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CHRYSANTHOS KANELLOPOULOS & ELENA PARTIDA

The Temple of Zeus at Lebadea

The architecture and the semantics of a colossus

In memory of Jim Coulton

Abstract

The Temple of Zeus Basileus at Lebadea rests almost unknown. Its physical remains and date (not systematically explored so far) pose a riddle, as regards not only the circumstances which entailed its presumed incompletion but also the historic context in which the commencement of construction can be embedded. The dimensions of the krepis alone render this edifice highly interesting in the history of temple-building. The *in situ* preserved architectural elements suggest that here was begun the erection of what was at the time the largest peristasis in Mainland Greece. The temple stylobate measures 200 feet/podes in length, with a lower column diameter equal to just over two metres, and the longest interaxial spacings and corresponding architraves of its time. By increasing the length and height of the structure, the architects achieved its qualification as colossal. This qualification is revealed from the unique-for-the-Classical-period length of 14 columns along the peristasis, with visible euthynteria and hypeuthynteria courses. As shown in this paper, this colossal structure abided by the rules of Doric design. Ascribing the unfinished state of the temple probably to financial shortcoming and/or military adventures, Pausanias did comment on its ambitious, gigantic size. The level of construction eventually reached is another focal point of our investigation. The study of the Temple of Zeus Basileus brings out the multifaceted notion of the term "monumentality", tightly related to visual impact. One of the aims of its commissioners would have been to establish a landmark on the summit where Zeus was probably co-worshipped with Trophonios, the Boeotian hero-prophet. Since the temple in question, as we propose, most probably commemorated both a grandiose military victory in the 3rd century BC and the contemporary political situation, its imposing volume, along with the aesthetic effect of bichromy, were meant to perpetuate the overtone of these events within the ambience of the sacred Lebadea. Another facet of monumentality involves the respective building programme, and it derives from epigraphical sources, namely a contract specifying construction details, with particular instructions already at the orthostate level, denoting that accuracy in execution safeguarded the high quality of ancient Greek architecture.*

Keywords: Doric design, bichromy, 3rd century BC, Boeotian League, Gauls' invasion, federal temple, monumentality, Lebadea pantheon

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Introduction

The large Greek Temple of Zeus Basileus on the east end of the summit of Profitis Elias hill (alt. 397 m) dominates the town of Lebadea (*Fig. 1*). The monument, which until this present project had remained unexplored, is widely but indirectly known from epigraphic evidence, namely fragments of a building contract;[1] so far, examination of the contract has not evaluated and taken into account features of the construction. A study of the *in situ* remains is for the first time attempted below, assessing at the same time the historic, political and

* We wish to thank Alexandra Harami and the Ephorate of Antiquities of Boeotia, the National Archaeological Museum at Athens, Dimitris Tsalkanis, and, last but not least, the anonymous donor who made this project feasible. Special thanks go to Monica Livadiotti, Giorgio Rocco, Jari Pakkanen, and the anonymous reviewers for kindly reading and commenting on our manuscript. The postgraduate and graduate students Kyriakos Loulakoudis, Lina Tsatsaroni, Eirini Spyropoulou, Niki Georgakopoulou, Michalia Koufomanoli, and Dimitra Kovani assisted in fieldwork. The equipment of the Department of Archaeology and History of Art in the National and Kapodistrian University of Athens was used during the documentation in June and July 2017 and in May and October 2018. The *in situ* remains were surveyed with a TOPCON GR-3 GPS receiver; maximum deviation is 0.014 m. Terms marked with * are defined in the glossary added in the *Addenda*, together with a map of sites discussed.

[1] Analysed by Choisy 1884, 183; 1896; de Ridder 1896; Bundgaard 1946; Roux 1960; Turner 1994b, 264–361; Pitt 2014; 2016. The dossier compiled by the seven fragments in question lacks coherence; some fragments were immured in later structures, whereas the pertinence of a very interesting fragment (Jannoray 1940–1941, 37–40) to this contract is disputable on the grounds of palaeography.

Fig. 1. The temple digitally superimposed on a photograph of the summit of Profitis Elias hill (possibly the ancient Ὁμολώιον) at Lebadea; view from the east. Image processed by C. Kanellopoulos and E. Partida.

Fig. 2. The remains of the east side of the krepis after the clearance in 1969. View from the south, viewpoint shown in Fig. 9. *From Vallas & Faraklas 1969, fig. 4.*

religious context. Our project brings to the forefront the architecture of the temple, matters of design, construction technology and the overall layout, in relation to the cultic environment and the long-lived oracle at Lebadea, as well as the chronology of the temple and the occasion(s) it commemorated. While shedding light upon the nebulous construction history of this gigantic monument, we try to restore its plan and form, to evaluate its rank in Classical Mainland Doric temple-building and, finally, to trace the level of construction reached before the temple was deemed as ἡμίεργος*.

Most of the destruction must have taken place before the 19th century. Of all the scholars (Auguste Choisy, André de Ridder, Jens Bundgaard, William Bell Dinsmoor Sr), who have commented on the contract and the architecture of the temple, only Dinsmoor actually visited the site prior to the damage in the early 1940s and the recovery of the krepis and cella remains in 1967 (see below). It appears that before 1927 the same scholar had been able to see both ends of the cella still standing at orthostate level and to measure its full length. During World War II, the site that strategically overlooked the city of Lebadea (*Fig. 1*) was shelled successively by Axis forces and then by the western Allies; its destroyed blocks

Fig. 3. Aerial view of the temple. June 2018. In red, the area shown in Fig. 12. *Photograph by D. Kovani.*

were subsequently reused for the construction of bunkers.[2] Georges Roux's suggestion for a cross-wall with three doors and six orthostates predates the recovery of the cella remains, in 1967, and it results in an impossibly wide cella.

Although the remains of the monument were always visible, a systematic excavation has never been conducted. In a brief report in 1967, scholars who sought to discover the site of the oracle remarked that the chapel of Profitis Ilias was built on the foundations of an ancient temple.[3] Focusing on a pit (diam. 3 m), which they construe as the man-made entrance to an underground chamber, they identify this as the oracle of Trophonios. With regard to the already visible cella foundations and remains of the krepis, they seem to embrace the semicircular end proposed by Roux in 1960, even though the currently extant physical remains do not sustain such a ground plan. Particularly interesting are the thick layers of stone chips amassed upon the krepis (*Fig. 2*),[4] apparently from posterior looting activities. Cleaning operations followed in 2008.[5] The current assessment of the temple's architecture is based on the extant in situ finds and scattered blocks. An investigation of the interior of the cella is scheduled during a next phase of our research.

The temple lies on the east end of the summit, overlooking the plain of Orchomenos and the west end of Kopais Lake. Overall plan dimensions are 67.20 x 28.91 m. The longitudinal axis is 27 degrees north of the true east. This aims 2 degrees south of the local sunrise above the skyline of the Makiston mountain (Kandili) of Euboea, during the summer solstice (19–23 June, our date).[6]

[2] Vallas & Faraklas 1969, 230.
[3] Faraklas & Symeonoglou 1967.
[4] Vallas & Faraklas 1969, fig. 4.
[5] Gadolou 2008.
[6] We shall elaborate on orientation during a next stage of our research, focused on the temple interior.

Fig. 4. General view of the temple from the west, looking along its longitudinal axis. Photograph by C. Kanellopoulos.

The architecture

CONSTRUCTION MATERIAL

At present, the remains of the temple survive to the level of the fourth step of the krepis, with the characteristic, elevated, rear part (*Figs. 4, 5, 6*, A in *Fig. 7*);[7] these, along with a column drum, approximately 475 blocks, mainly from the walls of the cella, and a few large fragments of the superstructure were discovered under a thick layer of stone chips, apparently the result of subsequent looting activities on the site.[8] The following are noted with regard to the materials used in the lowermost parts and the superstructure of the temple. The foundations, together with the backers of the krepis steps and the entire peristasis, are built of the soft, yellowish sedimentary stone, commonly known as poros stone. This material is described in the building account ("...ὑποβατήρας ...ἐκ τριῶν πώρων...").[9] The particular element ("ὑποβατήρ") has been construed[10] as a socle or footing for the free-standing "epigraphic wall", a parapet of contiguous inscribed slabs fastened by clamps poured in lead and displaying in public the specifications for the construction of the temple. The wall would be surmounted by a coping course. This single reference to poros stone in the extant part of the contract explains why scholars thus far tended to exempt any poros fragment[11] as irrelevant to the temple, assuming that only blue-grey local limestone was employed. The local hard grey limestone ("πέτρα σκληρὰ Λεβαδειακή"*[12]) is used for the krepis steps, ramp, stylobate, grid blocks, pavers, orthostates,[13] the masonry of the cella and, most probably, the toichobate course (*Figs. 7, 8*). It seems that the entire poros foundation of the peristasis and cella was sealed under the dense grey limestone of the krepis slabs and pavers; the latter has low water absorption, thus insulating the poros columns from rising moisture from the soil.[14] The variation of materials between cella walls and peristasis is extremely rare for a peripteral temple, yet not unique.[15]

[7] The fourth step of the krepis is erroneously described by Hansen (2016, 63, fig. 5) as euthynteria and hypeuthynteria of the temple. This elevated part of the fourth step is, by oversight, identified as orthostate course by Faraklas & Symeonoglou 1967, 244–245.

