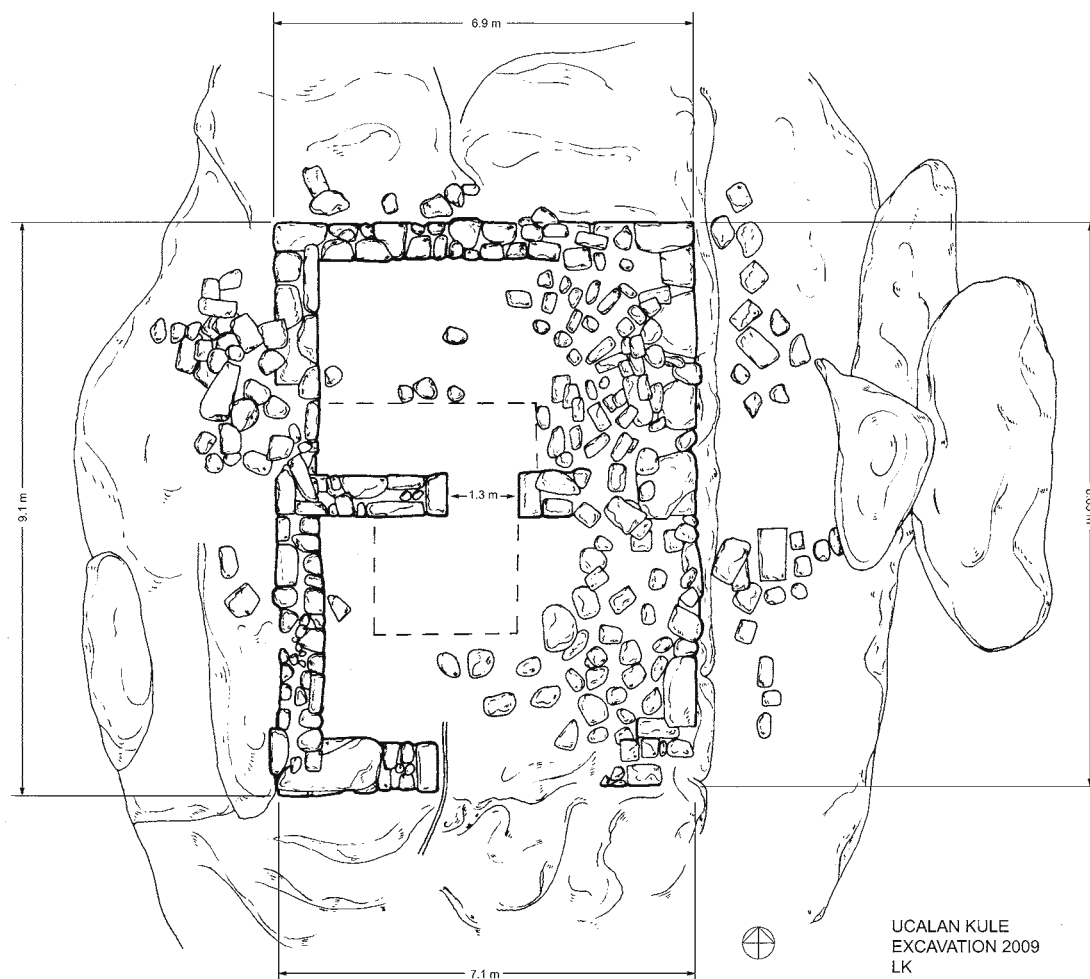


Fig. 41. Plan of the Ucalan Kule tower. By L. Karlsson.

walls employ smaller blocks, neatly laid together with small rocks in the interstices (Figs. 42–43). North of the tower there is a circular cutting, just as at the Acropolis Fortress, probably for a water pithos of the type with bands (Fig. 44, cf. Fig. 15).

The finds

A large quantity of roof-tiles of the highest quality, including both pan-tiles and cover-tiles, imbrices, were still lying in the position in which they fell. Very few imbrices were discovered in the Acropolis Fortress, so the large number of imbrices from Ucalan was surprising. All of them are of the pitched-roof type (Fig. 45). Most of them have a roll running down the two upper slopes of the tile (Figs. 45–46).

The pan-tiles are of a more developed type than the Hekatomnid tiles from the Acropolis Fortress. A major difference is the upper tile stopper, which in the Hekatomnid type consists of a nicely shaped and independent roll, about 2 cm wide. The Ucalan pan-tiles have lost the separate roll, which instead has been incorporated into a larger upper flange that is highest towards the inside and continuously sloping towards the top (Figs. 47–48).

The Ucalan tiles are also made of orange clay, different from the brown-red Hekatomnid examples from the Acropolis Fortress. These facts and the more irregular masonry of the tower itself argue for a post-Hekatomnid date for the Ucalan tower. There do not seem to be any later repair pieces among the roof-tiles, and there is definitively nothing Roman or Byzantine in the tower, which indicates that it went out of use in the early second century BC, at the latest.



Fig. 42. The excavation trench in the north room with the partition wall to the left.



Fig. 43. The north face of the partition wall.



Fig. 44. Round cut for pitbos in the bedrock north of the tower.



Fig. 45. Well-preserved imbrex fragments from Ucalan tower.

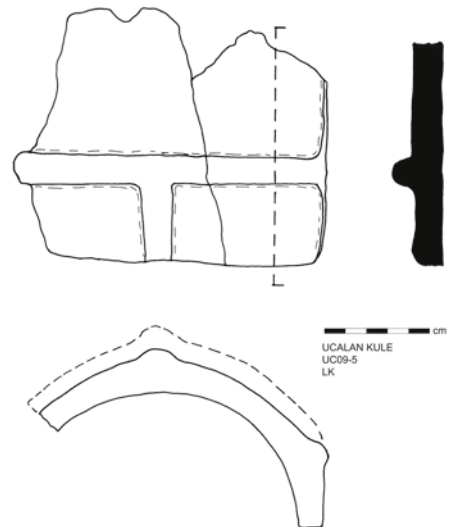


Fig. 46. Drawing of imbrex (UC09-5). By L. Karlsson.



Fig. 47. Pan-tile fragments from Ucalan Kule.

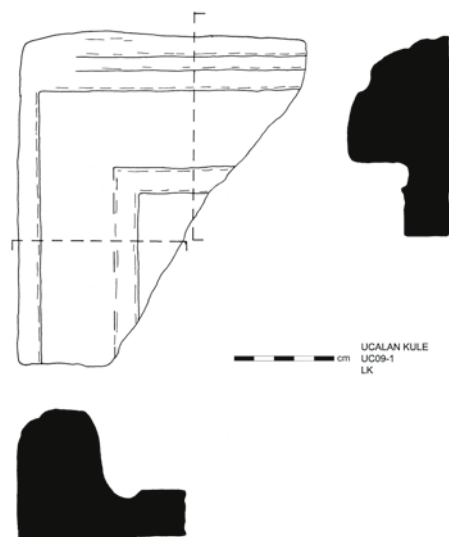


Fig. 48. Drawing of pan-tile (UC09-1). By L. Karlsson.

The most unusual find was a pan-tile with a stamp (Fig. 49). The stamp seems to be circular with a diameter of about 4.5 cm, but, unfortunately, only a little more than half is preserved. This stamp is more difficult to interpret, but here also it could be a combination of the double axe and the trident. On the Acropolis tiles the double axe was standing on the trident, but here the trident is growing out of the double axe, which is also the more common combination on the coins of Mylasa, as Akarca has shown.¹²

Research on Labraunda in Late Antiquity (by Jesper Blid)

During 2009, the project “Labraunda in Late Antiquity”¹³ has undertaken a complementary excavation to last year’s work inside the Tetraconch, as well as a new archaeological investigation at the so-called “West Church”. Both buildings are situated in Area Z: the south-western part of Labraunda. Initially, work was conducted at the Tetraconch, where last year’s excavations inside the central bay of this building revealed a hypocaust floor and channels for hot air built into its walls. It became apparent that the Tetraconch



Fig. 49. Pan-tile with stamp from Ucalan Kule (UC09-10).

was a part of a small bath complex, most probably connected to a Late Roman residence.¹⁴

Extended excavations in the Tetraconch bath

This year’s extended excavation inside the Tetraconch has added to our knowledge about the building’s chronology and function. It is suggested that the original construction phase dates early in the first half of the fourth century. Alterations were made in the late fifth/early sixth centuries, and the structure’s function changed as it ceased to be used as a bath. The function of the second building phase is not certain but the archaeological evidence, based on processed pottery and ¹⁴C analyses, indicates that an additional third re-shaping of the structure occurred within less than a century after the second phase was completed. During the third building phase, perhaps during the later part of the sixth century, the floor of the northern apse was rebuilt, and a rather irregular lime-mortar floor replaced the *cocciopesto* floor¹⁵ of the second building phase. As a consequence, most remains of previous activities were removed, thus making it hard to reconstruct the function of the Tetraconch during the second phase. The third phase, stratum 4A, completely lacks pottery and other small finds, and it seems to have functioned as non-domestic space. Also belonging to the third phase is a large hearth centred in the apse. The lime floor, as well as the hearth, may indicate that the northern apse might have been used as a lime kiln

¹² Akarca 1959, pl. 4:27.

¹³ This year including the author, Dr Ragnar Hedlund and M.A. Naomi Carless Unwin.

¹⁴ The architectural layout of the Tetraconch is similar to other private bath establishments of the late third and early fourth centuries, see the Palace of Galerius at Gamzigrad in Serbia; Srejovic 1983, 128–133; Piazza Armerina in Sicily; Wilson 1983, and the “Byzantine Bath” at the Governor’s Palace at Ephesos, dated tentatively to the period of Diocletian by Foss 1979, 51 and n. 9.

¹⁵ *Cocciopesto* is the Italian term for a cement-like floor covering which is made up of lime mortar and crushed pottery and tiles, thus giving it a reddish colour.

