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The Longue Durée of Funeral Culture: A Recently Discovered Burial Precinct at Pergamon

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Introduction

Apart from the iconic tumuli, only a few Hellenistic burials have been explored in Pergamon so far[1]. Common phenomena of Hellenistic funerary culture, such as the construction of graves along the arterial roads (›Gräberstraßen‹)[2], have not yet been recorded. This means that the burials belonging to broad social groups below the ruling dynasty and the courtly elite are more or less missing in the record. While the top social strata are at least partly to be found in the above-mentioned burial mounds, the graves of the upper and middle strata of Pergamenian society have been handed down to us primarily through grave stelae and other markers[3].

This gap was at least partially filled by the excavations in the 2020 campaign on the central northern slope of the city hill of Pergamon. An architecturally elaborate burial precinct with graves from the Hellenistic and Roman periods was uncovered along an ancient main road after its accidental (re) discovery in 2019 (fig. 1)[4]. This finding provides a first idea of the appearance and spatial organisation of a Hellenistic tomb-lined street in Pergamon. The continued use of the burial precinct over several centuries offers clues about continuities and changes in the funerary culture of ancient Pergamon. Due to these and other important insights, the archaeological context, the inventories of the tombs and initial palaeo-anthropological observations on the cremated human remains will be briefly presented here[5]. This, however, is not intended to anticipate the detailed final publication based on further evaluation.

Location, Architecture and Burials

The grave precinct is part of a larger context including an apparently circular building structure further to the north and a road, the course of which can be traced on the basis of the remains of retaining walls and in the relief of the terrain[6]. This is most likely an arterial road coming from the Northeast Gate, which connected the acropolis of the city hill with the valleys of the Ketios (Kestel Çayı) and the Selinos (Bergama Çayı).

The complex uncovered in 2020 is composed of two circular buildings and a terrace between them,

1 See the contribution by F. Pirson in this volume.

2 The Hellenistic grave roads of Asia Minor have not yet been systematically examined, which is also due to a lack of published findings. One exception, thanks to Christof Bern's research, is the necropolis of Knidos, where numerous burial sites of the 4th to 1st cent. BC are oriented towards the eastern arterial road: Berns 2013. A first impression of the lay-out of Hellenistic grave streets in the immediate surroundings of Pergamon is offered by the north-west necropolis of Elaia (see the contribution by F. Pirson in this volume).

3 See Kelp 2014, 360–365.

4 Pirson et al. 2021, 235–241. For the location see Pirson (in this volume) fig. 10.

5 The presentation of the archaeological findings is based on the preliminary report on the 2020 campaign (see n. 4).

6 See Pirson (in this volume) fig. 9. 10.

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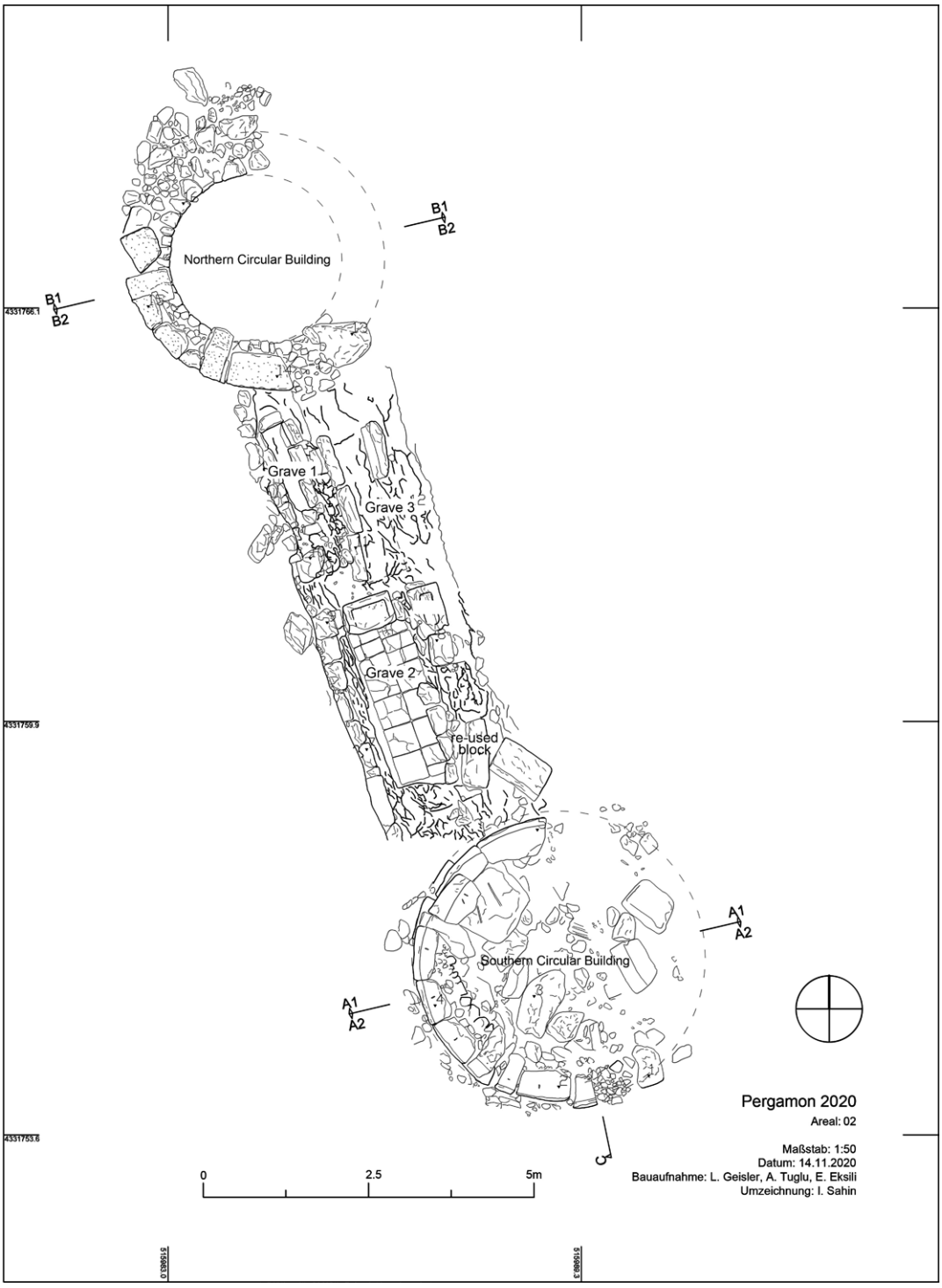
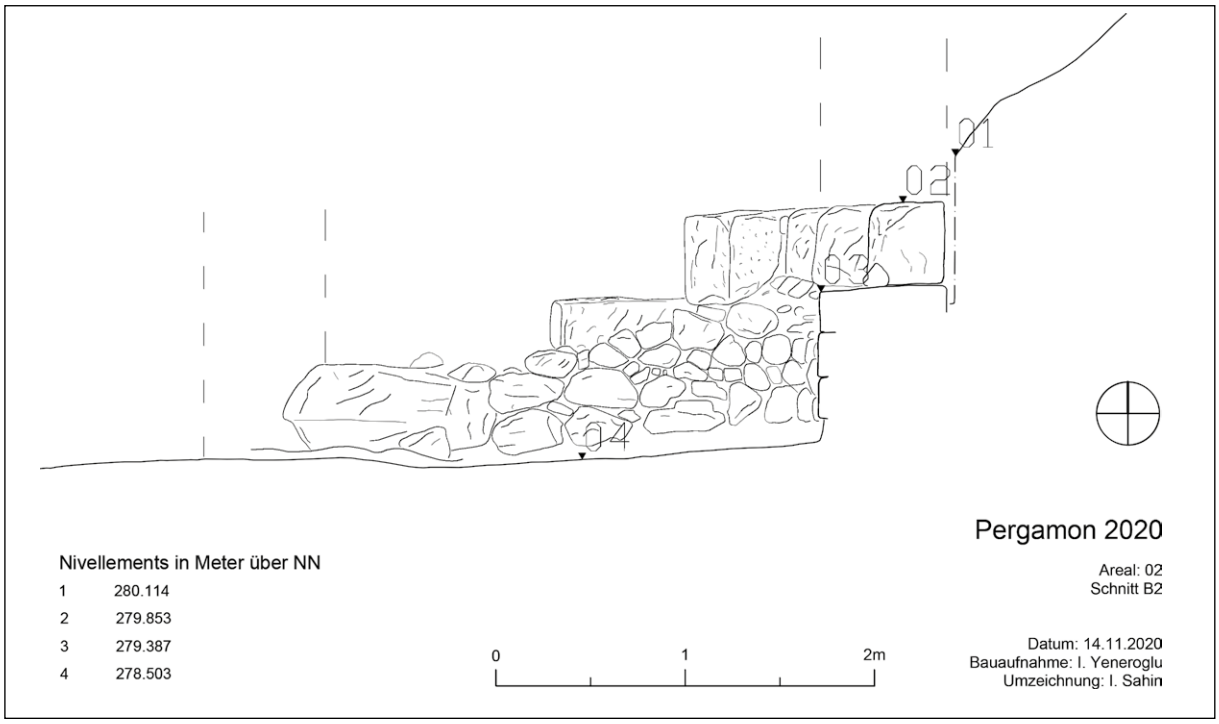