[8] Vallas & Faraklas 1969, 231, fig. 4.

[9] *IG* VII 3073, line 73 suggesting a footing of three poros blocks.

[10] Turner 1994a, 20. Several lines of the text were devoted to giving precise instructions for the display of the stelae—but not a hint at *where* these would be set up.

[11] Tentatively ascribed to some other (but otherwise unknown) temple; a predecessor temple is hinted at (Vallas & Faraklas 1969, 231 n. 1; Turner 1996, 105). A column capital retrieved in 1915 was thought to have originated from the Temple of Zeus (Pappadakis 1915, 42) but subsequently ruled out due to (a) the capital's material, i.e. poros stone and (b) the doubt that the temple ever reached such a stage/level: Pitt 2014, 374 n. 7. We are currently seeking the fragment in the depots of the competent Ephorate, to ascertain whether it belongs to the temple.

[12] *IG* VII 3073, line 51.

[13] The latter are not located yet; however the account *IG* VII 3073, lines 48–49, clearly specifies orthostates made of "hard stone from Lebadea".

[14] Density is 2,700 kg per cubic metre. Laskaridis *et al.* 2015, 115.

[15] The pseudodipteral Temple of Messos has, similarly, cella walls made of reddish stone with a peristasis built of white volcanic rock (Kourtzellis 2019, 172). In hieratic edifices of the 3rd century BC at Dodona conglomerate was used in parallel with sandstone and limestone (Katsik-

Fig. 5. The north-west corner of the krepis, as seen from the west. Viewpoint shown in Fig. 9. *Photograph by C. Kanellopoulos.*

Fig. 6. The trace of weathering of the toichobate on the extant foundation of the cella. View from the east, viewpoint shown on Fig. 9. *Photograph by C. Kanellopoulos.*

The combination of stone types occured since the 380s BC, first noted in the Temple of Apollo at Delphi. Here it is estimated[16] that the krepis, grid-blocks, floor slabs, toichobate and orthostates were made of limestone, forming a blue-grey platform, whereas the current wall-blocks and the columns

oudis 2019, 34). The inner face of the walls of the Temple of the Great Gods on Samothrace, also of the 3rd century BC, feature courses of Thasos marble alternating with poros ones; supposedly the contrast was dissipated/mitigated via the application of coloured stucco (Roux 1981, 13).

[16] Amandry & Hansen 2010, 174–180.

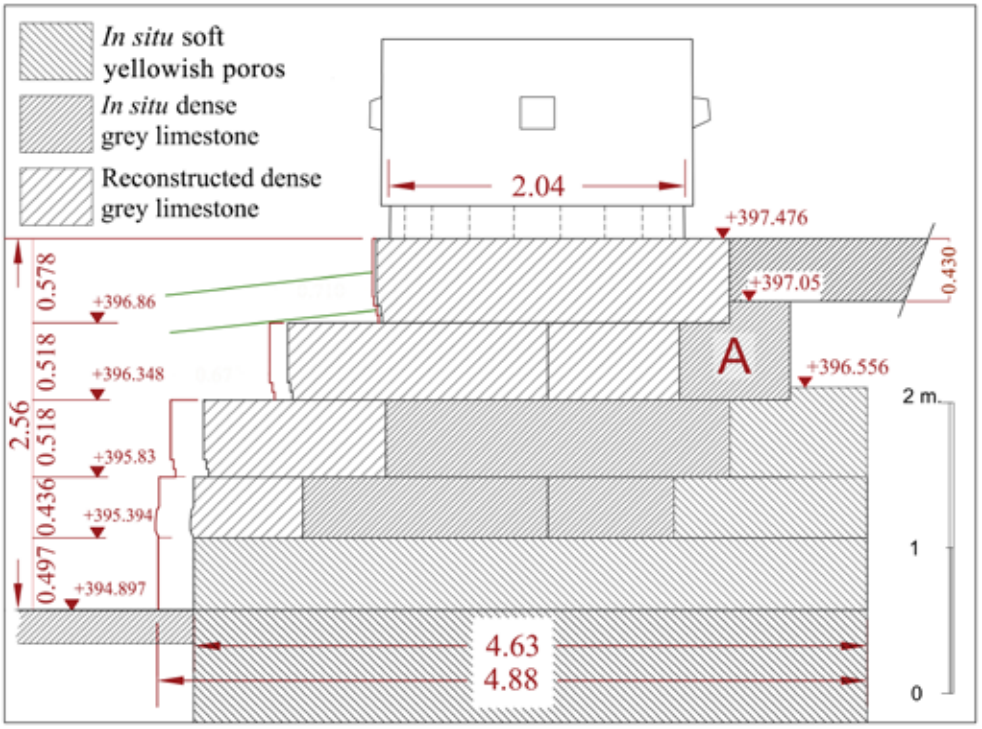

Fig. 7. Reconstructed section of the krepis; in black across the east side; in red through the south side of the krepis. Illustration by C. Kanellopoulos.

were of yellowish poros.[17] A lesbian moulding of limestone at the toichobate level corresponded to the cella wall-crown featuring the same motif upside down. These two zones of different material offered plasticity and articulation to the wall surface. The entablature (architrave, frieze, cornice) was of poros, whereas the simas and pediments were of Pentelic marble. Judging from the wall composition, the combination of different stone types was a deliberate choice; in parallel, they exploited available poros blocks from the (almost equal in size) predecessor temple. In the case of the Temple of Zeus at Lebadea, its huge size prohibits any re-exploitation of available poros blocks; instead, it points in the direction of a planned scheme of bichromy (*Fig. 8*).

The treasury of the Thebans at Delphi[18] was constructed after the Battle of Leuctra (371 BC) entirely of blue-grey limestone. The treasury's material is not referred to in the paper on "grey marble from Lebadea" employed in the Roman imperial installations at Delphi.[19] In the same study, however, the building material of the Temple of Zeus is identified as grey marble, opposing the stone's description as granite elsewhere.[20] In texture, quality and colour, the fine dark grey limestone used for the Theban treasury (quarried locally in the area of Delphi and used also in the 4th-century BC temples of Apollo and Athena Pronaia) emulates the blue-grey stone of Zeus' temple, described in the building contract as "πέτρα σκληρά Λεβαδειακή" (*IG* VII 3073).

Boeotia was rich in quarries of both poros[21] (in the Tanagra-Asopia region, at Eleutheres, Domvraina at the foot of Mount Helikon) and limestone[22] sometimes difficult to discriminate from marble. The poros used in the Temple of Zeus differs from the off-white stone from Domvraina (south of Thisbe), the poros quarry closest to Lebadea. However, poros could be quarried on-site, on demand, as suggested by the case of the Sanctuary of Artemis on Mavrovouni.[23] The combination of durable blue-grey limestone with ochre-reddish poros in the Temple of Zeus appears to have been a deliberate choice. A careful inspection of the remains prevents us from assuming a shortage in limestone, supplemented with poros. Ample material was at hand; near Lebadea, at Lafysti, a quarry was already operating and had supplied grey marble for the sculpted lion of Chaeroneia. A charting of the material's distribution across different parts of Zeus' temple and the selec-

[17] It is difficult to be accurate about the geographical provenance of poros, unless a petrographic analysis has been carried out. Often the building material was quarried not too far from the worksite.
[18] Partida 2000; 2017a, 239, 242–246.
[19] Déroche *et al.* 1989, 405–407.
[20] Gadolou 1997, 392; 2008, 550.
[21] Ancient quarries of poros have been located in Kokkali, east of the acropolis of Gkrimada (Alevra *et al.* 2014, 258).
[22] Ancient quarries of grey-blue limestone have been located in Gkrimada, south-west of Tanagra, and in Lakka of Lebadea (Alevra *et al.* 2014, 257, 259).
[23] Tomlinson & Fossey 1970.