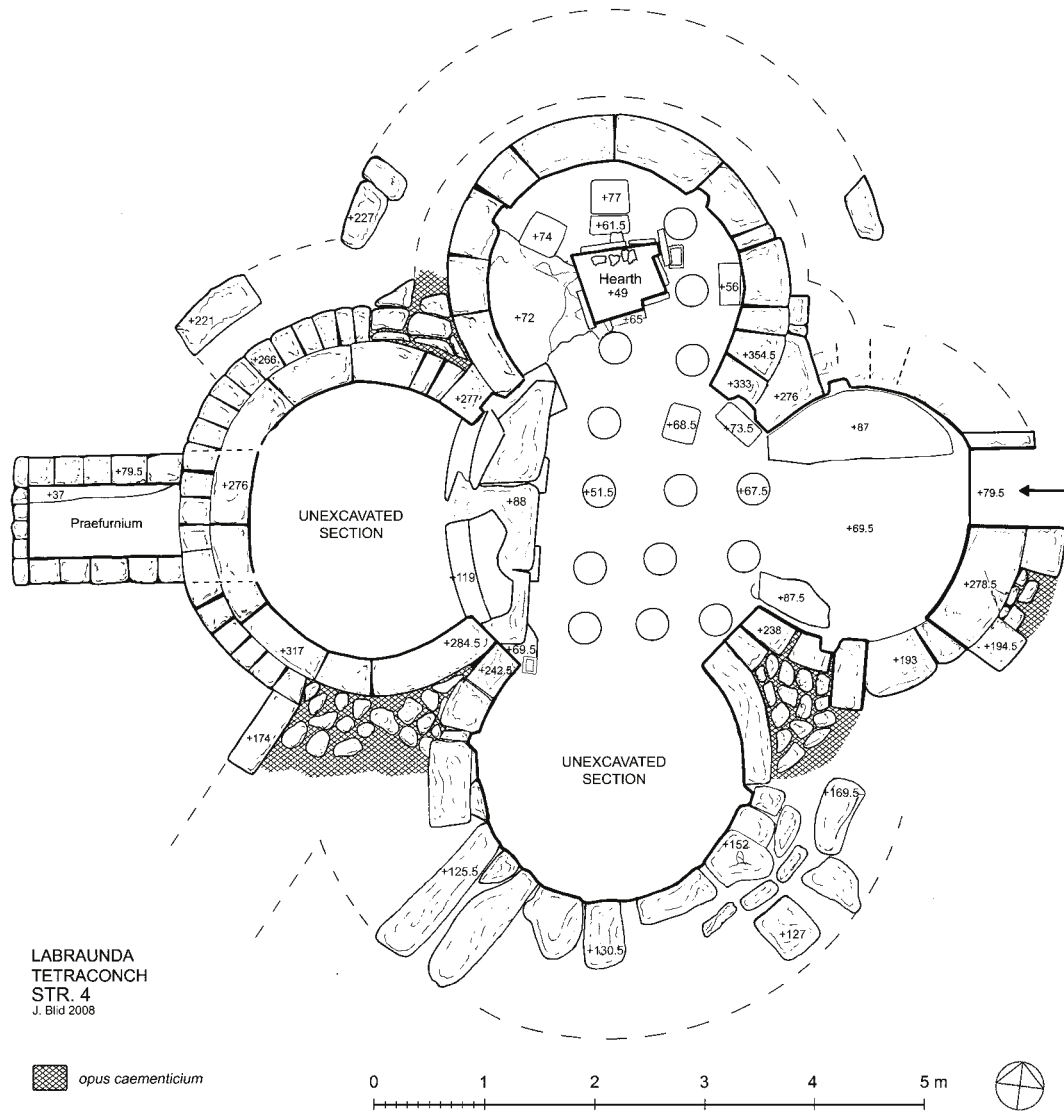


Fig. 50. The Tetraconch, stratum 4 with hearth from the second half of the sixth century. By J. Blid.

during this period. The fourth and final phase, stratum 3A, is dated to the second half of the eighth to first half of the ninth century, based on the study of pottery from this layer.¹⁶ The synthesis of the total find sequence thus attests to sporadic activities taking place inside the Tetraconch for about five centuries before the superstructure of the central bay finally collapsed.

The 2009 excavation started in the northern apse. Already in 2008, a deep, square hearth was found *c.* 50–100 cm above the bedrock floor, in stratum 4A.¹⁷ It was built of large and slightly curved roof tiles, measuring 50 × 33 cm (Fig. 50). No pottery or small finds were excavated in this stratum, thus precluding a relative chronology. However, a ¹⁴C test on charcoal, found in the hearth, provided the date

¹⁶ Cf. “Mittelbyzantinische glasierte Keramik” in Böhlendorf-Arslan 2004, Teil I, 109; Teil II, 426 (Cat. No. 404); Teil III, pls. 104:404, 174:3.

¹⁷ The hearth is constructed like a pit crushing straight through the earlier floor layers beneath it. Stratum 4 is, apart from the pit-shaped hearth, the *c.* 20 cm of lime mortared floor situated immediately over the *cocciopesto* floor of the second building phase.

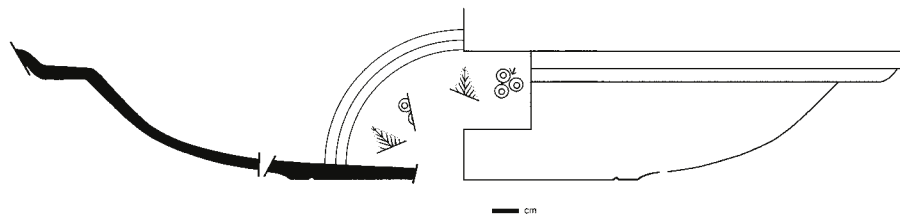


Fig. 51. Bowl of African Red Slip Ware. By J. Blid.



Fig. 52. Dish of Phocaeen Red Slip Ware. By J. Blid.

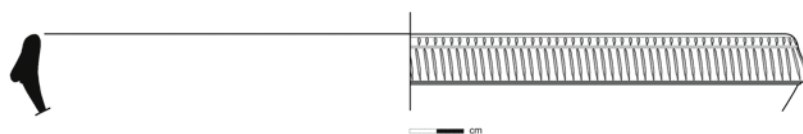


Fig. 53. Dish of Phocaeen Red Slip Ware. By J. Blid.

535–610 Cal. AD.¹⁸ We could also with greater certainty connect the hearth with the remains of an irregularly built floor surrounding it. This whitish floor consisted of some sort of lime mortar: samples of this mortar are currently being prepared for an analysis of its content. The lime floor rests directly upon the two earlier collapsed floors from building phases 1 & 2. The c. 70-cm-deep stratum below the lime mortar floor, stratum 5, includes the remains of the second building phase, and corresponds to last year's excavation of the equivalent level in the central bay. This stratum consists mainly of a greyish ash layer filled with discarded fragments of broken pottery, marble revetments, cornice mouldings and small metal objects, such as hooks for fixing tubuli to the walls. The fragments of cornice mouldings have a circular curvature, and the calculated circumference equals that of the apse; it is thus plausible that they were originally on the walls of the Tetraconch during its earliest phase. The large quantity of these cornice mouldings may further strengthen this hypothesis. It became obvious already last year that the hypocaust had been filled up with midden material during a second building phase. This material all seems to date to the fifth-sixth centuries. This led us to the conclusion that the floor was rebuilt around this period. Among the fine wares, excavat-

ed in the northern apse in 2009, are bowls and plates of African Red Slip Ware¹⁹ (Fig. 51) and Phocaeen Red Slip Ware²⁰ (Figs. 52–53), while the coarse wares were similar to last year's finds.²¹ Plenty of charcoal was excavated in stratum 5: one fragment was ¹⁴C dated to 430–550 Cal. AD, thus chronologically corresponding to the relative dating of the pottery presented above.²²

Since the hypocaust was filled up during the second building phase it was evidently taken out of use. The extended trenches inside the northern apse, and in the central bay, also confirm that there are no water pipes *in situ*. Many broken fragments were found however in the filled-up level of the hypocaust and a terracotta pipe had also been reused as a support for the floor of the second building phase by the south-eastern pier of the central bay. Thus, it does not seem likely that the Tetraconch was used as a bath during the second phase, i.e., after the late fifth/early sixth century. The

¹⁹ See Hayes's shape 67:4, the vessel shape together with the stamped decoration of type 16:n and 83 suggests a date in the first half of the fifth century; Hayes 1972, 112–114, 230–233, 244f.

²⁰ See Hayes's catalogue of stamps for "Late Roman C Ware", no. 2:a, first half of the fifth century and vessel shape 3, with rouletting on rim, second half of the fifth century; Hayes 1972, 329–338, 350f.

²¹ Karlsson 2008; Karlsson 2009.

²² 1554 ± 31 BP, Ua-38580.

¹⁸ 1500 ± 35 BP, Ua-37991.