1 Pergamon, City hill. Northern slope. Plan of the burial precinct

which apparently came into being gradually with the construction of three graves (figs. 1. 2). Similarities in dimensions, construction techniques and the position of the round buildings in relation to the road above indicates that the elements described in the following belonged to one burial precinct, which has successively emerged in a cluster-like structure and was used repeatedly over centuries. The term ›precinct‹ shall not suggest, however, that we have evidence for continuous joint ownership by one family or social group over centuries. ›Precinct‹ rather describes a coherent spatial composition of various elements within the context of a grave road that so far has only been excavated in a very limited area. This

2 Pergamon, City hill. Northern slope. Aerial view of the burial precinct



3 Pergamon, City hill. Northern slope. Section through the southern round building

composition might have been formed over time and in this respect differs from an enclosed precinct in the sense of a funerary *temenos*.

The excavation of 17 m × 4.5 m (PE20 Ar02) was oriented approximately north-south. The areas actually uncovered correspond to the extent of the two round buildings and the terrace. Downhill the features have been severely destroyed by hillside erosion, while uphill they have survived to a height of almost two metres.

4 Pergamon, City hill. Northern slope. Northern round building. View from northwest. Surface of the building-terrace

The southern round building (figs. 1–3) has an outer diameter of 4.44 m. It consists of a two-mantle circular wall with a filling of stone fragments and earth. Three rows of large-format andesite ashlars of the circular wall's outer face have survived, and a fourth row can be reconstructed. The lowest row of ashlars sits either on a layer of small andesite rubble or directly on the bedrock. Observations on the construction process and its execution testify to the quality and status of the building. The inner mantle of small andesite stones is set against the roughly bossed backs of the ashlars; in places, features of natural rock are also incorporated into the wall. The filling of the round building, which was largely free of finds, probably consisted mainly of erosion material from the slope. There is no evidence of burial inside the round building, but this could of course also be due to the loss of a large part of the building.

Whether a *terminus post quem* for the construction of the southern round building can be gained from the few pottery fragments from the backfill must still be determined. A conspicuous concentration of sherds together with the fragment of a floor tile can be convincingly associated with the adjoining grave 02 to the north, indicating that the circular building must already have been partially destroyed when this grave was disturbed by looters. Since an ashlar from the southern round building was apparently reused for the enclosure of grave 02, the collapse of the round building predates if not the erection of grave 02 then at least the repair of its boundary wall.

The northern circular building (figs. 1. 2. 4) is somewhat smaller than its southern counterpart with an outer diameter of maximum 3.98 m. The circular structure is more completely preserved here; hence an internal diameter of maximum 2.69 m can also be determined. Concerning their construction, both circular buildings are directly comparable; there are only deviations in their details. In the case of the northern building, the terrace was cut into the erosion material of the natural rock. The excavated material was then reused to fill the circular building and was largely free of finds.