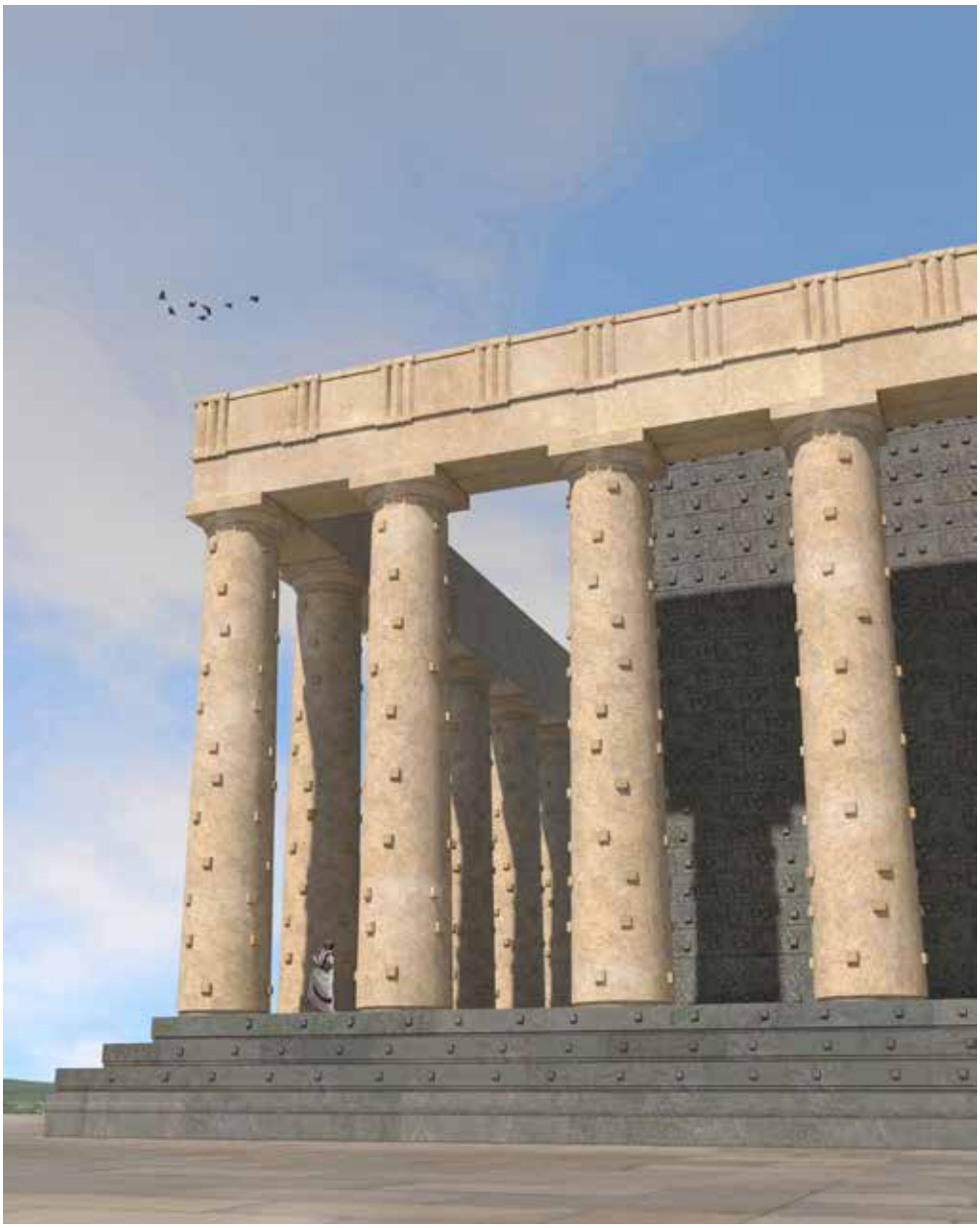

Fig. 8. Three-dimensional (3D) rendering of the south-west corner of the Temple of Zeus. Image by D. Tsalkanis.

tion of limestone for specific registers suggest that the architect had planned in advance the effect of bichromy (discussed below), obviously for the sake of aesthetics.

The Lebadean quarry[24] was an asset for the region, supplying sculptors from the Archaic into the Hellenistic age[25] with high quality limestone and meeting the needs of nearly all Boeotian cities. Sculptural pieces carved out of this material and subsequently reused in the Monastery at Skripou can reasonably be considered to originate from ancient monuments of Orchomenos. Remarkably, however, this stone is not encountered in architectural monuments of Boeotia, with the exception of the Temple of Zeus. Five centuries later, the Lebadean quarry went on to provide stone for the Ionic colonnades of the Roman imperial building programmes at Delphi.[26] This shows that the quarry was still in operation and not yet exhausted. A calculation of blocks in either material

[24] Used in the tholos tomb at Orchomenos. Alevra *et al*. 2014, 259.
[25] For sculpture in-the-round, as well as funerary reliefs.
[26] Concerning the Gymnasium *xystus*, the Roman Agora colonnades, and the peristyle mansion.

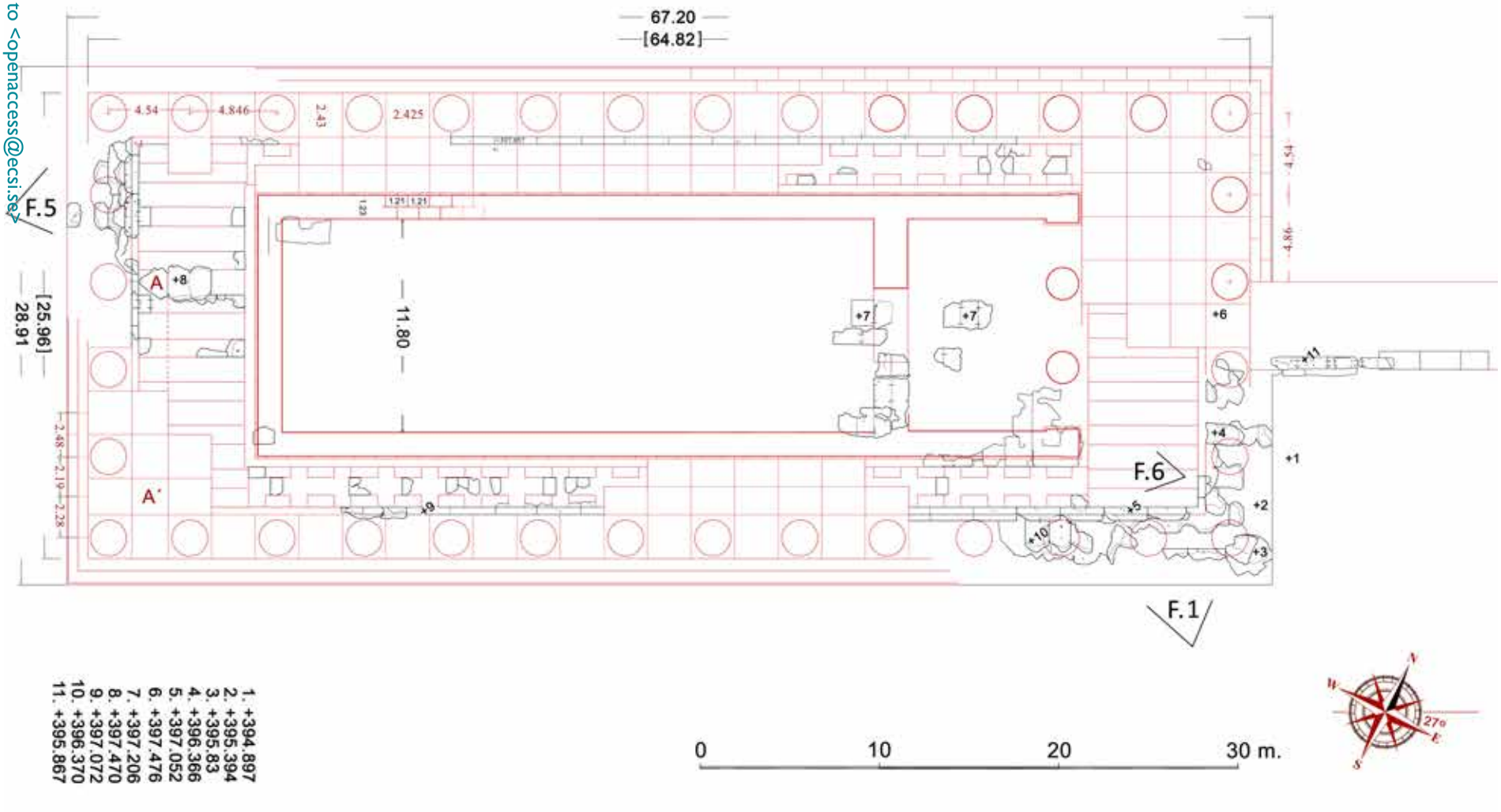

Fig. 9. The ground plan of the Temple of Zeus; in black the extant remains; in red the reconstructed features. F.1, F.5 and F.6 are the viewpoints of Figs. 1, 5, 6. *Illustration by C. Kanellopoulos with L. Tsatsaroni and N. Georgakopoulou.*