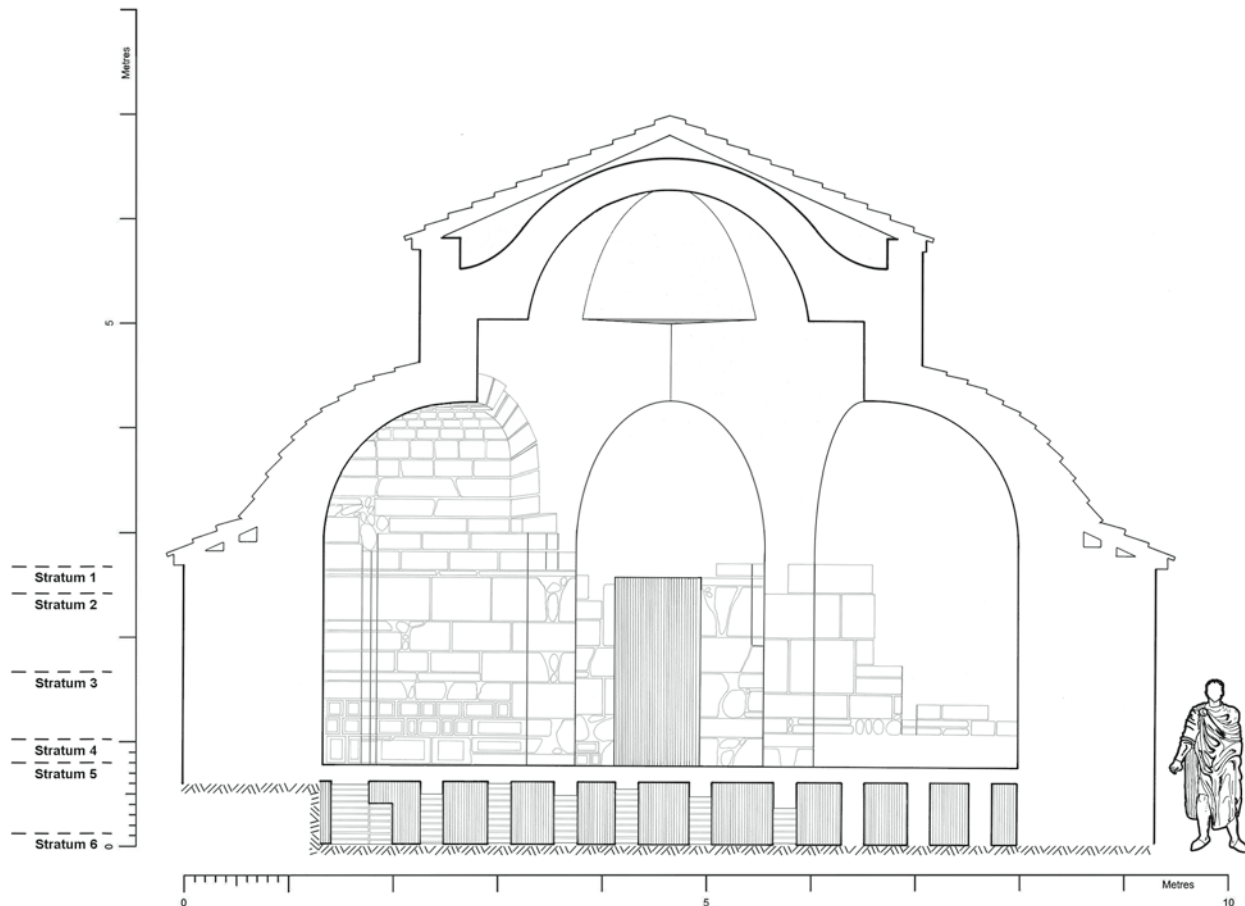


Fig. 54. The Tetraconch, section towards the east. By J. Blid.



Fig. 55. View from the east of the western section of the hypocaust and suspensura of the central bay.

*suspensura*²³ of the bath phase, i.e., the first building phase, consisted of cut paving slabs of local granite, still preserved *in situ* in the western apse. Several similar slabs were also excavated from stratum 5 in the northern apse. These stone slabs were situated upon circular *pilae* and rectangular piers of terracotta (Fig. 54). Additionally, the floor of the second building phase resembled the floor of the first phase: reusing the brick *pilae* system, stabilised however by the midden materials surrounding the *pilae*. The second *suspensura* was constructed with two layers of brick piled upon each other and covered by a layer of *cocciopesto* (Fig. 55).

Stratum 6, a c. 10-cm-deep layer immediately above the bottom floor, seems to belong to the initial bath phase. It consists of a dark and moist layer of soil without any finds of pottery. This layer was already recorded last year in the central bay but even there it lacked finds. Furthermore, stratum 6 does not show any traces of ashes and charcoal,

²³ *Suspensura* is the Latin term for a suspended floor, i.e., a floor supported by small pillars (*pilae*).

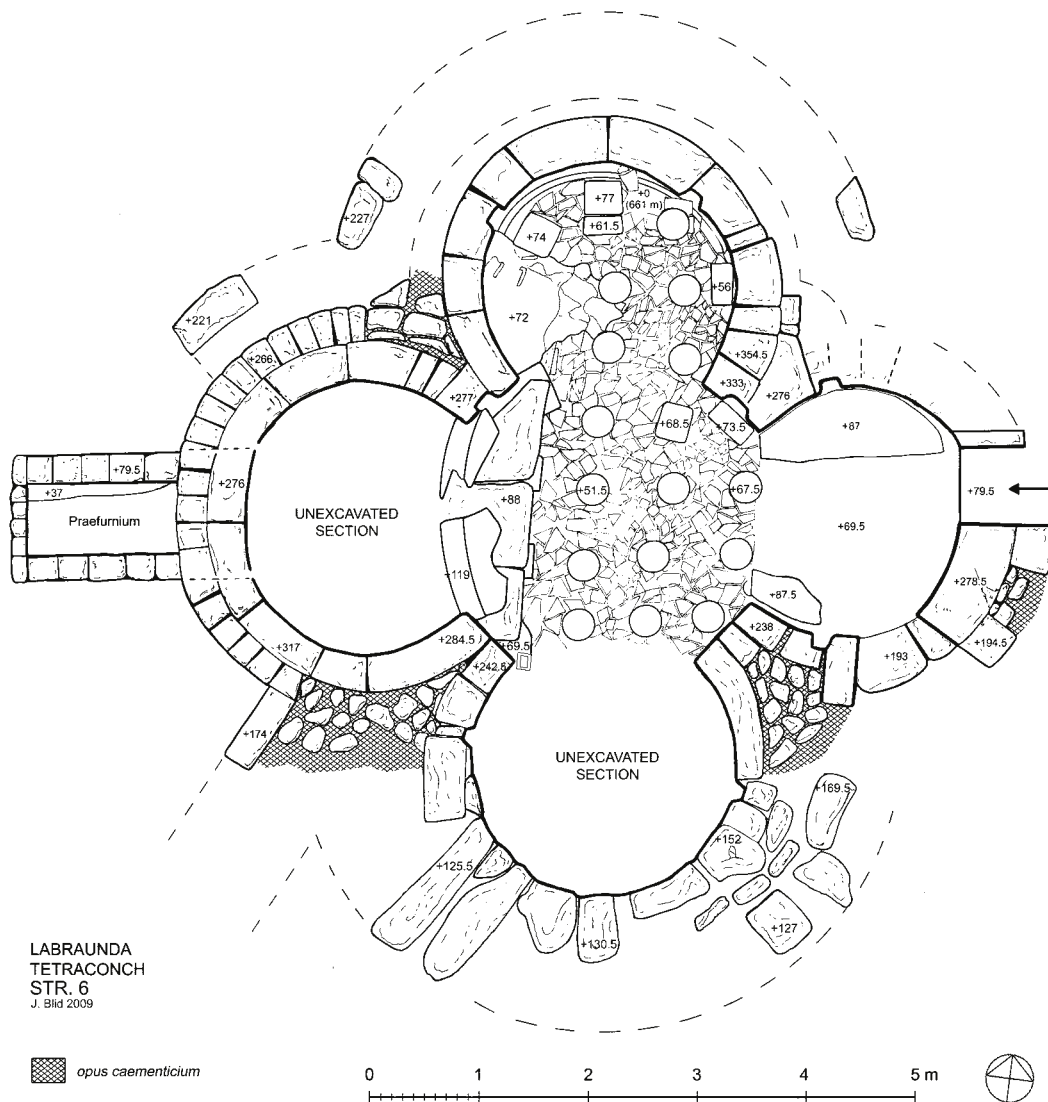


Fig. 56. The Tetraconch, stratum 6 with the bottom floor. By J. Blid.



Fig. 57. View of the pilae and rock-cut channel in the northern apse.



Fig. 58. Bronze ring with engraved agnus dei (?).

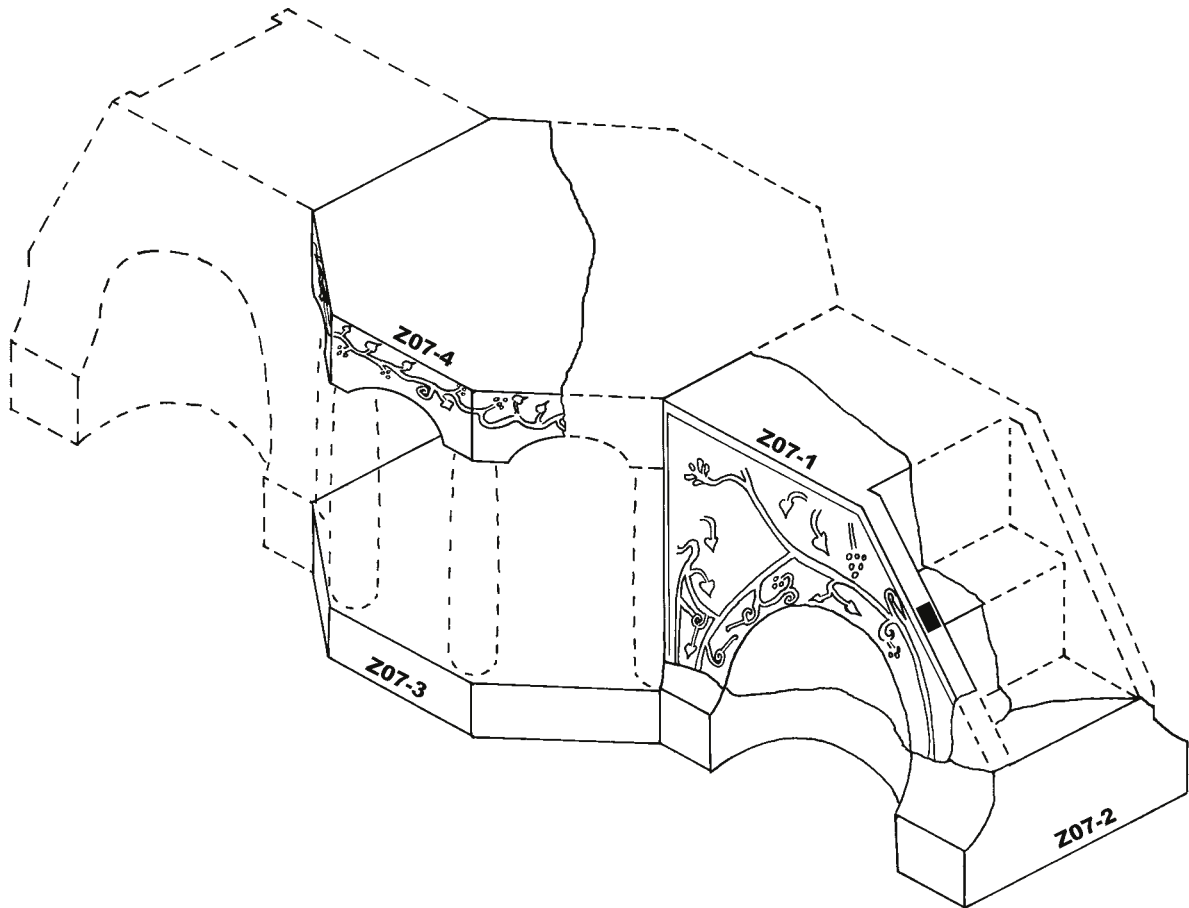


Fig. 59. The *ambo* found in Area Z in 2007. By J. Blid.