Between the two round buildings extends a terrace with a base area of approx. 7 m × 2 m (figs. 1. 2). A communal retaining wall against the slope is missing, as is a uniform enclosure. The southern half of the terrace is occupied by the particularly elaborate grave 02, while in the northern half graves 01 and 03 are arranged next to each other, but at the same time slightly offset and on different levels. The long rectangular grave pits are sunk into the rock or its eroded material (grave 01 and 02) or use its worked surface as bottom layer (grave 03). The cist grave 03 is mainly preserved in its western enclosure consisting of three carefully carved orthostats. Only one ashlar has survived from the eastern enclosure, but the burial pit is visible in the rock surface (fig. 5). The remains of the cremation burial consist of a layer of ashes and cremated bones, which were mainly concentrated in the northern section of the burial pit (fig. 6). Several fragmented vessels from the 2nd century BC were placed in the same layer as grave goods (see below). A Hellenistic date is further corroborated by the radiocarbon dating of the charcoal from the crema-

5 Pergamon, City hill. Northern slope. Aerial view of the burial precinct from east. Terrace with (from left to right) graves 02, 03 and 01

6 Pergamon, City hill. Northern slope. Northern part of grave 03 with remains of the cremation including grave goods

tion[7]. Traces of burning and a respective discolouration of the bottom of the pit and the inner sides of the bounding ashlars, but especially the shell-like spalling of the stone, indicate that the grave pit was used as a cremation site. However, the presence of two glass fragments (see below) dating to the Roman Imperial period and a coin probably of the second half of the 1st century AD[8] show that a later reuse of this burial and cremation site has to be considered.

Immediately to the west grave 01 can be found at a slightly higher level. It is supported against the slope by a wall of rubble masonry (figs. 1. 2. 5). The grave pit, set into the rock, is enclosed on all four sides by rubble stones and fragments of cut stones, on the slope side in two layers. The cremated remains were distributed over the entire grave pit and contained, apart from a probably Augustan bronze coin[9], mainly fragments of glass vessels dating to the 1st century AD (see below). A radiocarbon date obtained

7 2122 ± 27 B.P.; 201–51 cal. BC (91.0 %). TÜBITAK-1889 (09.11.2021; T. Doğan).

8 Preliminary identification and dating of the coin by Jérémie Chameroy (Mainz).

9 See n. 8.

from this cremation further supports the dating of grave 01 to Roman times[10].

Grave 02, which occupies the southern half of the terrace, is of outstanding importance in the context of the precinct due to its size and elaborate design. Its status is corroborated by the presence of particularly rich grave goods. For the preparation of the grave pit, the erosion material was terraced and the floor was carefully laid with floor tiles (fig. 2. 5). One of the tiles bears a stamp that is documented several times on Hellenistic buildings in Pergamon[11]. Against the slope, the terrace is supported by a wall made of small ashlars that rests on a levelling layer of andesite slabs. Below this follows the worked erosion material of the natural rock, which also serves as the western boundary of the burial pit. To the east, the pit is bordered by a partially preserved wall of very carefully worked cut stones. The two narrow sides of the grave made of the erosion material were artificially raised, for which a base of andesite with a rectangular carving was used in the north. Due to its position, it is likely that the base carried a stele (now lost) as the marker of grave 02. A second base can be referred to as reused building material because of its integration in the middle of the wall. The use of a cut stone from the immediately adjoining southern round building in the eastern enclosure of grave 02 proves once again that material from older funeral architecture was used in the construction (or repair?) of this grave.

From the burial itself, a layer of ashes and cremated remains has survived on large areas of the brick floor. However, it was extremely poor in finds and contained, apart from a few sherds of glass of Roman Imperial date (see below), the fragment of a gold sheet. The charcoal from the cremation belongs to the Roman Imperial period as well[12]. Within the burial pit, there are various indications of great heat exposure, such as spalling or even crystallisation of stone surfaces or molten lumps of lead between the joints of the slab floor. Hence it can be assumed that the spacious pit was also used as a cremation site.

Immediately outside the south-east corner of grave 02, a concentration of soil interspersed with ashes has been observed, which proved to be Hellenistic in date[13]. Embedded in this material, a completely intact gold earring (see below), the end of which is shaped like an antelope's head, was found along with cremated bones. From the same context came a fragment of golden jewellery and further gold-sheets which resemble the single fragment of a gold sheet found in the burial pit. The earring can be dated to the 3rd century BC and, together with the other gold finds, gives an impression of the original wealth of the burial.

Until further evaluation of the excavation has been carried out, no conclusive explanation can be given for this unusual context. One might imagine the secondary relocation of cremated remains and finds from the burial pit to near the enclosure of the grave, for instance in the context of its secondary usage during the Roman Imperial period; indications for this would be the glass fragments and the radiocarbon date of the charcoal from within grave 02. In this context, the eastern enclosure might also have been restored, using a block of the already collapsed southern round building (see above). The conspicuous concentration of a total of seven gold finds together with cremated bones in a spatially very confined area next to the grave may be interpreted as a (pious?) deposit made in the course of such reuse. However, the situation is further complicated by the lack of other grave goods within the pit, which points, together with the collapse of brick slabs and stone fragments into its interior, to a later, post-Roman disturbance of the grave by looters. This might also explain the partly destroyed tile-floor and the fragments discovered in the already ruined southern round building (see above).

10 1948 ± 27 B.P.; 5–132 cal. AD (89.6 %). TÜBITAK-1890 (09.11.2021; T. Doğan).

11 Boehringer – Krauss 1937, 140 (no. 44).

12 1960 ± 27 B.P.; 5–125 cal. AD (91.0 %). TÜBITAK-1888 (09.11.2021; T. Doğan).

13 2064 ± 25 B.P.; 161 cal. BC – 9 cal.CE (95.4 %). TÜBITAK-1887 (09.11.2021; T. Doğan).

Preliminary Conclusions and Perspectives

First observations on the architectural features and the archaeological contexts of a Hellenistic-Roman burial precinct on the northern slope of the city hill indicate, together with the preliminary evaluation of the grave goods and the cremated human remains (see below), the importance of these findings for our understanding of Hellenistic funerary culture at Pergamon and beyond. Within the boundaries of the newly discovered precinct, fresh graves and already partly collapsed monuments must have existed side by side. The picture of a dynamically changing burial ground arises, whose appearance was not shaped by careful maintenance of old monuments but rather by the constant (re-)use of burial precincts over centuries. This leads to the assumption that spatial continuity was more important than the preservation of architectural structures or individual graves.