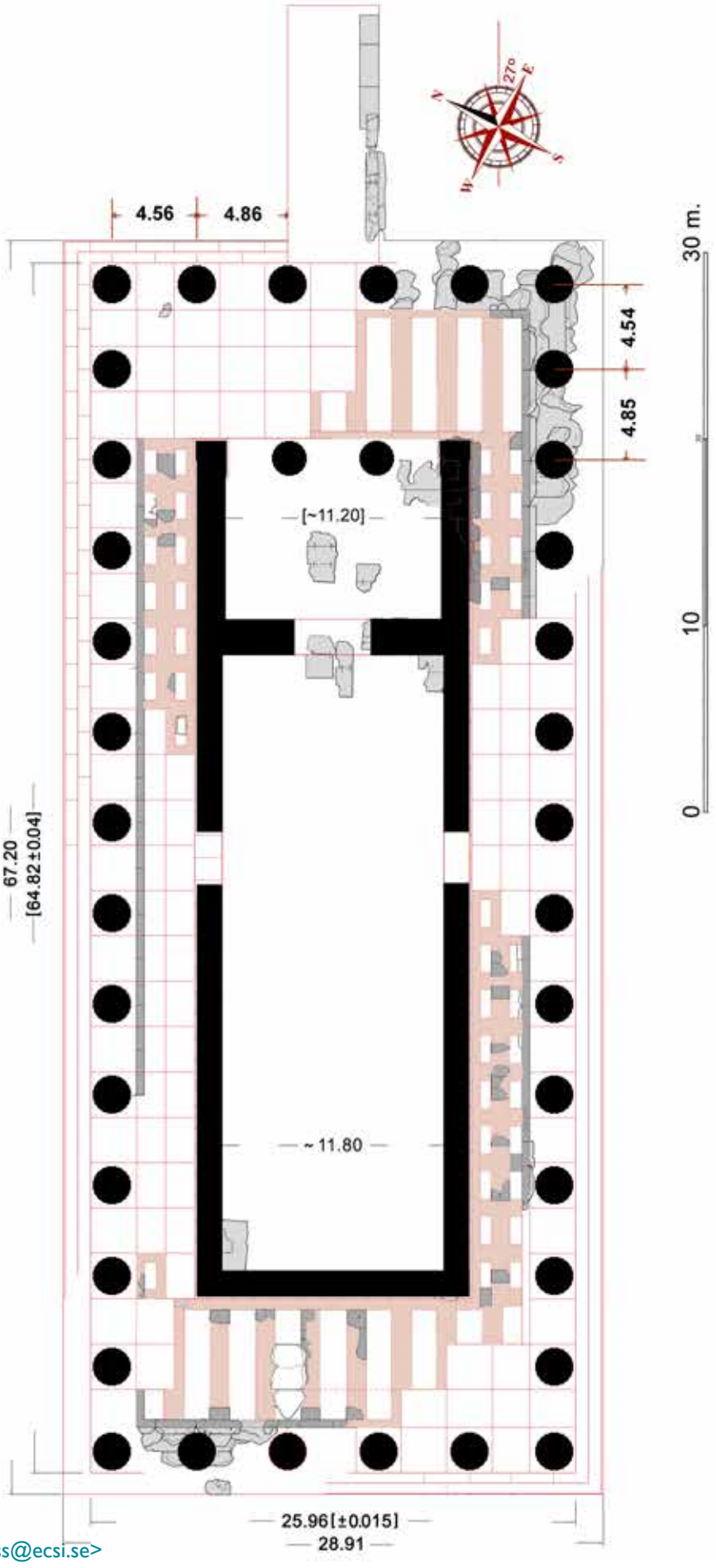

Fig. 10. Reconstructed ground plan of the Temple of Zeus. The location of the lateral doorways is hypothetical. In grey, the extant remains; in pink, the reconstructed layout of the grid blocks. Illustration by C. Kanellopoulos.

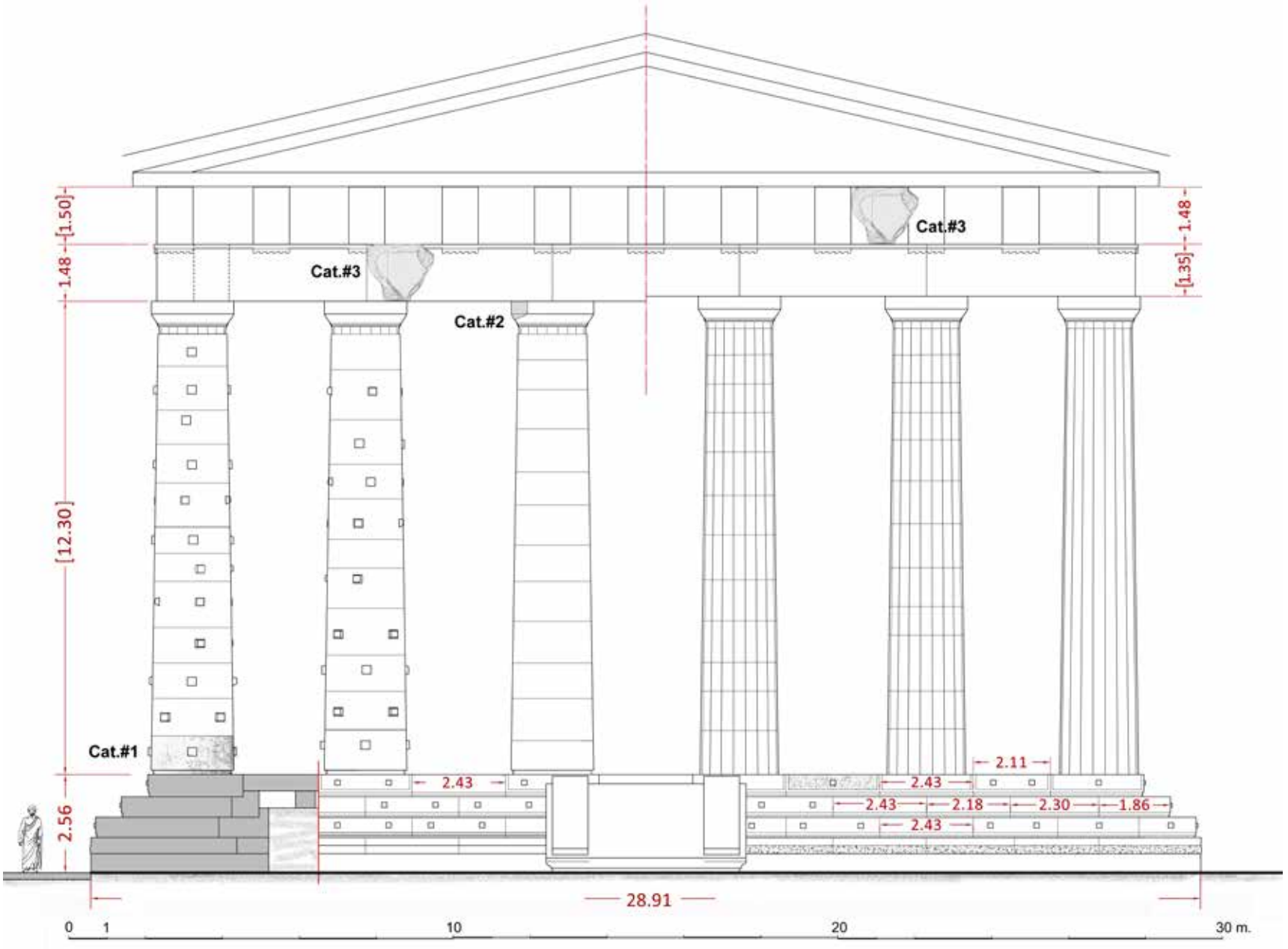

Fig. 11. Reconstructed elevation of the Temple of Zeus incorporating the extant drum, and fragments of the capital and entablature. Reconstructed dimensions in brackets. Illustration by C. Kanellopoulos.

leads us to conclude that the columns and top registers (architraves) of the superstructure were of poros, built upon a sturdy krepis and walls of limestone. Perhaps for the first time, limestone from the Lebadean quarry—until then reserved for sculpture—was used in architecture, to accentuate the luxury and the uniqueness/individuality of the particular edifice.