Fig. 60. Late Antique marble block with reliefs of arcades found in Area Z in 2009.

characteristic of stratum 5. Our conclusion is that this layer must have been in place before the construction of the second building phase. Below this thin layer, there is a floor paved with broken tiles (Fig. 56). It is set with *cocciopesto* directly on the bedrock. The lower part of the northern apse wall is cut directly into the bedrock, and it shows that a large building trench, equivalent to the area occupied by the northern apse and 65 cm deep, was prepared for the Tetraonch prior to its original construction. At the bottom of this building trench there is a circular and shallow channel cut in the bedrock floor, most likely to carry off water from the bedrock wall (Fig. 57).

An extended trench was also opened in the eastern part of the central bay, showing a stratification identical to the one previously described. Stratum 5 exhibited pottery, exclusively fifth/early sixth-century material, along with a bronze ring of uncertain date (Fig. 58). An engraved motif



Fig. 61. Image from the geophysical survey showing the "West Church".

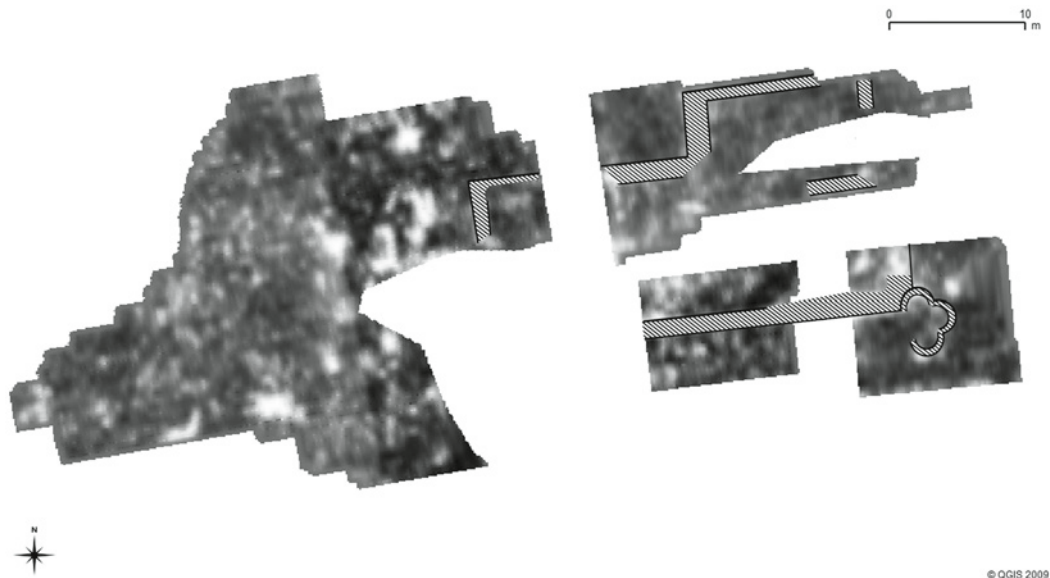


Fig. 62. Image from the geophysical survey showing the "West Church" with schematic accentuation of the walls of the structure. By J. Blid.

on the ring shows a creature standing between what looks like two trees. The body and the tail have a shape similar to fifth- and sixth-century representations of the agnus dei: for example, the reliefs on the entablature blocks of the propylon of the Theodosian Hagia Sophia in Constantinople, and in the apse mosaic at S. Apollinare in Classe, Ravenna. Due to the very stylized appearance of the motif, it is hard to give a more certain identification of what the engraved creature might be.

During the extended excavation of the central bay a coin was found in stratum 6, the layer that is interpreted as belonging to the original phase of the Tetraconch. It is a bronze coin of the denomination usually referred to as AE3: its Roman name is not known. It can be dated to the age of Constantius II and is identified as a coin of the type which features the legend FEL[IX] TEMP[ORUM] REPARATIO ("Restoration of the happy times"). Coins of this type were struck throughout the Empire and are

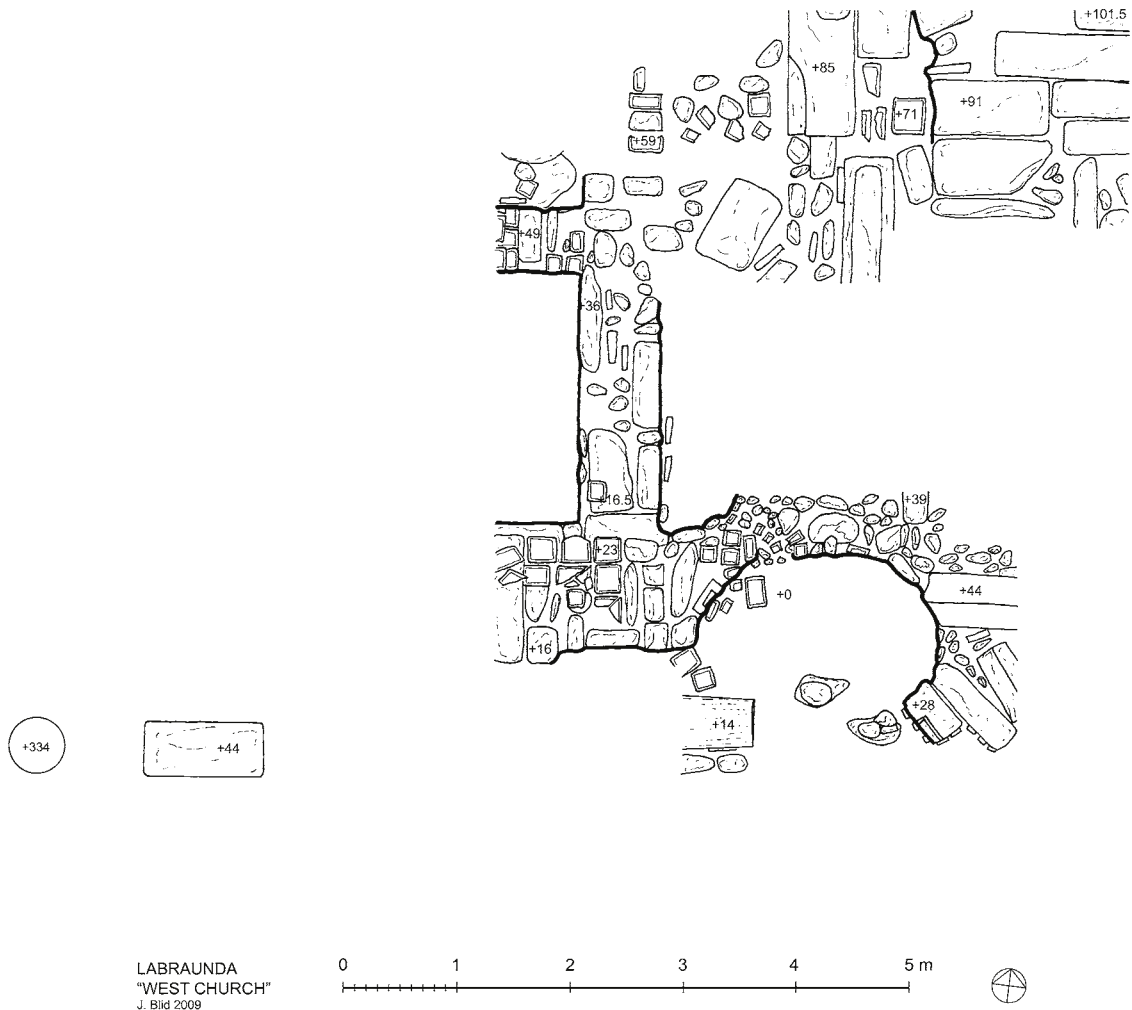


Fig. 64. Stone plan of the "West Church". By J. Blid.



Fig. 63. Dish of Phocaeen Red Slip Ware. By J. Blid.

assumed to have been produced between AD 348 and AD 357/8.²⁴ This coin is at the moment the *terminus ante quem* for the building, but since it was found on the bottom floor it cannot be considered as definite.

²⁴ RIC 8, 34–36; cf. for instance 498, nos. 104–109 (Cyprus) and 544f., nos. 82–86 (Alexandria).

Archaeological investigations at the "West Church"

The second project this year was to follow up the geophysical investigation undertaken in Area Z (see also Fig. 5, Area 1). Especially interesting was the south-eastern area where we found four fragments of a marble ambo in 2007. This type of ambo is typical for Karia and southern Ionia (Fig.

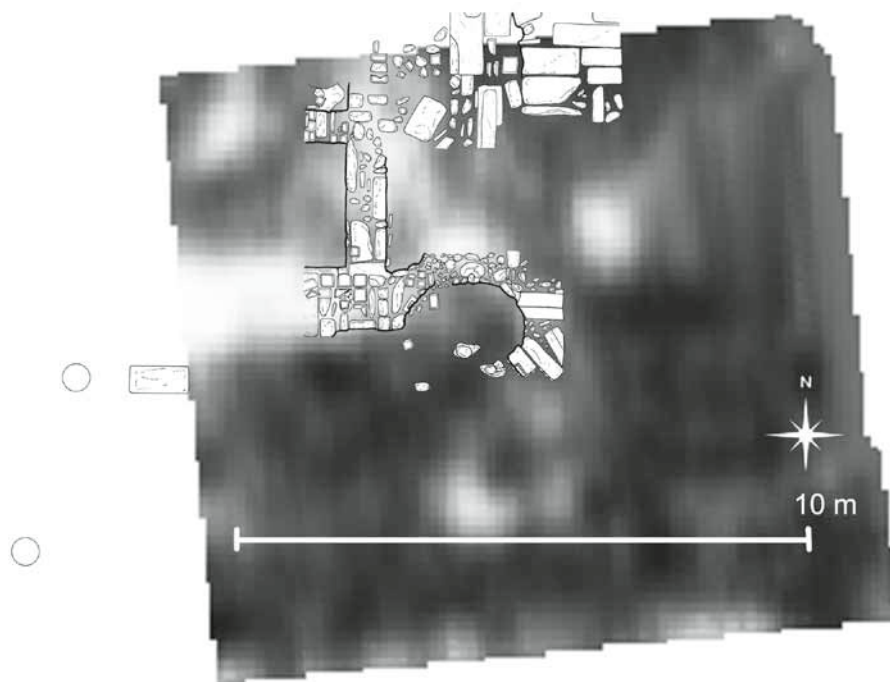


Fig. 65. Image from the geophysical survey and stone plan of the multi-apsed complex in the south-western corner of the "West Church". By J. Blid.