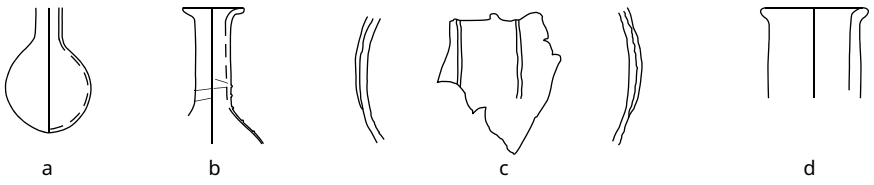
The round buildings, which can perhaps be interpreted as substructures of small tumuli[14], are crucial for the lay-out of the entire precinct and hence have to be attributed to its original phase. Remains of burials could no longer be verified within them; if they existed, they must have been located in or on top of the lost upper zones of the monuments. On the basis of the reused cut stone from the southern circular structure in the boundary walls of grave 02, we can assume that at least the southern round monument was already heavily damaged in antiquity.

The dating of the foundation of the grave precinct cannot be established with certainty yet. The brick stamp in grave 02, which is well known from Attalid buildings, provides a *terminus post quem* for the erection of this particular grave. A further indication is given by the golden earring, which dates approximately to the 3rd century BC but may also have arrived in the tomb as an antique. The chronological relation between the layout of grave 02 and the southern circular monument remains unclear as yet, but the Hellenistic grave 02 may be roughly contemporary with the two round monuments. The reuse of a cut stone from the southern round building and a base of a stele as building material in the boundary walls of grave 02 might point to a phase of repair of the grave after the partial collapse of the round building, which can be connected tentatively with the secondary cremation suggested by the Roman Imperial glass fragments. Against this background, a Hellenistic origin (perhaps 3rd to 2nd century BC) of the round buildings and grave 02 seems most likely, followed by grave 03 in the second half of the 2nd century BC. The reuse of grave 02 in the Roman Imperial period and the lay-out of grave 01 in the 1st century AD mark the last phase of funeral usage of the precinct. The arterial road next to which the precinct was located must have been built, at the latest, together with the north-east gate of the Eumenian city fortifications in the early 2nd century BC[15]. However, the route from the Acropolis over the northern slope of the city hill into the valley of Ketios may of course be older than the gate and have already been flanked by burials before the erection of the fortification wall.

In addition to the longue durée of the precinct, its chronology and the practices of continuous use and reuse in funeral culture, questions regarding the actors and their potential relations to each other arise. Were there any bonds of kinship or other ties between the patrons of the foundation phase of the precinct and the owners of the later burials? Could such ancestral relationships have influenced funerary practice from Hellenistic times into the Roman Imperial period? An approach to answering these and other questions will hardly be possible from the findings alone; but it is to be hoped that comparative studies and the addition of similar findings in the future will provide further clues. (J. K. – F. P.)

14 Tumuli with a cylindrical base (so-called tambour) are attested at Pergamon and elsewhere. Pergamon: Radt 2016, 225 fig. 172; Hierapolis: Ronchetta 2017, 41–45. On the north-western slope of the city hill of Pergamon an orthostat block has been found that can most likely be attributed to the krepis (or tambour?) of a tumulus: Pirson et al. 2015a, 96 fig. 9.

15 Pirson 2017, 65 f.



7 Pergamon, City hill. Northern slope. Glass and clay vessels from grave 01. Scale 1 : 2

The Inventories of the Graves – A First Assessment of the Clay and Glass Vessels

Grave 01 – Fragments of three glass vessels have survived in grave 01, which can certainly be identified as grave goods. They comprise a tiny greyish green glass balsamarium with a rounded base, a spherical belly, while its rim is broken off (fig. 7 a). Furthermore, there is the upper part of a small greyish green bottle (or balsamarium) with a long neck and an out-turning rim, with a white thread winding spirally around the neck and belly (fig. 7 b). Of the third vessel, most likely a flask with a bulbous body, sherds are preserved that are light turquoise greenish in colour and are adorned with vertical ribs probably pinched from the walls of the body (fig. 7 c). In addition, the slender neck with an out-curving rim of a clay vessel was found, which presumably belonged to a balsamarium (fig. 7 d). The glass specimens as well as the clay balsamarium are not uncommon in the repertoire of Imperial period tombs in Pergamon[16], although the very small spherical balsamarium is a rather rare piece overall.

All pieces can be dated to the 1st century AD. But since the shape of the balsamaria was consistent over a long period of time, and the complete profile of the other vessels is missing, a more precise delimitation is not possible.

Overall, it is noticeable that, with the exception of the almost complete tiny bottle, the vessels are heavily shattered and incomplete. It raises the general question about their attribution to pyre or grave goods and the mode of deposition in the grave which must be answered by further evaluation.