Some scholarly prejudice against the blending of stones in a religious edifice is hard to escape our attention. The building account's reference to a "dark hard stone" apparently disoriented scholars; hence any find of poros was immediately discounted from having a connection with the temple. Fragments of superstructure elements in poros are briefly reported[27] and roughly estimated to belong to some temple smaller than that of Zeus. The modern church of Profitis Elias is supposed to have been founded on an ancient substructure.[28] However, these remain pure speculations, since the plateau at present is dominated by the tangible remains of only one temple, that of Zeus. Pausanias's reference (9.39.4) to other temples/shrines on the hilltop is too epigrammatic to resolve the situation. Knowledge of whether these poros fragments were stratified or stray amidst the earthwork/debris, would enable us to tell whether the "other temples" were dismantled by the time the colossus was being constructed, or after its abandonment. From the ancient traveller's narrative, it is likely that he did not see the temples, either because little remained of them or because he did not actually visit the summit. However, the discovery and identification—in the course of our expedition—of three poros blocks from the temple's entablature (*Appendix, cat. nos. 3, 4, 8*), fitting the measurements of the elevation, was decisive for our understanding of the architect's intentions and a significant clue as to the level of construction accomplished.

KREPIS, STYLOBATE, AND INTERCOLUMNIATIONS

As well as the krepis and its foundations, the foundations of the cella wall, grid blocks, and two large pavers in the west wing of the peristasis are also preserved *in situ*. The euthynteria course measures 67.20 x 28.91 m. The thickness of the krepis construction varies; width on the east side is 4.63 m, approximately 4.50 m on the west, with a corresponding thickness of 4.88 m on the south (and most probably the north) side, and with an analogous projection of the steps (*Fig. 7*). A reconstruction of the peristasis with six columns along the front and 14 columns on the flanks fits exactly the extant remains of the krepis (*Figs. 9, 10*). The length of the krepis blocks is an average 2.43 m with slightly shorter blocks near the corners. The calculated interaxial column spacing (4.846 m) is twice the average length (2.425 m) of the extant krepis blocks and the corresponding pavers of the peristasis, following a canonical system of perfect alignment of the constituent elements. Each of the stylobate blocks would then be square, measuring 2.425 x 2.43 m in ground plan, with the columns standing near the edge, as in the Temple of Asklepios at Messene.[29] By adding a stylobate slab (measuring 2.43 x 2.43 m) against the indent of the preserved *in situ* fourth step of the krepis (A in *Fig. 7*), the stylobate length equals 64.82 m. The dimensions of the stylobate rectangle would then be 25.96 x 64.82 m (± 0.015 x ± 0.04 m respectively); this calculation takes into account a uniform normal interaxial spacing of 4.846 m for the long sides, 4.86 m for the short sides, and a reasonable distance of 0.10–0.12 m between the column shaft and the edge of the stylobate, for the short and the long sides, respectively (*Fig. 7*). The corner interaxial spacing of 4.54 m is calculated on the basis of the dimensions of the *in situ* paver on the west side of the peristasis (A and A' in *Fig. 9*); this paver is 2.11 m long (*Fig. 11*).

The stylobate dimensions equal exactly 80 and 200 feet of 0.324 m (*Fig. 9*).[30] Furthermore, the normal and the corner interaxial column spacings measure 15 and 14 same foot-units respectively.[31] The discovery of the foot-unit employed in the temple will further contribute to understanding the dimensions of all the elements described in the building contract (*IG* VII 3073). In the latter, the dimensions of all blocks are thoroughly specified in feet and divisions of palms and dactyls; however, the measurement unit has remained, so far, unknown.

[27] Vallas & Faraklas 1969, 231 n. 1; Pitt 2014, 374.

[28] Allegedly the foundations of an ancient temple: Faraklas & Symeonoglou 1967, 244–245. Bonnechere (2003, 15–16) mentions a smaller structure, noted by Lolling but "disappeared" today; cf. Papahatzis 1981, 251 on a possible predecessor temple.

[29] Sioumpara 2011, pl. 15.

[30] Two hundred Doric feet of 0.327 m each measure 65.40 m, a dimension that differs considerably from the reconstructed lengths of the stylobate and the second step of the krepis (64.82 m and 65.85–65.96 m respectively). For the employment of a foot-unit 0.324 m long in the Erechtheion and Philo's Arsenal, see Pakkanen 2013, 20, 22, 67–71; 2002; 2006–2007, 119. "Hecht (1986) advocates a unit of 0.3239 m, appreciably shorter than the usually accepted value of the Doric foot" (Wilson Jones 2000, 74). Although a foot unit of 0.316 m. has been discovered in the temple at Stratos (*c.* 300 BC), the stylobate length equals 32.44 m (Pakkanen 2004, 113, 120–121). Likewise, in the temple at Ilion (on its date in *c.* 300 or 250–200 BC see Webb 1996, 47; Wescoat 2012, 203) the corresponding length is 32.39 m (Sioumpara 2010, 286–289), namely a hundred feet of 0.324 m.

[31] Dinsmoor (1950, 268) reconstructs a stylobate that should be at least 27.432 m wide and 64.008 m long and upon it a 6 x 13 column peristasis layout with an interaxial spacing of 5.216 m. Quite interestingly, had all 13 interaxial column spacings been the same (or the added length of 27 stylobate slabs, each 2.425 m long), then the length of the stylobate would have measured 65.475 m or 200 standard Doric feet of 0.327(35) m. Allowing for shorter corner intercolumnar spaces, this length was reduced to 64.82 ± 0.04 m, which is the reading actually shown when we measure the temple's stylobate. On the evidence of the Salamis relief, the Doric foot has been determined to between 0.327 m and 0.3275 m, an average of 0.32725 m (Wilson Jones 2000, 79–90; Bauer 1977).

Fig. 12. Aerial view of the grid blocks and in situ *pavers on the west side of the peristasis. See* Fig. 3 *for overview. Photograph by D. Kovani.*

The krepis is perfectly horizontal.[32] During our survey, levels on 25 points taken on the fourth step of the krepis along the north and the south side indicate a difference of altitude by only 0.02 m. During the 4th and 3rd centuries BC the rise of the curvature is between 1:400 and 1:825 the length of the stylobate;[33] in the Temple of Zeus this would have resulted in a rise between 0.08 m and 0.16 m along the long wings of the peristasis. Bundgaard argues that the wooden cubes ("κύβους ...ξύλων ξηρῶν κατασκευ[ασάμενος] ξύλων ξηρῶν ἀγριελαΐνων καὶ ἀποδείξας ὀρθὰ καὶ σύμ[μικτα") in *IG* VII 3073, lines 187–188, are wedges with different heights, similar to Vitruvius's "*scamilli impares*", that effectuate the curvature of the pavers;[34] according to this hypothesis, the floor must have been slightly convex. Further difficulty is posed by the brevity of the inscribed text, as usual in building accounts. Critical in deciphering the inscription is the lack of a curvature, which we observed/recorded in the physical remains of the temple. In our opinion, this concluding part of the text refers to neither upright cubes (by definition, cubes have perfectly equal sides) nor σύμμιλτους blocks, marked to facilitate the supposed curvature (which, in fact, was not implemented). Instead, we consider this to be an overall remark on the accurate execution of construction, as a whole. Moreover, by filling the lacuna with the word σύμπηκτα, rather than σύμμικτα, as proposed by Bundgaard, or σύμμιλτα, as suggested by Choisy (following an earlier occurrence of this term in the same inscription), the text makes a lot more sense. The term σύμπηκτα[35] renders a solid construction or compound. So, the contract reads "cubes of hard olive wood. And (concluding) he (the contractor) should be able to demonstrate (if requested) that (everything) is correct and well-fitted".

Quite remarkably, the courses of the euthynteria and the hypeuthynteria rise above the floor level.[36] The hypeuthynteria sits on large pavers of the sanctuary's plateau, all made of local grey limestone and tightly fitted together, adding considerably to the artificial "landscaping" of the temple[37] (*Fig. 7*). Five fragments of grey limestone, each treated with two undercut indents and drafted margins around a shallow decorative panel, must have belonged to either the face/front of the sty-

[32] Lack of stylobate curvature occurs in other prominent temples, as in the Temple of Apollo at Bassae (Cooper 1996, 151).
[33] Haselberger 1999, 182.
[34] Bundgaard 1946, 42. His text is difficult to follow. Bundgaard's idea of an implemented curvature, along with bibliography on the "*scamilli impares*", can be found in Hansen 2016, 62.
[35] Employed by Herodotos, *Historiae* 4.190.1; cf. A. Gazis, *Λεξικόν Ἑλληνικόν* 1809–1816, and *LSJ* 1940, s.v. συμπήγνυμι/συμπηγνύω.
[36] The reconstructed perspective view of the krepis by Choisy (1884, 244, reproduced in Orlandos 1958, 140, fig. 82 and in Hansen 2016, 60, fig. 2) is entirely and exclusively based on information gleaned from the building contract *IG* VII 3073, before the remains of the temple were revealed; in fact, it is totally erroneous.
[37] As yet, we cannot say if and to what extent the paving stretched beyond the east side. In the pages to follow we offer a possible explanation for its association with the ramp.

lobate, in which case, the other two steps of the krepis would have just a single undercut indent (as in the temples of Epidauros and Tegea and in the Tholos at Delphi) or to any of the three krepis grades (as at Bassae and Stratos).[38] The stylobate course is taller than the other steps of the krepis—as it should be; yet, with the two lowermost krepis steps being perfectly equal in height.[39] It can sensibly be speculated that the front sides of the krepis blocks, same as the column drums and the cella ashlars, were treated with lifting bosses (*Figs. 9, 11*).