59).²⁵ The fragments had been reused in a post-antique terrace wall, but the large dimensions of the fragments led us to believe that they originated from a church near the find spot. Another indication of this was this year's discovery of a marble block with two rows of arcades cut in relief on two sides (Fig. 60). It appears stylistically to be Late Antique.²⁶ The discovery of this block led us again to suspect the presence of a Late Antique structure in the surrounding area.

The geophysical survey did in fact confirm the existence of a building, measuring approximately 30×10 m, oriented along an east-west axis (Fig. 61). In Fig. 61, showing a depth of 1 m, the most diagnostic part of the structure is what seems to be a small multi-apsed building, possibly a triconch, at the south-eastern corner of the complex (Fig. 62). A test trench was laid out here to investigate this part of the structure and its surroundings. The trench was taken down to a total depth of 50 cm. A few pieces of the excavated pottery were diagnostic, e.g., a rim-fragment from a

small plate of Phocaeen Red Slip Ware dating to the sixth century (Fig. 63).²⁷

Already at a depth of 30 cm, clear remains of walls became visible (Fig. 64). The excavated walls are not all constructed in the same building technique. The north-eastern part consists of large ashlar blocks placed in an east-west orientation. The blocks are then placed in a north-south direction on a lower level, and fragments of tiles and bricks have been used together with large ashlar blocks. One block has a clear rustication, and is surely reused from an earlier structure.²⁸ The whole western section of walls is homogeneously constructed, in terms of dimensions and building techniques, measuring about 70 cm in width.²⁹ These walls are built of *opus vittatum*, i.e., alternating courses of stone slabs and bricks. The dimensions of the bricks, 25×27 cm and 3–4 cm in thickness, find a close parallel to those of the Late Antique phase of the *oikoi* on the Temple Terrace.³⁰ Between the ashlar blocks in the northeast and the walls of *opus vittatum* in the

²⁵ O. Feld has suggested a late fifth- or early sixth-century date for a similar ambo in Miletos; Feld 1975, 198. For further discussion on the dating of Karian ambos, see Ruggieri 2005.

²⁶ See Ruggieri 2005, 98; fig. II/66.

²⁷ See Hayes's "Late Roman C Ware", Form 3:32, sixth century; Hayes 1972, 334f, 338.

²⁸ A wall with similar rusticated blocks can be found on the Temple Terrace, see *Labraunda* I:2, 33 (Wall 16a).

²⁹ The south-western wall, oriented on a west-east axis, is slightly wider.

³⁰ Blid 2006–2007, 251.



Fig. 66. The top of the hill before excavation.



Fig. 68. Doorway of the tomb chamber, before excavation.



Fig. 67. Remains of the east sarcophagus in the main chamber and graffiti on the eastern wall.

west, there is an even plateau constructed of bricks and small stones (indicated by “+59” in the stone plan). Here, approximately 100 black and white tesserae were found. They were not *in situ* but found in the soil on top of the bricks. The question remains as to whether the level brick courses, also covering parts of the western walls, should be interpreted as floors or parts of actual wall constructions, i.e., *opus vittatum*. The entire western section is built in the latter way; however, since the brick courses alternate vertically with cut stone slabs, it indicates, in my opinion, a mixed wall construction. Furthermore, the geophysical survey clearly shows that these walls descend to a depth of at least 1.5 m, indicating that this level probably should be high above the plausible floor level.

The south-eastern section shows evidence of yet another construction technique. Early on we could identify the northern apse in the previously mentioned multi-apsed structure shown by the geophysical investigation (Fig. 65). It has rubble walls consisting of small fragments of stone, brick and tiles along with reused marble spolia. As

suggested by Hedlund during the excavation, it appears as if the apse had been later added to the wall to the west, i.e., the different width and appearance of the two walls indicates two different phases of construction.³¹ Furthermore, a fallen column in gneiss was partly identified inside this area (indicated by “+14” in the stone plan). Two more columns are still located *in situ* c. 10 m further to the west of this terrace, on top of a visible stylobate block.

In conclusion, the building complex in the south-eastern part of Area Z is at the moment called the West Church, due to the finds of Christian liturgical furniture at this site a few years ago. Furthermore, the building has what appears to be several Late Antique or Medieval building phases, which is also attested by fragments of Late Antique pottery and a decorated marble block. However, with the exception of the ambo found in 2007, there is at present no certain evidence with which to definitely identify this building as a church. For now it is our hypothesis, based on a few indications. The excavation of this area will continue during 2010, and will possibly shed further light on this previously unexcavated area of Labraunda. In a more contextual perspective one can claim with certainty that Area Z was a place of much activity during Late Antiquity. Here, just above the ancient Sacred Way leading to Mylasa, stood perhaps both a church and a residence (to which the Tetraconch belonged). The vast fifth-century material found in the Tetraconch shows that Labraunda at this time had important economic connections with trading centres beyond the mountain, evidenced by the presence of imported goods from both

³¹ The use of marble spolia also implies a later date of this structure. The author knows of no examples of blocks of marble spolia in the walls of buildings in Labraunda before the fifth or sixth century AD.



Fig. 69. General view of the platform after excavation.

northern Africa and distant parts of Anatolia. The situation of a possible “West Church” on this plateau, prominently placed just before reaching the ancient sanctuary, is also appealing in terms of markers of space, often so typical of the ancient notion of architectural planning.

The excavation of the marble chamber tomb (by Olivier Henry)

The so-called “Marble Tomb” is situated at the top of a low hill, a few metres to the east and above the Sacred Way leading from Mylasa to Labraunda (Figs. 7 and 66). It was discovered in the 1960s, according to the inhabitants of the nearby village of Kargıcak. It was inventoried and recorded on the Labraunda necropolis map in 2005. The tomb robbers probably used dynamite to penetrate the chamber roof, which resulted in the partial destruction of the external structure of the tomb and created a large hole in the northwest corner of the ceiling of the chamber. Moreover, it seems that ever since it was first opened, the tomb has been regularly visited by looters who not only drew graffiti on the chamber walls, but also partly destroyed the marble panels of the sarcophagi (Fig. 67), as well as the slabs of the marble floor.

Before we started our work, the structure was entirely covered by a layer of earth. The only sign of a tomb was a small depression at the top of the hill and a tomb robber’s hole that allowed entrance into the chamber (see Figs. 66 and 73). Two-thirds of the chamber was filled with soil. The upper part of a doorway in the northern wall was visible but the rubble inside was so high that it prevented observation of anything else inside the tomb (Fig. 68).



Fig. 70. One of the blocks with a setting-bed for the platform, seen from the east.

The schist upper platform (Figs. 69–71)

We started the investigation with a general cleaning of the surroundings of the tomb. To our surprise, this cleaning revealed, 20 cm below topsoil, a large structure that covered the subterranean part of the tomb. Once entirely exposed, it appeared that this construction formed a large rectangular platform oriented north-south (Figs. 69–71). Although this platform had been disturbed and partly destroyed by illegal excavations, its general appearance could still be ascertained. The overall dimensions are $c. 9 \times 8$ m. While the northern edge is aligned with the façade of the subterranean tomb construction, the platform clearly overlaps the total surface of the tomb itself (which measures 4.94×3.01 m) on the south, east and western sides. The platform was exclusively made of roughly cut schist blocks of varying sizes. Most of the large blocks (measuring up to 1.9 m in length, 1.1 m in width and 0.2 m in thickness) had been placed along the edges, at the corners and on the top of the platform, covering the core of the structure itself, which is mostly composed of small to medium-sized stones (see Fig. 70). No binding technique had been used between the blocks. Nonetheless, many traces of lever holes, visible on the surface of some stones (Fig. 71), seem to indicate that the original upper part of the platform is now missing.

The subterranean marble part of the tomb

The façade (Fig. 72)

The façade of the subterranean section of the tomb is composed of only eight blocks: the threshold, framed by two blocks supporting both jambs of the doorway, a monolithic lintel and two crowning blocks. We extended the excavation to reveal the east side of the façade but, instead of an isodomic ashlar wall, we discovered that the eastern section

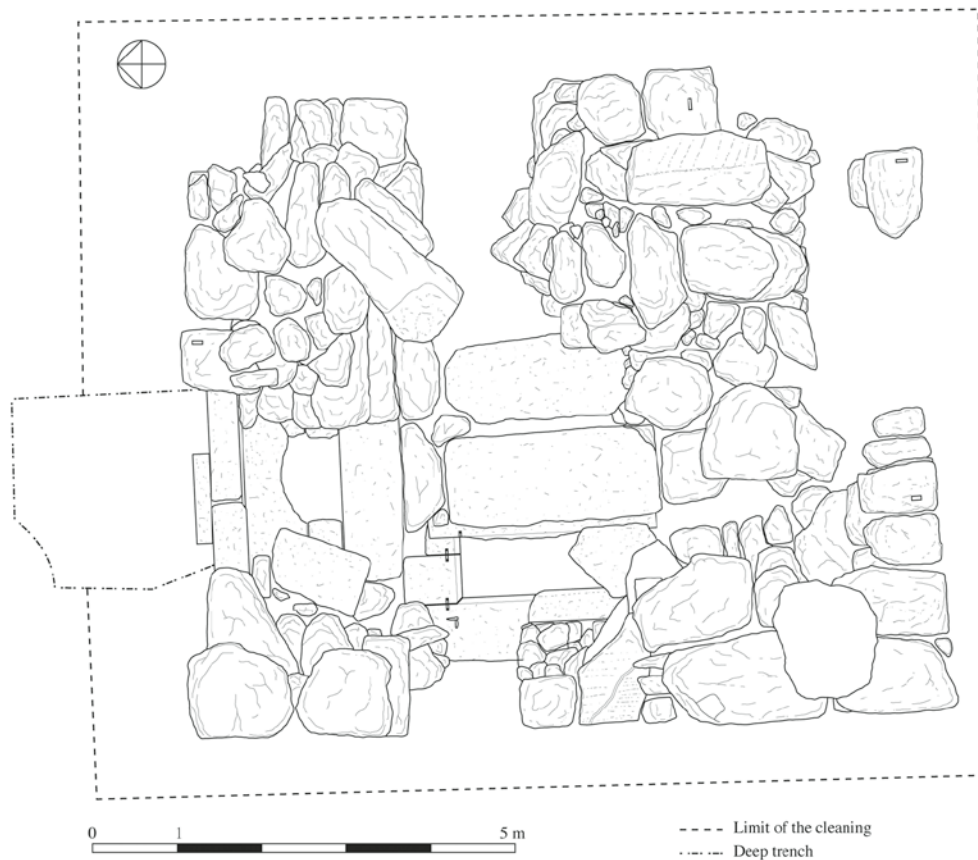


Fig. 71. Plan of the platform. By O. Henry.