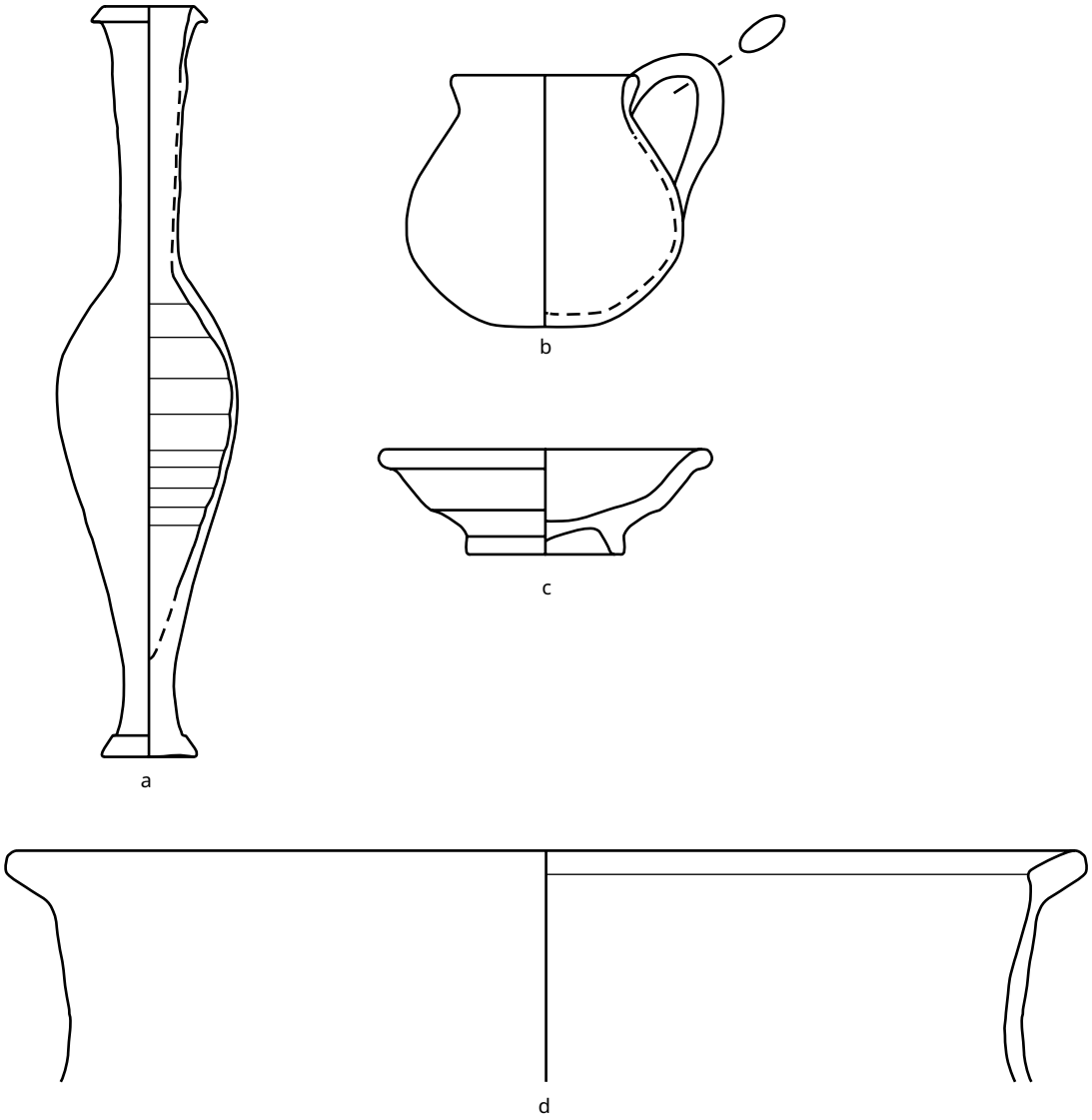
Grave 02 – In addition to the golden sheet in the cremation and the other golden objects in the vicinity of the grave, two fragments of an amber-coloured bulbous glass vessel were found. These were free-blown and have therefore to be dated to the Roman Imperial period. On this basis the most convincing explanation seems to be a later intrusion of the glass fragments into this tomb, potentially caused by a Roman reuse, where the glass fragments may have been a burial object.

Grave 03 – The find complex in grave 03 contained some almost complete objects as well as some with about half or even more missing. In the case of the latter, it is not completely clear whether they are grave goods. They are included – with reservations – because, on the one hand, they fit into the chronological framework of the other pieces and show comparable surface damage and, on the other hand, they are common burial items.

One almost complete spindle-shaped clay unguentarium (fig. 8 a), large parts of a second similar vessel and probably fragments of a third were unearthed. Such unguentaria have been found in Hellenistic tombs in Pergamon[17]. The objects coming from this tomb show a standard form, but due to fire damage it is difficult to establish an exact provenance. In terms of date they belong to the 2nd century BC, presumably the second half of the 2nd century BC. Additionally, fragments of three small drinking vessels were uncovered (fig. 8 b). They can be described as bellied cups with a rounded base, an out-curving rim and a vertical band handle. The specimens correspond to the cups that Norbert Kunisch documented in a stone box tomb in

16 Similar pieces were uncovered in the South-East Necropolis of Pergamon (ongoing research by the author).

17 Kunisch 1972, 99 f. (grave B. C) figs. 5. 7; Pirson et al. 2011b, 144 f. However, these fusiform unguentaria also occur in sanctuaries such as the Kybele sanctuary in Kapıkaya (Nohlen – Radt 1978, 35 pl. 17) and within the dwellings (personal observations).



8 Pergamon, City hill. Northern slope. Clay vessels from grave 03. Scale 1 : 2

Pergamon[18]. Kunisch's observation that these vessels have not been found in the other excavations in Pergamon remains the case; however, neither the clay, matrix nor the temper argue against a local origin. With some probability the cups can be identified as specific grave goods most likely from the 2nd century BC. Additionally, a small carinated bowl covered by a dark grey slip was found in an almost completely preserved condition; this type is again common of the 2nd century BC repertoire of Pergamon (fig. 8 c)[19]. The less well-preserved vessels are composed of four objects: A little more than half of the out-curving rim with angular lip and parts of the neck, the two-bar vertical handle and the belly have survived of a larger storage vessel with a wide mouth (fig. 8 d). Due to comparisons this vessel can be dated to the late 2nd century BC[20]. Moreover, the fragments of a small bowl with incurving rim, the rim and the foot of a jug as well as almost half of the rim and part of the body of either a jug or a cooking pot are extant, too. Even these vessels are not unusual for the Pergamenian repertoire of the 2nd century BC. With regard to provenance, it can be assumed that these pieces were produced locally.

18 Kunisch 1972, 97–99 (grave B) fig. 5. These cups are described with a brick-red clay and an olive-brown matt coating in the upper area. This could also apply to the vessels mentioned here; however, the condition due to usage and storage does not allow a clear statement on this.

19 Cf. Schäfer 1968, 43 C 8 pl. 4.

20 Cf. Rotroff 2006, no. 50 fig. 9.

In addition to the unguentaria, cups, bowls and jugs seem to be also part of the find repertoire of this tomb. The different states of preservation of the vessels may suggest – together with the other archaeological observations – that this was the site of the cremation. After the cremation process, part of the bones and the grave goods were removed, while the remaining bones and parts of the grave goods were left in place.

Two splinters of glass were found, which belonged most likely to a free-blown light yellow-greenish vessel, which indicates a Roman Imperial period date. They do not fit into the chronological range determined by the other vessels. The very small size of the pieces might speak for an accidental intrusion, perhaps in the course of Roman activity within the area. (S. J.)

The Golden Earring with Antelope Head-Shaped Ending: Preliminary Observations

The golden earring with zoomorphic end, probably coming from the initial Hellenistic burial in grave 02, is an exceptionally luxurious item among the few Hellenistic funeral ensembles known so far from Pergamon[21]. It belongs to a widespread earring type dating from Classical to Hellenistic times, and is also known from Asia Minor; variants include animal heads of different species as well as other sculptural representations[22]. Since only a few examples from archaeological contexts are known so far[23], the new find from Pergamon's northern slope is particularly important. At the same time, this outstanding piece of jewellery indicates the status of the burial compared with other Hellenistic graves known from Pergamon and its surroundings so far.