GRID BLOCKS AND PAVEMENT

The extant grid blocks reveal the layout of the pavement and the ends of the cella (*Fig. 11*). Each of the grid blocks is between 0.92 and 1.02 m long and an average 0.59 m wide. The location of missing grid blocks is indicated by the anathyroses in the rear of the krepis. Two pavers are *in situ* on the west flank of the peristyle (*Figs. 9, 12*). On the short sides the pavers are typically 2.43 m square whereas on the flanks they are 2.43 x 1.56 m each. Smaller pavers with plan dimensions of 2.43 x 2.11 m and 2.11 x 2.11 m correspond to the contracted corner intercolumnia (A and A' in *Fig. 9*); they are all 0.43 m thick.

RAMP

The ramp on the east side of the temple has a length-to-height gradient of approximately 9:1 (6.34 degrees off horizontal or 11%) and a reconstructed length of at least 15.80 m; it appears that this ramp is the longest of its type due to the fact that it would have to reach a height of five krepis steps.[40] The width (4.86 m) is equal to the width of the central interaxial column spacing, thus corresponding perfectly to the joints of the krepis (*Fig. 11*).[41] The masonry masks a core of natural bedrock that emerges above the sanctuary's floor level. The height of the courses must have corresponded to the height of the krepis steps, in the common manner. Three coping

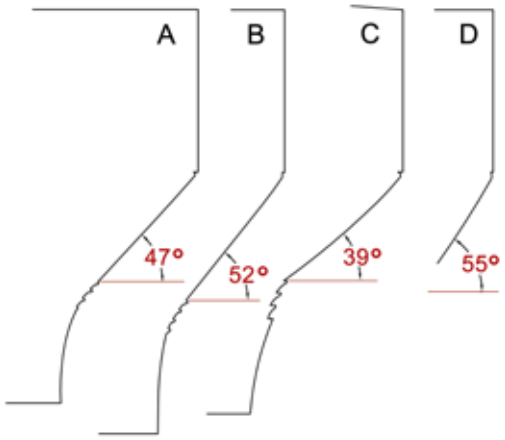

Fig. 13. Profiles of Doric capitals with common abacus height (not to uniform scale). A: Temple of Alea, Tegea; B: Temple of Zeus, Nemea; C: Temple of Zeus, Stratos; D: Temple of Zeus, Lebadea. Illustration by C. Kanellopoulos, modified after Mertens 1984, pl. 31.

blocks, each 1.62 m wide, fit precisely the width of the ramp (*Appendix, cat. no. 7*). The outer face of the coping blocks, on the sides of the ramp, is uniquely moulded. Only the lower, concave, part of the moulding is preserved; thus, it cannot be ascertained whether this is a hawksbeak or a cavetto topped with a large fascia, or the lower part of a cyma reversa, with a convex upper part.[42] The cuttings for clamps on the upper surface of the coping block indicate that it was capped by at least one course. A balustrade, a grille,[43] or a screen of some sort would have stood on the latter.

COLUMNS

The only surviving column drum has square cuttings for the insertion of empolia (mortises) in both the lower and upper surfaces. The roughly worked mantle and the recessed setting band reveal that this is an unfinished bottom drum, most probably of the peristasis (*Appendix, cat. no. 1*).[44] Un-

[38] Østby 2014, 320, fig. 3. In the Temple of Asklepios at Messene (200–190 BC) there are two indents and a decorative panel in each of the uppermost two steps, with only one indent and a panel in the first step. In the same temple the lowermost step is the tallest of all the steps in the krepis (Sioumpara 2011, pl. 19).

[39] During the 4th century the steps of the krepis are organized in a pattern of slightly increasing heights from bottom to top. Only the Temple of Zeus at Nemea and later, in *c.* 150 BC, the peripteral Temple of Asklepios in Cos have two lowermost steps of identical height (Schazmann 1932, pl. 3.4; Østby 2014, 320, fig. 3).

[40] For comparison, the ramp of the enormous Temple of Zeus at Olympia should be approximately 11 m long, as it had to provide access to a three-stepped krepis that is 1.52 m tall (Curtius & Adler 1892, 6).

[41] The same is true in the Temple of Apollo in Delphi (Amandry & Hansen 2010, fig. 18.19), the Temple of Zeus in Nemea, and the Temple of Asklepios in Messene (Sioumpara 2011, pl. 15), but not in Alea.

[42] Normally, the profile of large crowns has the shape of a cyma reversa. This would be comparable to the profiles of the two huge podium crowns in Ialysos (Shoe 1950, 343, figs. 6.1–2).

[43] The ramp rises considerably high above ground, therefore protective grilles could have been required. The only case where metal grilles ensured the pilgrims' safety is the Attalids' terrace at Delphi, also of the 3rd century BC (for a revision of Roux's reconstruction [Roux 1987, plans IV, VI, IX], see Laroche & Jacquemin 1992, 230–234).

[44] In columns made of soft stone, as in Lebadea, but also in the Archaic Olympieion in Athens (Welter 1922, 64–65, pl. 9), in the Archaic Temple of Poseidon in Sounion (Paga & Miles 2016, 673), and in the Temple of Segesta (Mertens 1984, 19, 35, 36, pls. 10.2, 20.1, 27.5), carving of the guide/incipient flutes in the lowermost part of the bottom drum is not necessary (Korres 2017, 162).

usually—yet not uniquely—to Classical Greek architecture, the columns were dowelled with empolia on the stylobate.[45] The lower diameter between arrises can be calculated as 2.03–2.05 m (*Fig. 7*).[46] The overall column height is estimated as equal to at least six lower diameters, or 12.30 m (*Fig. 11*).[47] The column capital of the peristasis, with an abacus length of 2.16 m, has an echinus sloping 55 degrees off the horizontal plane (*Fig. 13, Appendix, cat. no. 2*).

ENTABLATURE

Two large blocks of poros (*Appendix, cat. nos. 3, 4*) can now be identified as elements of the superstructure.[48] Most probably, the fragment *Appendix, cat. no. 3* belongs to the architrave of the peristasis; the latter would have been composed of two enormous beams each 0.90 m thick, set back-to-back. Dowel sockets on the upper surface of the architrave indicate that a portion of the Doric frieze had also been installed. It, therefore, appears that part of the construction had reached the level of the entablature. The frieze must have been approximately 1.50 m tall in order for the metopes to be square, yielding a frieze height:architrave height proportion that is approximately 1:1 (*Fig. 11* left). This ratio appears small, when compared to the corresponding figure in contemporaneous Doric buildings.[49] Had this been the case, the Temple of Zeus at Lebadea, contrary to the trend in contemporaneous buildings, was perhaps given proportionally tall architraves, same as the Portico of Philo, in order for the poros beams to receive the load of the large pediment.[50]

Alternatively, the poros fragment *Appendix, cat. no. 3* belonged to the backers in the frieze of the peristasis. The Temple of Zeus could then have conformed to the light proportions preferred after the middle of the 4th century BC, with the architrave course approximately 1.30–1.35 m tall and a frieze height:architrave height ratio approximating 1.10:1–1.14:1 (*Fig. 11* right), which again is consonant with the date we propose for the erection.

The ashlar block *Appendix, cat. no. 8*, made of yellowish poros, must have belonged to either the superstructure of the peristasis or the pronaos. The width of 0.984 m suggests that this was a backer of either the 1.90 m-wide course of the frieze or the tympanon.

PRONAOS

A clear trace of weathering on the foundations of the cella reveals the position of the toichobate course (*Fig. 6*). Had this course projected approximately 0.12 m from the cella wall, in the common manner, the cella would be in perfect alignment with the axis of the second column from the corner, conforming to the Doric canon.[51]

The lower diameter of each of the pronaos columns can be calculated as 85–93% of the corresponding diameter of the peristasis columns, or 1.78–1.90 m, while the width of each anta as 1.52–1.72 m.[52] This dimension is much larger than the wall thickness (1.23 m) above the orthostate level; quite possibly the walls of the antae were thicker (appr. 1.60 m),

[45] In the Portico of Philo, the Stoa of Echo, and in the temples of Zeus in Nemea and in Stratos, the Temple of Apollo at Claros, but also in the peripteral Temple of Asklepios in Cos, the columns were similarly dowelled on their stylobates (Orlandos 1923, 8; Schazmann 1932, pls. 2, 5; Moretti *et al*. 2016, 588–590).