of the façade was built with unaligned blocks. Although the west side of the doorway was not investigated, it seems probable that it had the same arrangement as the east side. This design indicates that only a part of the elevation of the façade, not wider than the door and the door jambs (c. 1.6 m), was intended to be seen. An excavation carried out in front of the doorway seems to indicate that access to the tomb was granted by a sloping ramp leading down to the door. This trench/access ramp was dug into the reddish soil and seems to have been later filled with black earth containing two large marble blocks and a lot of pottery fragments. The bottom of the access ramp slopes towards the door and ends a few centimetres below the top of the threshold. These observations suggest that this ramp gave access to the door of the tomb by means of an approximately 1.6-m-wide pathway, leading from the surface of the surrounding soil down to the doorway. Because of the huge masses of soil that would have had to be removed, the northern continuation of this trench/access ramp could not be followed.



Fig. 72. The entrance façade of the tomb with door block in situ.

The doorway (Figs. 72–76) is, at present, still closed by a large monolithic block measuring 1.75×1.15 m and is 0.48 m thick. It is worth noting that the dressing of the outer face of the plug door is definitely different from the other blocks



Fig. 73. View of the tomb, from the north.

in the façade. This is a clear indication of reuse, which means that this closing block replaced the original door.

Entrance and vestibule (Figs. 73–76)

Once the subterranean construction was emptied and cleaned, it was possible to draw the plan of the tomb. It is oriented north-south, including a main entrance (at the north), followed by a vestibule and a main chamber (Figs. 73–74). The tapering opening for the door measures 1.68 m in height, 1.01 m in width at the bottom and 0.96 m at the top (Figs. 75–76). The inner face of the door has, on the top and sides, a 16-cm-deep and 5-cm-wide recessed edge, allowing the door to be plugged into the tapering doorway.

The vestibule has a length of 1.82 m. The side walls, measuring 2.1 m in height, lean slightly inward, thus reducing the width of the room from 1.71 m at the bottom to 1.63 m at the top (Fig. 76). The ceiling is composed of three slabs, each oriented east-west and measuring c. 35 cm in thickness and 75, 44 and 63 cm in width. The central slab has been

broken (by looters?) as has part of the front one (Figs. 73 and 75). The floor of the vestibule is made of three transversal slabs, all measuring 1.7 m in length, and 52, 57 and 72 cm in width. The eastern one leans against the threshold block of the doorway to the chamber, which is 5 cm high and projecting 1 cm inside the vestibule (Fig. 77).

The doorway leading from the vestibule to the main chamber is 1.75 m high and 0.72 m deep. Just like the main entrance of the tomb, it tapers slightly with a width diminishing from 1.22 m at the bottom to 1.10 m at the top. No door or even fragment of a door could be retrieved during the excavation. Nonetheless, evidence indicates that this access was closed by a double-leaf door, pivoting toward the main chamber, behind a 5-cm-thick and 12-cm-wide door-stop ledge, which frames the four inner sides of the northern end of the doorway. The circular holes carved in both lintel and threshold for the pivoting axes of the door leaves are still visible (Fig. 78). This system is not unusual in subterranean chamber tombs.³² What is more unusual is the presence of a 3-cm-deep and 17-cm-wide groove carved in the threshold behind the projecting band (Fig. 79). This groove, into which the door-leaves would fall when closed, was probably cut in order to make reopening of the chamber extremely difficult.

The main chamber

The doorway opens onto a rectangular main chamber, which measures 3.01 m in width by 2.07 m in length and is 2.7 m high. The room is slightly off-centre, placed a little to the east. It contains two built sarcophagi along the sidewalls. Each sarcophagus was built from two slabs: 1) a 17-cm-thick horizontal slab was inserted between the first and the second row of wall blocks in the front, back and side walls forming the bottom of the sarcophagus; 2) a 10–12-cm-thick and 60-cm-high vertical slab was placed between two blocks of the back wall and slotted in a 5-cm-deep groove carved in the front wall, forming the

³² In Milas: Le Bas & Reinach 1888, 47; Akarca 1952, 399–405; Kızıl, 2009, M33. In Alabanda: Edhem Bey 1906. In Beçin: Kızıl 1996. In Panamara: Henry 2009, 256–257. In Orthosia: Henry 2009, 251–253 and 254–255. Lately in Tirpan 2007–2008, resim 11.

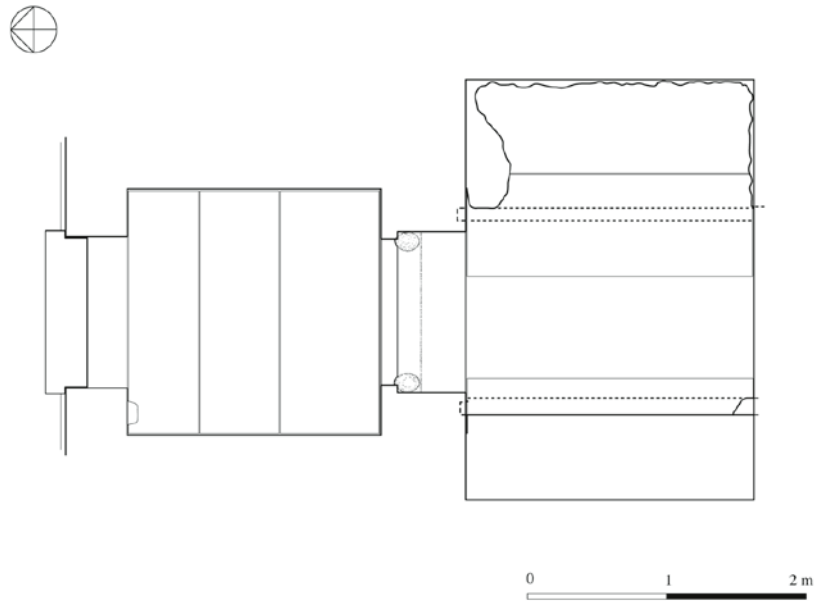


Fig. 74. Plan of the tomb chambers. By O. Henry.



Fig. 75. The vestibule of the tomb with the entrance door, seen from the main chamber.

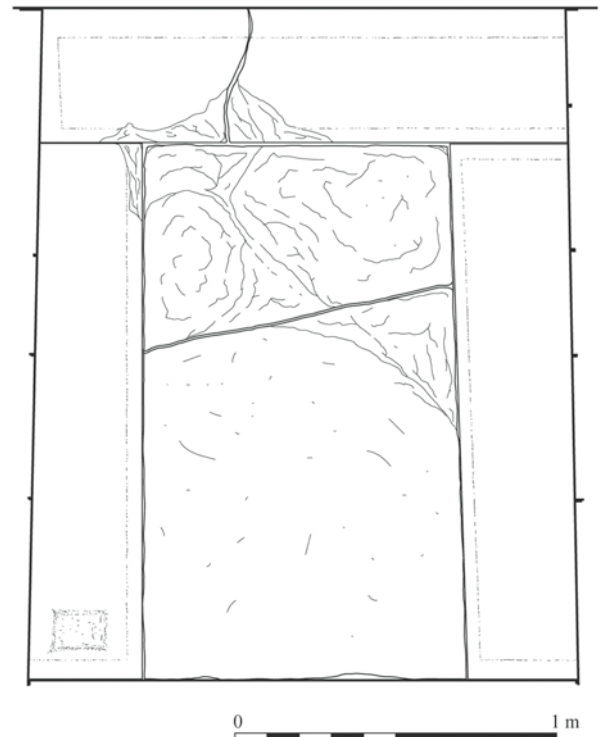


Fig. 76. Transversal section of the vestibule, looking north. By O. Henry.



Fig. 77. The doorway between the vestibule and the main chamber, seen from the vestibule.

front of the sarcophagus.³³ The eastern sarcophagus is wider than the western one (92 and 62 cm, respectively).

The damage caused by tomb robbers is particularly visible in this chamber: the eastern sarcophagus is almost completely destroyed (see Fig. 67), while the vertical slab of the western sarcophagus has been smashed and only its southern part is preserved (see Fig. 80). The floor of the chamber also suffered from illegal excavations as only three of the original four slabs are still *in situ* (see Figs. 67, 77 and 81). One of the ashlar blocks of the back wall of



Fig. 78. The lintel and the east jamb of the doorway between the vestibule and the main chamber, seen from the chamber.



Fig. 79. The threshold block for the doorway between the vestibule and the main chamber, seen from the chamber.

³³ This type of built sarcophagus starts to be particularly widespread in built tomb chambers dating from the fourth century BC onward. Similar examples are numerous both in and outside Karia. In Karia, see the Built tomb at Labraunda (Henry 2006), the subterranean chamber tombs at Alaçam (Henry 2009, 197–199), Alinda (Özkaya and San 2003, 117), Beçin (Kızıl 1996), Elmacık (Paton & Myres 1896, 262–263), Mylasa (Akarca 1952, 399–405 and Le Bas & Reinach 1888, pl. 64), Orthosia (Henry 2009, 251–255) and Pladasa (Henry 2009, 257–259); the tumuli at Altıntaş (Paton 1900, 66) and Kavaklı (Henry 2003).

the chamber has also been destroyed, revealing the surprising presence of a second, outer, wall made of large schist blocks (Fig. 82). Although not certain, we suspect this outer wall to enclose the whole subterranean structure.