The earring consists of an open ring with an animal head end (fig. 9). The ring is formed of several fine wires, one of them twisted, wound in parallel around a centre, and tapers continuously towards the undecorated pointed end, which attaches to a loop of wire under the chin of the animal head. The thickened ring end is connected with a kind of cuff that conceals the transition to the animal head. It is decorated with a leaf ornament of fine twisted or perhaps notched wire.

The animal head is formed naturalistically with strong contours. The roundish, strongly protruding muzzle, a slightly arched forehead, and deeply incised eyes with pronounced eye angles show almost individualistic features. The empty eye sockets may have contained inlay work[24]. On the cheeks, over the eyes and on the forehead, fur and markings are reproduced. The finely worked and individually set oversized ears are particularly charming. Above them, horns of carefully cut beaded wire are curled in bold arches[25]. Thanks to these specific features, the animal depicted can be identified as an antelope or ibex.

The type of design with the decorated cuff and the ring made of twisted wire can be easily distinguished from later types and corresponds to a frequent form, which Jack M. Ogden calls »plain form« for the earrings from Egypt in accordance with parallel finds elsewhere. It can be dated to the 4th or 3rd century BC[26]. Some parallel finds depict this same variant with the head of an antelope or an ibex, which Ogden refers to the special position of the loop under the chin which, compared to variants with other animal heads, can also be regarded as the animal's beard[27]. According to Michael Pfrommer, earrings with antelope or gazelle

21 Cf. Kunisch 1972; Kelp 2014, 355–360; U. Kelp in: Pirson et al. 2018, 170–175.

22 Hadaczek 1903, 46–49; Marshall 1911, 198; Higgins 1961, 155. 161 f.; Dimitrova 1989, 1–14; Ogden 1990, 151–159.

23 Pfrommer 1990, 168.

24 Hadaczek 1903, 49; Higgins 1961, 162; e. g. compare with the pierced eye sockets of the piece from the Metropolitan Museum, New York (Accession no. 74.51.3458) <https://www.metmuseum.org/art/collection/search/242893> (last access 6.10.2020). Strikingly empty eye sockets are also found in other animal head types; the eyes of a bull seem to be inlaid with silver granules: Metropolitan Museum, New York (Accession no. 74.51.3475) <https://www.metmuseum.org/art/collection/search/242910> (last access 6.10.2020).

25 The beads in the area behind the ears show less abrasion and may have an equatorial section and thus show indications of manufacture, cf. <http://www.rdklabor.de/wiki/Filigran_(Filigranarbeiten,_Filigrandraht)> (last access 26.10.2020).

26 Ogden 1990, 152; Higgins 1961, 161–163; Hadaczek 1903, 47 f.

27 Higgins 1961, 162 (Variant IV); Hadaczek 1903, 47; Ogden 1990, 155.

9 Pergamon, City hill. Northern slope. Golden earring from outside the south-east corner of grave 02

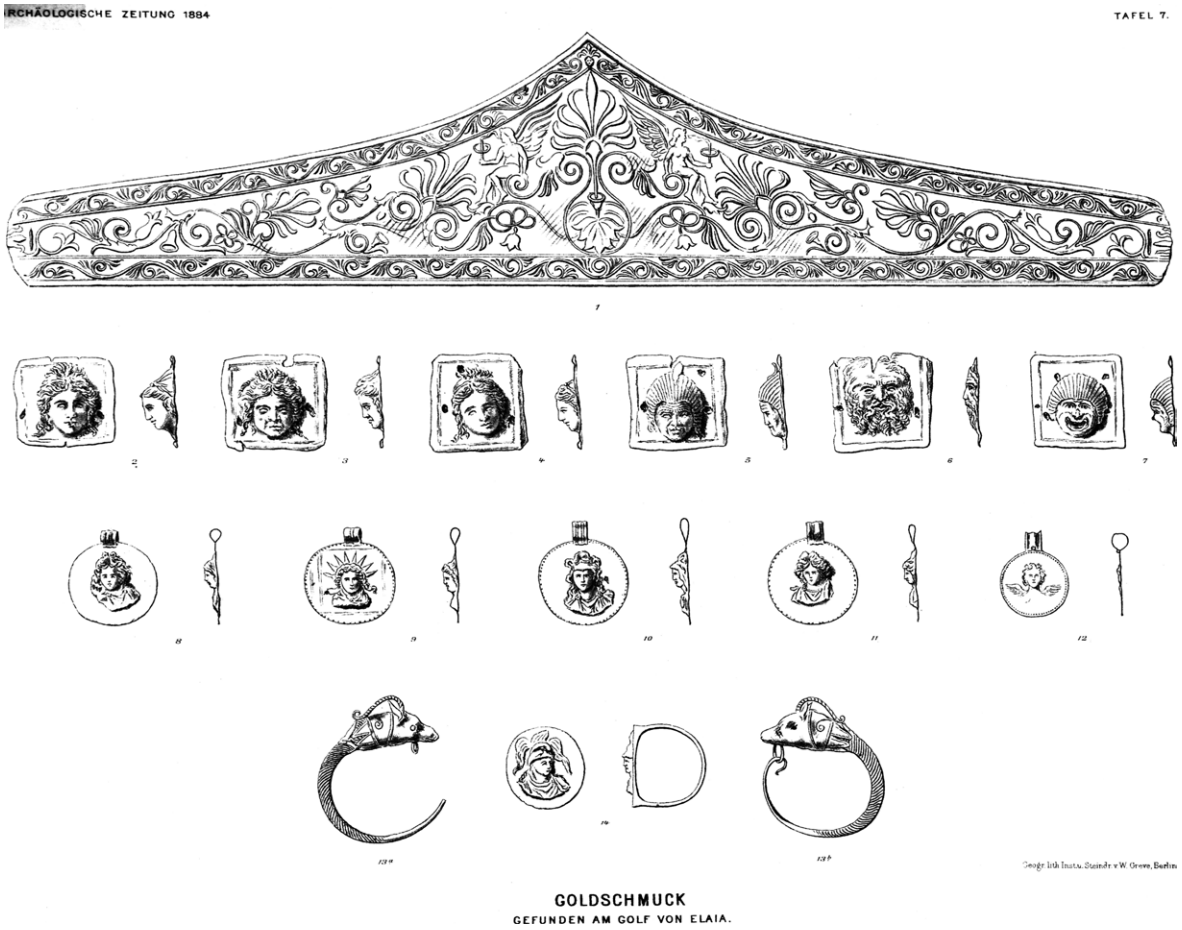
heads do not appear earlier than around the middle of the 3rd century BC[28]. The idea of a derivation of the animal head earrings from Achaemenid precursors, assumed in earlier research, is refuted by Pfrommer[29]. The distribution of earrings of this type suggests an attribution to a Ptolemaic rather than a Syrian-Seleucid workshop circle, with the earliest datable examples in the treasure of Tuch el-Karamus[30].