[46] During the 4th century and regardless of the size of peripteral Doric temples, the interaxial column spacing:lower diameter of column ratio varies between 2.30:1 and 2.50:1, in the Temple of Asklepios at Messene 2.38:1, and in Cos 2.35:1. Given that the interaxial column spacing of the Lebadea temple is 4.86 m, the lower diameter in the Temple of Zeus would, theoretically, be between 1.95 m and 2.11 m. The diameter of 2.04 m places the surface of the column shaft closer to the edge of the stylobate, following the canon. The interaxial column spacing:lower diameter of column ratio would then be 2.38:1. Had the extant column drum belonged to the pronaos, then the peristasis columns would have been thicker, with a lower diameter of 2.20–2.40 m, centred on the square stylobate slabs, as is the norm. Given the known interaxial column spacing, the colonnade would have been unprecedently densely spaced. The interaxial column spacing:lower diameter ratio would then be an extravagant 2.02:1–2.20:1.

[47] On the proportions of Doric columns after the middle of the 4th century BC, see Pakkanen 1998, 73.

[48] By contrast, the orthostates, according to *IG* VII 3073, lines 48–49, were made of the same hard grey limestone with which the krepis and walls are also built. Blocks *Appendix, cat. nos. 3, 4* cannot, therefore, be identified as orthostates.

[49] Though unusual, the ratio well below 1.05:1 for the frieze height and architrave height, respectively, appears sporadically after the middle of the 4th century BC, in the Temple of Demeter at Lepreon (1.02:1) and the Echo Stoa in Olympia (1.01:1).

[50] In the Portico of Philo, the architrave beams would have had to resist bending momentum under the excessive load of the tall pediment in the middle of the façade; for the tympanon in the dodekastyle façade of the Telesterion is at least twice taller than the tympanon in a hexastyle elevation of the same proportions (*Fig. 16D*). The architraves were reinforced accordingly by increasing their height; these are 1.65 m tall, resulting in the frieze height:architrave height ratio (1.62:1.65 = 0.98:1) never seen after the Temple of Zeus in Olympia. During the 4th century BC the corresponding ratio usually varies between 1.05:1–1.08:1 (Argive Heraion and Metroon in Olympia) and 1.14:1–1.20:1 (temple at Delphi and Nikias Monument). For the frieze height:architrave height ratio in 63 Doric buildings after 400 BC, see Kanellopoulos 2019, 111.

[51] On the rule of the cella alignment, Kanellopoulos & Petrakis 2018, 169–174. In the temple at Bassae, which has an anta width of 0.93 m, the projection of the toichobate course is 0.092 m (Cooper 1996, 178, 188). In the Temple of Apollo at Delphi, which has an anta jamb that is 1.25 m wide, the projection of the moulded toichobate is 0.165–0.171 m overall (Amandry & Hansen 2010, 199, fig. 4.6). In the Temple of Athena Alea in Tegea the projection of the toichobate is estimated at 0.103 m (Pakkanen 2013, 104) and 0.15 m (Østby 2014, 327).

[52] Kanellopoulos & Petrakis 2018, 172–174.

as is commonly the case in large temples (*Fig. 10*).[53] Alternatively, the anta walls were as thick as the walls in the rest of the cella (1.23 m) and, therefore, much thinner than the jambs, resulting in considerable anta projection against the inner lateral wall plane (*Fig. 9*).[54] The course of the orthostates, 1.235 m high and approximately 1.35 m wide behind those antae, would consist of two orthostate blocks, each 0.678 m wide.[55]

The combination of materials in the pronaos is puzzling. The anta jambs would be constructed—same as the cella walls—of grey limestone. The two in antis columns of the pronaos are expected to have been made of poros stone, coated with white stucco when finished, as are the peristasis columns. The bicoloured scheme in the pronaos posts would then be unusual. The Ionic Temple of Messos on Lesbos, the only temple that has a cella made of a coloured stone and the peristasis constructed of white stone, offers a different solution in the area of the pronaos. The antae, same as the wall, together with the two column shafts are constructed of red volcanic rock, whereas the column bases, column, and anta capitals are made of white liparite.[56] Following this single parallel, the column shafts in the pronaos of the Temple of Zeus could also have been made of grey limestone, with capitals and entablature constructed of yellowish poros, finished with white stucco.

The fragment *Appendix, cat. no. 4* with a thickness of 0.62 m must have belonged to the architrave course of the pronaos; this course would have been composed of three beams.[57]

CELLA

From the location of the grid blocks of the pavement and, therefore, from the layout and location of the pavers, it is concluded that the front of the pronaos has a precise tangential correlation with the circumference of the third columns on the peristasis flanks, seen after the Temple of Asklepios at Epidauros (*Fig. 9*). The extant grid blocks on the west side clearly suggest that the cella was symmetrically positioned within the peristasis, creating ptera in the front and rear that are exactly two intercolumniations deep (*Figs. 9, 10*). The overall length of the cella can be, therefore, calculated as *c.* 45.85 m[58] and the exterior width as 14.56 m. Had the door wall been aligned across from the fifth columns of the peristasis flanks, and depending on its thickness, the interior of the cella would be approximately 32.40–33.00 m long. This dimension is suspiciously close to 100 Doric feet/podes.

So far, only headers of the ashlar walls of the cella have been recovered and documented; these features are all made of grey limestone and retain rough mantles and bosses on both faces. Their upper surfaces feature the dowel sockets and pry holes for the laying of two stretchers, placed back-to-back, in the course above them (*Appendix, cat. nos. 5, 9*). In the documented headers the width of the wall measures 1.165 m and 1.20 m (*Appendix, cat. no. 5*). Therefore, the wall thickness must have diminished from approximately 1.23 m above the orthostates to 1.16 m in the uppermost parts of the construction, approximately 15 m above the floor level.[59] It appears that only the outer wall surface battered inwards, while the interior surface remained perfectly vertical.

Typical length of the wall ashlars is 1.203–1.23 m, an average of 1.214 m.[60] Twelve such ashlars fit exactly in the west wall of the cella, which is 14.57 m long. The length (1.215 m) of each orthostate must have been half the length of the stylobate slabs and pavers (2.43 m), with two orthostates corresponding to one paver. Indeed, the building contract corroborates this correspondence between elements of the wall and the pavement.[61] The longer orthostates of the corners (each

[53] The phenomenon is seen in the Parthenon. The walls of the cella are 1.165 m thick, while those of the antae are 1.53 m.

[54] Such is the case in the pronaos antae in the temples of Zeus at Stratos (Pakkanen 2004, 116, fig. 10) and of Asklepios at Messene (Sioumpara 2011, pl. 15).

[55] According to inscription *IG* VII 3073, line 64, the width in each of the orthostate blocks would measure two feet/podes and three semidactyls of the same foot-unit (each 0.324 m long), or 0.678 m. The same blocks would be three feet/podes, three palms and one dactyl, or 1.235 m tall (*IG* VII 3073, lines 63–64).

[56] These pronaos columns have, due to oversight, been reconstructed with white liparite shafts and capitals and bases of red stone (Kourtzellis 2019, 172).

[57] It is difficult to attribute block *Appendix, cat. no. 4* to the lintel of the doorframe. The cella walls were constructed of grey limestone.

[58] Dinsmoor 1950 (268, n. 3) describes a cella that is 151 imperial feet [46.075 m] long, "identical with that in [the Temple of Zeus in] Olympia", adding that "the cella length may be measured between the ends of the standing orthostate blocks". These must be pre-war measurements, which do not appear in the less expansive edition (Anderson, Spiers & Dinsmoor 1927). It seems that before the severe destruction during World War II and the subsequent plundering of the temple's material for the construction of bunkers (Vallas & Faraklas 1969, 230), Dinsmoor Sr. had been able to see the full cella length with a portion of the orthostates still standing in place. Nevertheless, our calculated length of the cella is only 15 cm shorter than the respective dimension given by Dinsmoor; the latter may have been roughly approximated to 151 imperial feet or measured hurriedly, or Dinsmoor refers to the overall lenth of the cella, on toichobate level.

[59] The walls in the Temple of Apollo at Delphi are reconstructed with a similar diminution, which, most probably, follows the tapering front in the anta jamb of the pronaos (Amandry & Hansen 2010, 433, 436, fig. 18.1).