Fig. 80. The west sarcophagus in the main chamber.



Fig. 82. The outer schist wall, seen through a hole in the back wall of the chamber.



Fig. 81. The main chamber seen from the vestibule.



Fig. 83. The beams of the chamber ceiling.

The ceiling of the chamber is made of two monolithic beams, oriented north-south, supporting three 35-cm-thick flagstones (*Figs. 83–84*). The beams, regularly placed every 75 cm, rest on a projecting cornice running atop the four walls (see below *Fig. 90*). The top row of the walls,

above the cornice, and the sides of the beams are carved with two *fasciae* crowned by a second cornice (*Fig. 84*).³⁴

³⁴ A very similar ceiling system was discovered in a tomb in Milas, see Akarca 1952.

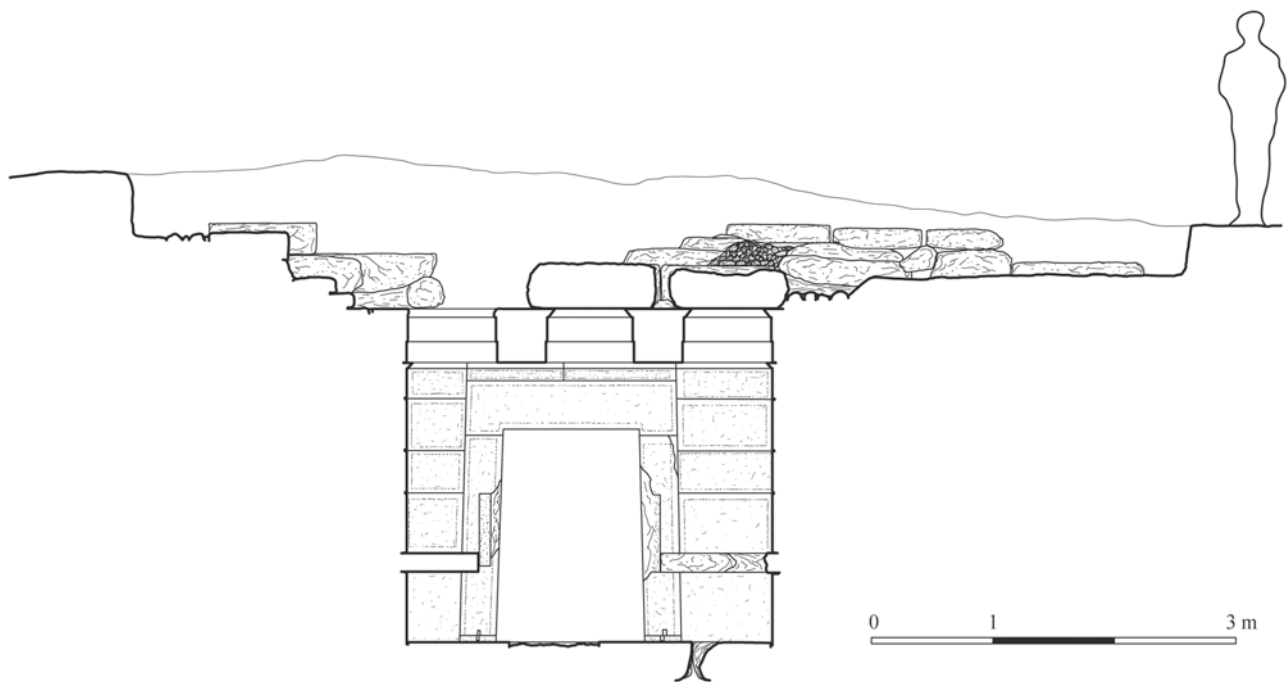


Fig. 84. Transversal section of the chamber. By O. Henry.



Fig. 85. The regular masonry of the east wall of the vestibule.



Fig. 86. Pi-shaped clamps on the top of the north wall of the main chamber.

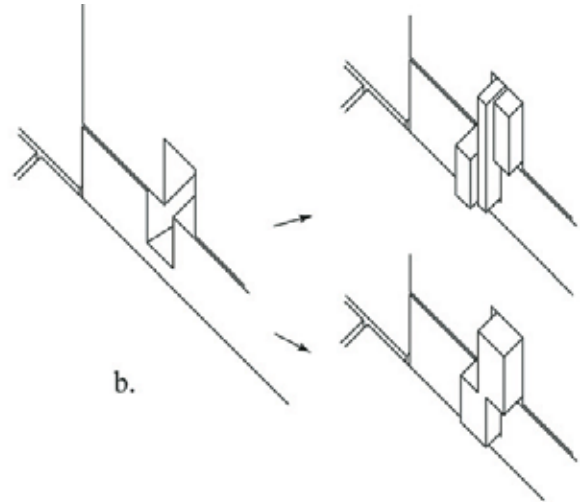
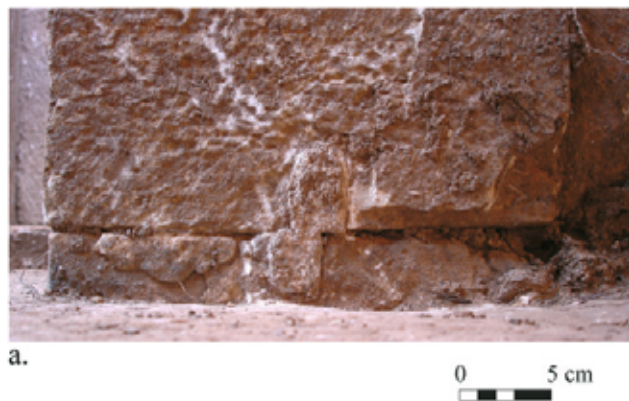


Fig. 87 a. Zigzag-shaped lead-covered dowel in situ between the threshold block and the east jamb of the chamber doorway, seen from the chamber; b. Proposal for the restitution of the dowel construction.

Building technique and material

The whole subterranean tomb structure, from floor to ceiling, has been built in a white and grey marble. A thin orange layer, caused by water running in from the outside and carrying the reddish earth that contains metallic particles, now covers the walls of the chamber and vestibule. Nonetheless, the original colour of the marble can still be seen on the soffit of the ceiling flagstones.

The walls are pseudo-isodomic with courses varying between 27 and 52 cm (Fig. 85). The length of the blocks varies between 0.45 m and 2.07 m. As was mentioned earlier, while the four walls of the main chamber are perfectly vertical, both sidewalls of the vestibule lean inward, with a difference of 4 cm from bottom to top (about 1.9%). This shape and symmetry is reflected in the doorway between vestibule and chamber, but not in the doorway of the main entrance where the western jamb is perfectly vertical, while the eastern jamb leans 7 cm inward (about 4.2%: see Fig. 76).

In several places one can observe the use of two different types of metallic bindings composed of a bronze core covered by lead. Horizontal pi-shaped clamps were utilized between the blocks of the walls (Fig. 86), while rectangular prism dowels were used between the thresholds and the vertical jambs of both doorways. Some of these dowels are quite unusual, not only because they were placed at the edge



Fig. 88. Detail of the treatment of the western wall of the chamber.



Fig. 89. View from above of an anathyrosis cutting on the upper face of a block in the back wall of the chamber.

of the blocks, but also because the upper and lower parts of the clamp holes are not lined up (Fig. 87a–b).³⁵

The marble ashlar blocks have been cautiously dressed. They carry a carefully polished *anathyrosis* framing a recessed rectangle treated with a point (Fig. 88). The upper face of a block, uncovered by the partial destruction of the southern wall of the chamber, shows another *anathyrosis* band placed in the middle of its length, probably for receiving the edge of a block from the row above (Fig. 89). This feature seems to reveal that *anathyroseis* were probably carved on-site, during the construction of the tomb.

Finally, we noticed the unusual solution used by the builder of the tomb at the corners of the *epikranitis* of the



Fig. 90. Detail of the corner between a ceiling beam and the epikranitis of the wall in the chamber.

chamber walls. The only parts of the mouldings to be diagonally cut are the cornices, whereas the contacts between the *fasciae* are orthogonally arranged (Fig. 90). This feature also appears in the marble window frames of Andron A in Labraunda.³⁶

Finds

Pottery and tiles

The amount of material retrieved from the tomb itself and its immediate surrounding was impressive. Although no complete piece could be collected, it nonetheless revealed the wealth of the grave goods and the many reuses of the tomb.

Most of the pottery was found in the immediate vicinity of the structure. It is not surprising considering the regular pillaging of the tomb. The material dates from the middle of the fourth century BC to the Middle Byzantine period.

³⁵ Metallic clamps, whose holes are usually symmetrically arranged, are typically placed behind the edge of the blocks and could not be seen, see Ginouvès & Martin 1985, 108–114, pls. 28–29. The only cases with visible clamps seem to be found in Labraunda, notably on the stylobate and architrave of the *Oikoi* (Hellström 2007, 121–123). As for the dissymmetry between the two clamp holes, one could explain it either as the result of a miscalculation or by a “double gamma” type of clamp, although the latter is mainly found in fifth-century mainland Greece rather than in fourth-century Anatolia (I am very thankful to P. Pedersen for these useful comments).

³⁶ I am thankful to L. Karlsson and P. Hellström for this observation.

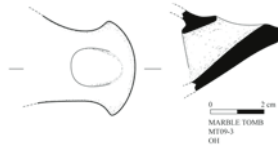


Fig. 91. Triangular mouth of a Roman volute lamp (MT09-3). By O. Henry.

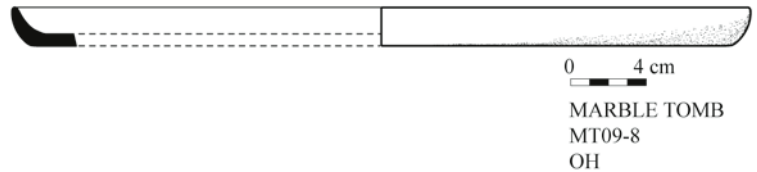


Fig. 95. A piece of a Late Roman red-slip plate (MT09-8). By O. Henry.