Earrings such as the piece from Pergamon were worn »upside down«[31] within the context of the grave inventory, the earring does not allow any reliable conclusions about the sex of the buried person. Ogden refers to examples from the Hellenistic period in Egypt with pictures of women wearing earrings with zoomorphic ends[32]. Karl Hadaczek had already depicted the bronze mask of a female face with a zoomorphic earring from Vienna and Frederick H. Marshal shows a mirror lid with a corresponding representation[33]. In Thrace, earrings with lion heads were occasionally found in graves associated with weapons and other objects, which would be at least atypical for the burial of women, although this does not necessarily prove that they were worn by men[34].

The Metropolitan Museum, New York, holds a large number of decontextualised zoomorphic earrings, mainly with provenance in Egypt and Cyprus[35]. Further finds are known from Israel[36].

Examples comparable to the variant from Pergamon are known from elsewhere in Asia Minor, too. Particularly significant is a pair of earrings from a burial ensemble allegedly found at the Gulf of Elaia and studied in an Izmir private collection by Alexander Conze in the late 19th century (fig. 10)[37]. Elaia (Zeytindağ) served as Pergamon's main harbour in antiquity and was closely connected to the residence-city of the Attalids. Hence it has been assumed that burials recently studied at Elaia might complement the fragmentary picture of Hellenistic funerary culture at Pergamon[38]. The use of earrings of the same type in burials at both sites points to parallels in the funerary culture. The ensemble of jewellery from Elaia (fig. 10) – the provenance and integrity of which is not beyond doubt[39] – conveys an idea of what might have been lost from the Hellenistic burial in grave 02. The fragment of another piece of golden jewellery and some further gold-sheets found together with the earring at Pergamon (see above) might be remnants of a diadem as documented in the ensemble from Elaia.

28 Pfrommer 1990, 168 f.
29 Pfrommer 1990, 143.
30 Pfrommer 1990, 168. 171 f.
31 Pfrommer 1990, 168.
32 Ogden 1990, 158.
33 Hadaczek 1903, 48 fig. 87; Marshall 1911, 198 fig. 60.
34 Dimitrova 1989, 14.
35 E. g. the following (Accession nos. 74.51.3459 and 1992.263.1) and at least ten more ibex- or antelope-shaped earrings in the online catalogue of the Metropolitan Museum New York: <https://www.metmuseum.org/art/collection/search/242894>; <https://www.metmuseum.org/art/collection/search/256136> (last access 6.10.2020).
36 Fortner 2008, 66. 297, pl. 81, 1423.; <https://www.timesofisrael.com/rare-2200-year-old-earring-a-goldmine-for-scholars-of-hellenistic-era-jerusalem/> (last access 10.11.2020).
37 Pfrommer 1990, 171 fig. 31; 239. 356 OR 29 with reference to Hadaczek 1903, 47 n. 1; 49 and Conze 1884, 91, pl. 7, 13 a. b. Cf. Pace 2016, 171–173 with n. 2. Pace attributes this ensemble of jewellery to Kyme or its immediate surroundings, but the alleged provenance given as »Gulf of Elaia« or »Elaitic Gulf« rather points to the Gulf of Elaia (Çandarlı Körfezi) itself than to the southern secondary gulf where Kyme is located.
38 See the contribution by F. Pirson in this volume (p. 125).
39 Conze 1884, 89.



10 Jewellery ensemble, allegedly from a burial at the gulf of Elaia

Two golden dog heads from Tumulus II in Pergamon are quoted erroneously in the literature as fragments of zoomorphic earrings[40]. Thus the piece of jewellery presented here is the first earring of this kind found in Pergamon. Against the background of the little known high-quality Hellenistic jewellery from Pergamon, the newly-discovered earring is of special importance for our knowledge of the material culture at the Attalid residence. Among the known pieces of this type of earring, it represents an outstandingly crafted example of that particular period[41]. (A. P.)

40 Marshall 1911, 198 (Molosser [?]); Higgins 1961, 162 (Variant VI head of a dog) with n. 6; probably also Dimitrova 1989, 6 fig. 18 (lion); Jacobsthal 1908b, 434 suspects their association with the short sword. See the contribution by U. Kelp et al. in this volume.

41 The author is currently working on a PhD research project on a complete inventory of jewellery and dress accessories from the city hill of Pergamon.

First Observations on the Cremated Human Remains from the Precinct and the Practice of Cremation at Hellenistic and Roman Pergamon

During the campaign of 2021, all cremated remains (from here on: ›cremains‹) from graves 01, 02 and 03 in the burial precinct were carefully cleaned and dried[42]. It became clear that most cremains are quite small in size and weight, and their colour is mostly whitish. The cremation process caused parabolic heat cracks in long bones[43] and skull fragments as well as irregular cracks. Furthermore, there are heat related deformations. According to the relevant literature[44], all these changes are consistent with pyre temperatures above 650–700 °C.

To date, only parts of the cremains from the Roman Imperial grave 01 could be studied more closely. The gracility of the cremains, in particular of the mandible and the cervical vertebrae, but also of the long bones, most likely indicates a female (F > M). The bone ring of the vertebrae is fused, indicating an adult individual of above 20/25 but very possibly below 40 years of age. The detailed analyses of the cremains, planned for 2024, will give further information. The cervical vertebrae do not show degenerative changes, which is also consistent with a younger adult age. The mandible testifies to a certain degree of paradontopathies, which can also be expected at this age[45].