Fig. 92. Ring-foot of a Late Classical red-figure krater (MT09-6). By O. Henry.

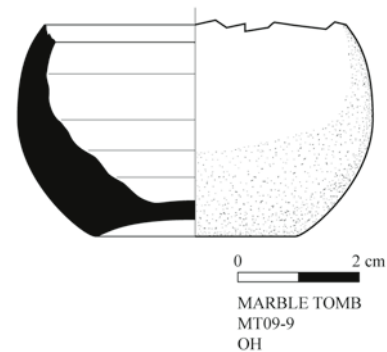


Fig. 96. Hellenistic unguentarium with flat bottom (MT09-9). By O. Henry.



Fig. 93. A piece of a Late Classical red-figure hydria with an ovolo painting (MT09-7)



Fig. 94. Hellenistic Megarian bowl fragment with a meander motif (MT09-5)

Most of it is composed of amphora pieces and large roof-tiles fragments, including fourth-century specimens found *in situ* between the marble flagstones of the ceiling of the tomb.³⁷ Among the best-preserved finds is part of a Roman lamp with a triangular nozzle (MT09-3), dated to the first century BC or the first century AD (Fig. 91).³⁸

The space immediately in front of the façade had escaped illegal excavations. It revealed the presence of a deep access ramp filled up with a homogeneous level of black soil mixed with high-quality pottery fragments dating from the fourth century BC to the fourth century AD. The best samples are a piece of a fourth-century BC Attic black-gloss krater base from a Maussollan context³⁹ (MT09-6, Fig. 92); a fragment of the neck of a red-figure hydria containing a panel with an egg pattern (MT09-7, Fig. 93), dated to the first half of the fourth century BC;⁴⁰ a small piece of a Megarian bowl (MT09-5, Fig. 94) of the “Delian type” with

³⁷ The same type of roof-tiles was found in the Hekatomnid levels of the Acropolis Fortress, see above.

³⁸ For an early chronology, see *Labraunda* II:1, 49, cat. nos. 26–27, where this kind of lamp is compared to Knidian lamp types. For the later chronology, see Mlasowsky 1993, 253; Goethert 1997, M198; Loeschke 1919, 523.

³⁹ See Roos 1974, pl. 4:1 and *Maussolleion at Halikarnassos* 7, pl. 53, cat. no. L29; also Robinson 1950, cat. nos. 27, 29, 38, 39 (all early fourth century BC).

⁴⁰ Very similar piece in Robinson 1950, pl. 59, cat. no. 45.



Fig. 97. Ring-foot from a Byzantine cooking pot (MT09-11).

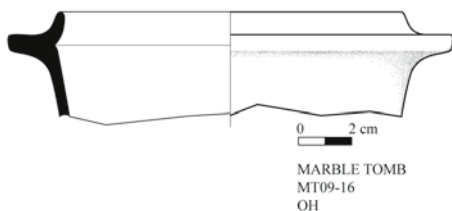


Fig. 98. Hellenistic jar-rim fragment (MT09-16). By O. Henry.

a meander motif, dated between *c.* 150 and 50 BC;⁴¹ many fragments of very fine red-slip ware, dating from the third and fourth centuries AD (MT09-8, *Fig. 95*⁴²) and a sherd of a green-glazed Middle Byzantine bowl (MT09-2).

From the vestibule we retrieved a number of ceramic fragments from the Hellenistic to the Byzantine period. Among them are pieces from a Hellenistic unguentarium with flat bottom (MT09-9, *Fig. 96*); a Roman cooking pot (MT09-10), and a ring foot from a Byzantine glazed vessel (MT09-11, *Fig. 97*).

Compared to the other excavated areas, the main chamber produced a relatively small amount of material, dating from the Early Hellenistic (only one example) to the Middle Byzantine periods. It includes the bottom of a fourth century BC local black-gloss bowl (MT09-17), a third century BC fragment of a jar rim (MT09-16, *Fig. 98*), a handle of a Late Antique amphora (MT09-18, *Fig. 99*) and many fragments of green-glazed Middle Byzantine pots.

Metal

This year we found very few metallic pieces. Beside two bronze fragments, the excavation carried out in front of



Fig. 99. Handle from a Late Antique amphora (MT09-18).



Fig. 100. Folded lead sheet from the area in front of the tomb façade.

the façade of the tomb unearthed a folded lead sheet (*Fig. 100*), which is not part of the covering of a metallic clamp.

Bones

Many bones were found both in the vestibule and in the chamber of the tomb. Although it seems that most of these bones belong to animals that might have fallen through the hole in the ceiling and been trapped in the tomb, they have been brought to Sweden for analysis by osteologist Anne Ingvarsson-Sundström.

Egg-shaped objects

In a previous publication we mentioned the existence of egg-shaped stones retrieved from rock-cut sarcophagi of the Labraunda necropolis.⁴³ The excavation of the Marble Tomb increased significantly the number of egg-shaped objects discovered by five new specimens (*Fig. 101*). One of them was found outside the tomb, directly above the ceiling of the chamber. It is a greyish stone, 9 cm in length and 5.8 cm in width. The others, collected in the vestibule,

⁴¹ *Labraunda* II:1, 21, cat. nos. 105–107.

⁴² We noticed that the red slip is not well fired, indicating that those vessels were never produced to be used in a domestic context.

⁴³ Karlsson 2008, 120.



Fig. 101. Egg-shaped stones found during the excavations, from left to right: MT09-1 (from the outside), MT09-14, MT09-13 and MT09-12 (from the vestibule).



Fig. 102. Two egg-shaped terracottas from the vestibule of the tomb (MT09-15).



Fig. 103. The new fence protecting the Marble Tomb.

go from white to yellow to reddish. Their length varies from 3.5 to 9.4 cm. Besides these stone pieces, we also found two egg-shaped terracotta objects (Fig. 102). Their size and profile are perfectly comparable to the previous ones. Although terracotta eggs seem to have been more widespread in Antiquity than stone eggs,⁴⁴ these are the first examples from the Labraunda necropolis.

Conclusion

The Marble Tomb of Labraunda had a long history. It was built sometime in the middle of the fourth century BC and was then reused for centuries. We cannot clearly estimate the date of its last reuse. Nonetheless, the presence of Late Roman pottery fragments in the filling of the access ramp leading to the replaced door of the tomb gives us a *terminus post quem* around the third to fourth centuries AD. It is possible that the Byzantine material found outside on the platform as well as in the vestibule and in the chamber of the tomb, indicates the last reuse of the tomb for burials.

In such case the Marble Tomb would have been in use for almost ten centuries, from the Late Classical to the Middle Byzantine period.

This tomb type is not unusual in Karia and it can be found in many other places.⁴⁵ Nonetheless, only a handful of such tombs have been excavated.⁴⁶ Although there might have been earlier examples of such funerary architecture in Karia,⁴⁷ most of the subterranean chamber tombs with transversal beams seem to belong to the same period, from the mid to the late fourth century BC, a date that is confirmed by the excavation of the Labraunda Marble Tomb. In a recent publication, I have argued that this tomb type might in fact have been inherited from an earlier wooden model.⁴⁸ The discovery of the surrounding subterranean schist wall, together with the outer platform and the presence of roof-tiles on the top of the tomb, not only support this theory but also enrich it with sophisticated architectural features that were not previously observed.⁴⁹

We could not find a satisfying explanation for the very large size of the outer platform. One purpose seems to have been to protect the subterranean structure, but the unusual dimensions, which outsize the surface of the subterranean

⁴⁴ Nilsson 1951 [1902]; Carter 1998, 118, 120 and 196.

⁴⁵ At Alabanda (Edhem Bey 1906), Alaçam (Henry 2009, 197–199), Beçin (Kızıl 1996), Halikarnassos (Newton 1865, V), Mylasa (Akarca 1952; Le Bas & Reinach 1888, pl. 64, and Kızıl 2009, M33), Orthosia (Henry, forthcoming a), Tekke Kale (Paton & Myres 1896, 259), etc.

⁴⁶ One in Alabanda, three at Mylasa and one near Beçin (see supra n. 34).

⁴⁷ As shown by the late sixth-century-BC monumental tomb at Beçin (Henry 2009, 135–137).

⁴⁸ Henry 2009, 166–167. A more detailed discussion on funerary architectural petrification in Karia will appear in Henry forthcoming b.

⁴⁹ Among the few preserved wooden tombs known and excavated in Anatolia, one common feature is the presence of a structure built in stone and surrounding a wooden tomb construction. See for example the excavation of the Phrygian tumuli at Gordion: Kohler 1995 and Young *et al.* 1981. The Tatarlı tumulus has not yet been fully excavated, and therefore it is impossible to confirm the presence of such a stone wall around the wooden chamber.

building, could also indicate that it was related to some cultic activities performed on the top of the tomb. Since we lack the upper part of this structure, it is difficult to know whether it carried a superstructure, or even if it was visible at all. Nonetheless, subterranean chamber tombs with a superstructure are not unknown in Karia.⁵⁰ Superstructure or not, the quality of the Marble Tomb, together with the finds retrieved from the tombs in the previous campaigns, confirm the wealth and probable aristocratic status of the individuals buried in the early Hellenistic period, around Labraunda and along the Sacred Way that leads from Mylasa to the Sanctuary of Zeus Labraundos.

In order to protect this major marble chamber tomb from further depredation, the entire structure was surrounded with a high fence provided with an information sign in English and Turkish (*Fig. 103*).

LARS KARLSSON

Department of Archaeology
and Ancient History
Uppsala University
SE-751 26 Uppsala
lars.karlsson@antiken.uu.se

JESPER BLID

Department of Archaeology
and Ancient History
Stockholm University
SE-106 91 Stockholm
jesper.blid@antiken.su.se

OLIVIER HENRY

Institut Français
d'Études anatoliennes
Palais de France
Nuru Ziya Sokak, 10 P.K. 54
TR-344 33 Beyoğlu - Istanbul
olivier.henry@ifea-istanbul.net

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⁵⁰ See for example at Beçin (Henry 2009, 135–137), Halikarnassos (*Mausolleion at Halikarnassos* 5), Iasos (Henry 2002 and Henry 2004), Orthosia (Henry forthcoming a), Tekke Kale (Paton & Myres 1896, 259), etc.

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