Cremation burials of different types are present in the Roman South-East Necropolis on the eastern slope of the city hill[46]: There are *bustum* burials and depositions of urn graves, and at least one half cremated individual. Whether this was a victim of a fire or a »cremation which went wrong«[47] is still unclear. The number of cremations is relatively small compared to the inhumation burials, which predominate by far. In the mainly Roman Imperial South Necropolis of the lower city, there are some cremations as well[48].

The cremations from the South-East Necropolis display a whitish appearance, parabolic and other cracks and heat related deformations. This means they were mostly cremated at temperatures above 650–700 °C or even 800 °C[49]. They are also comparable with the cremains from Aigai, presented in this volume[50]. Typical are the small fragments of the cremains, often measuring less than 20 mm or even 10 mm. Small fragments of cremated bones are quite typical when the funeral pyre with the hot cremains is extinguished with water, wine or other fluids.

However, most of the cremations from the South Necropolis excavated by the Museum of Bergama show different features. In the case of a cremation from plot 191 Ada, 8 Parsel (PE16 ArMus 03) much larger cremains than in the aforementioned cremations have been observed. Furthermore, the colour is mostly greyish, indicating a lower temperature of the pyre approximately between 500 and 650 °C[51]. Sometimes a black core is present, characteristic for primary carbon discolouration. This could be the result of an incomplete cremation[52]. The greyish colouration indicates that not only parts, but the complete corpse underwent a cremation at lower temperatures. Comparing the Roman burials from the South Necropolis with the cremation from grave 03 of the precinct, the differences might indicate a lower social status of the former: The family of the deceased possibly could not afford a better, more complete cremation due to the lack of sufficient fuel.

Regrettably, ancient sources are quite vague about the details of the cremation process. In the Roman world, the *pollinctor* prepared the corpse by washing, embalming, and clothing. The *ustor* was a specialist for the cremation process[53]. He would also have been responsible for the construction of the pyre. According to Vitruvius (2, 9, 15), pyres were built with layers of logs, each layer laid over the previous one at right angles[54]. As Wilhelm Kierdorf has pointed out, »in shape it resembled a square altar (Serv. Aen. 6, 177; therefore poetically referred to

42 By Julia Hochholzer (formerly Munich, now Kiel).
43 Großkopf 2004, 25 fig. 2; de Becdelievre et al. 2015, 222 fig. A2.
44 See Rösing 1977, 53–80; Wahl 1982; Grosskopf 2004; McKinley 2013, 147–172; de Becdelievre et al. 2015, 225.
45 See W.-R. Teegen in: Propstmeier et al. 2017, 238–240.
46 See Pirson et al. 2012, 256 f.; W.-R. Teegen in: Pirson et al. 2014, 152–155; Teegen 2017.
47 Cf. Noy 2000.
48 W.-R. Teegen in: Pirson et al. 2013, 138–140.
49 Wahl 1982, 21 tab. 1.
50 See the contribution by W.-R. Teegen in this volume.
51 Wahl 1982, 21 tab. 1.
52 Grosskopf 2004, 113–116 (with references).
53 Noy 2000, 187.
54 After Noy 2000, 187.

as *ara*: Ov. Tr. 3, 13, 21)«[55]. Ovid mentions several times such a *rogus structus*[56]. A lost text by Varro on the rituals held during a cremation burial indicates that the cremation process began at dawn and should be completed before nightfall[57]. This means that the pyre was burning for approximately twelve hours. From an anthropological point of view, Jacqueline I. McKinley assumes at least seven to eight hours[58]. There should have been also time to collect the cremains and the cremated goods from the rest of the pyre, the so-called *ossilegium*; this was done generally by family members[59]. Sometimes a heavy downpour could have terminated the cremation process and have led to a »half burnt corpse«[60]. Plutarch (Sull. 38) reported for the cremation of Sulla in 78 BC that, luckily, the rain began only when the pyre was out and his cremation was completed. However, it remains open to discussion if the variety attested by the Roman cremations from Pergamon is due to socio-economic or cultural differences, or if coincidences – caused for instance by the weather – might have played a role. Further studies of a larger sample of cremations hopefully will shed more light on this aspect of ancient funerary culture. (W.-R. T.)

Abstract

For the first time in the archaeological exploration of Pergamon, a burial precinct dating back to the Hellenistic period and oriented towards an arterial road was excavated in 2020 on the northern slope of the city hill. This important finding is a substantial enrichment of our knowledge of the funerary culture of the upper and middle strata of Pergamenian society. The precinct consists of two circular buildings and a terrace in between them, which is formed by three cist- and pit-graves containing cremations. They can be dated through finds and ^{14}C-AMS from between the 3rd/2nd century BC and the 1st century AD, thereby attesting to the continuous use and reuse of a burial precinct over the centuries. The meticulous excavation yielded detailed information about burial practices and post-burial activities. An artistically refined golden earring from a disturbed burial shows that luxurious funerary ensembles were not limited to the exceptional tumuli burials at Hellenistic Pergamon.

Keywords: Pergamon, burial terrace, cremation, grave inventory vessels, zoomorphic earring

Illustration Credits

Fig. 1 DAI Pergamongrabung (L. Geissler – A. Tuğlu – E. Ekşili – İ. Şahin)
Figs. 2. 5 DAI Pergamongrabung (B. Korkut)
Fig. 3 DAI Pergamongrabung (İ. Yeneroğlu – İ. Şahin)
Figs. 4. 6 DAI Pergamongrabung (J. Krasel)
Fig. 7. 8 DAI Pergamongrabung (P. Michalski – J. Krasel – N. Neuenfeld)
Fig. 9 DAI Pergamongrabung (M. Karagül)
Fig. 10 Conze 1884, pl. 7

55 DNP III (1997) 1047 s. v. Rogus (W. Kierdorf) <http://dx.doi.org/10.1163/1574-9347_dnp_e1023910>.
56 Ov. trist. 1, 3, 98; 3, 13, 21; 4, 10, 86; Pont. 3, 2, 32 (after Noy 2000, 194 n. 17).
57 Noy 2000, 187.
58 McKinley 2013, 160.
59 DNP III (1997) 590–592 s. v. Bestattung/Burial. D. Italy and Rome (W. Kierdorf) <http://dx.doi.org/10.1163/1574-9347_bnp_e215970>.
60 Noy 2000, 188.