[60] This is approximately three feet and three palms; indeed, each of the orthostates that flank the lateral doorways was three feet and three palms long. *IG* VII 3073, lines 57–58.

[61] Unfortunately, the building contract does not specify the length of the orthostates and, therefore, the length of the ashlar blocks; following the inscription, each one of the former should have a length determined by the joints of the euthynteria (i.e. the toichobate). *IG* VII 3073, lines 62–63: "οἱ δε κατὰ τὴν περιφέρειαν καὶ τούς ἄλλους τοίχους τοῦ σηκοῦ], κατὰ λόγον μεσολαβείτω [κ]α[θώς] πὰν[τας τούς ὑποκειμέν]ους τῆς εὐθυντηρίας" ("in the periphery/circumference and the other cella walls, each joint ought to be centred above the long axis of the subjacent block of the euthynteria"). In the well-documented Temple of Apollo at Delphi and in the Temple of

Fig. 14. Clamp sockets a. from the krepis second step; b. from a block in the depot; c. from the ramp of the Temple of Zeus. Photographs by C. Kanellopoulos.

four feet long, or 1.296 m) feature the common orthostate projection against the wall above them.[62]

The stretchers must have been an average 1.21 m long, 0.65 m tall, and approximately 0.58 m wide (each approximately 1.2 metric tons in weight). So far, none of them has been located on the site. By contrast, only headers that weigh twice as much and were hard to split and transport during subsequent looting activities are extant in the depot.

Each of the two orthostates placed back-to-back would have been indeed two feet and three semidactyls wide (or 0.678 m, *IG* VII 3073 line 64), a total thickness of approximately 1.35 m for the course. Upon them stood the wall with a thickness of 1.23–1.25 m, as described above. The building account describes six orthostates flanking the "μέσον θύρετρον"* and the "πλευριαῖα θύρετρα"*. Most probably, the cella of the Temple of Zeus had two lateral doorways (*Figs. 9, 10*); though unusual, this arrangement finds a single parallel in the neighbouring Temple of Apollo at Delphi.[63] Those "ὀρθοστάται πρὸς τὰ παραστάματα"* are either equal in length to the ashlars (1.21 m), or longer than the latter (1.35 m and 1.944 m).[64]

Furthermore, the building account refers to a total of 146 regular orthostate blocks of the cella. Indeed, the overall length of the cella walls minus the six orthostates flanking the three doorways, minus a 4.50–4.86 m wide central opening, minus two openings of appr. 2.25 m for each of the lateral doorways, minus six doorjambs with a reasonable overall length of 3.40 m, is 177.00–177.40 m; this length can accommodate the 146 regular orthostates of the inscription, placed back-to-back, each orthostate 1.213–1.215 m long, or the typical length of the extant wall ashlar blocks, and therefore, of the orthostates themselves, as explained above.

The corner block (*Appendix, cat. no. 6, Fig. 22* top) of the cella could have belonged to a rear corner of the wall. Alternatively, this element could have been part of the junction between either lateral wall and the screen wall of the door (*Appendix, cat. no. 6, Fig. 22* bottom). Had a block with the typical length of 1.21 m been placed next to the corner block *Appendix, cat. no. 6*, then the door wall would have measured approximately 1.80 m in width; it would therefore, be thicker than all other walls of the cella, as is normally the case.[65]

CLAMPS AND DOWELS

All blocks are thoroughly treated with anathyrosis bands, which are typically 0.17 m wide, and clamped together in all areas of the construction; this includes the grid blocks. A number of clamp types have been documented. The majority of the krepis and wall blocks are fastened with Π-shaped clamps that are typically 0.30 m long (*Fig. 14a*). A clamp type which is a combination of a Π and an H iron feature occurs in blocks lying in the area of the ramp and in three more blocks in the depot west of the temple. The length of each part is 0.38 m (*Fig. 14c*). The use of a T-shaped cutting is visible at the bottom surface of block *Appendix, cat. no. 8*, made of poros. This is identified as a device of the Hellenistic period employed to

Asklepios at Messene, each of the toichobate blocks and the orthostates is indeed as long as the corresponding paver/stylobate slab.

[62] "...οι μεν μέγιστοι τε[τράπεδοι κατὰ τᾶς γωνία]ς", *IG* VII 3073, lines 60–61 ("the largest ones, measuring four feet, at the corners").

[63] Amandry & Hansen 2010, fig. 18.19. Roux's (1960, 179–180, fig. 1) reconstruction of a trithyron in the door wall of the cella in the Temple of Zeus is impossible. Following the inscription, the added lengths of the six orthostates flanking the three doorways (two orthostates with a length of four feet and five semidactyls, or 1.35 m each + two orthostates with a length of six feet, or 1.944 m each + two orthostates of three feet and three palms, or 1.21 m each) amount to 9.008 m. This dimension is 2.80 m short of the width of the door wall (11.80 m) and allows space for only one opening. When adding the six doorjambs of the three hypothetical openings, there would practically be no space left for door(s).

[64] Similarly, the orthostates against the doorframes of the Temple of Apollo at Delphi were longer or shorter than the typical ashlar length, so they could be accommodated in the space adjacent to the door jambs (Amandry & Hansen 2010, fig. 18.19).

[65] Orlandos 1922–1925, 61. It is rather improbable that the longer thrust joint of block *Appendix, cat. no. 6* belonged to a hypothetically thicker anta-wall. The length of this joint is 1.798 m and would have resulted in an anta appr. 1.90 m wide. As demonstrated above, the columns of the pronaos would have been slightly thinner than those of the peristasis, with a maximum lower diameter of 1.90 m; accordingly, the antae would have been slightly narrower than the pronaos columns, as is normally the case, with a maximum width of 1.72 m.

lay the blocks in place.[66] Additionally, the enigmatic socket for the insertion of a dovetail clamp can be seen in a block made of grey limestone, found in the depot (*Fig. 14b*). This cutting is too long (0.15 m) to have been used for the insertion of a patch. Quite interestingly, the building account of the temple (*IG* VII 3073, line 172) describes axe-shaped ties or clamps (" ... καὶ τῶν δεμάτων καὶ τῶν πελεκίνων ... ") in the lowermost parts of the construction.

PLAN

The ratio of the overall length:overall width—at euthynteria level—(or 67.20:28.91) equals 2.3245:1; this is 0.16 m short of a ratio of round numbers 7:3 (2.33:1). In every peripteral temple with a length of 14 columns the proportions of the stylobate plan reach the ratio of numbers 2:5.[67] In the Temple of Lebadea the proportions of the same rectangle are exactly equal to 2:5. The carefully laid out plan is further demonstrated by the stylobate course, which is 200 foot units long, together with a cella that presents perfect Doric correspondence relative to the peristasis.[68]

The 14 columns on the long sides denote an archaism, which at present remains puzzling. Since the early 4th century BC (Temple of Asklepios at Epidauros) the Doric peripteral temples were eleven or twelve columns long, with the exception of those built on top of the extant foundations of their elongated Archaic predecessors (Delphi, Tegea).[69] The plan proportions of these 4th-century temples were dictated accordingly by the earlier constructions. It cannot be precluded that the Temple of Zeus also repeats the proportions of an elongated predecessor which would have dominated the site, albeit in a considerably smaller scale.[70]

Nevertheless, the elongated peristasis would offer the advantage of a correspondingly oblong cella, possibly with an impressive interior arrangement. As in the temple at Bassae with its unusually long plan, the latter need not depend on an earlier foundation layout. The lack of opisthodomi in Boeotia (temples of Apollo in Ptoion and Thebes[71]) result in unusually long cella proper; our investigation has not concluded on the arrangement of the interior. As at Bassae, where the lack of curvature, entasis, or columnar inclination in the peristasis was contrasted—and compensated for balance—by an unprecedentedly rich and overly decorated interior, it is quite possible that the temple at Lebadea, too, combined «opposite narratives» in an analogous manner, saving the elaborate and ornate features for the interior. The span of 11.80 m across and over the cella interior could have been bridged either with the usual double colonnade or with the aid of horizontal tie beams.[72]

The use of tie beams, and the taste for gigantic size and exaggeration in general befit the aesthetic principles and the expressiveness imparted by elevations of the Hellenistic period; so do the untrimmed bosses[73] and bicoloured scheme/bichromy. The latter, effectuated through the combination of different kinds of stone, is in balance with Hellenistic trends, as shown in hieratic edifices on the islands of Cos,[74] Lesbos,[75] Samothrace,[76] and at Dodona,[77] with the 4th-century BC Temple of Apollo at Delphi[78] setting a precedent. On the other hand, the keeping of building accounts is attuned to major Classical building programmes. It is possible that the Temple of Lebadea manifests adherence to tradition, a tendency to abide by older prototypes both in terms of design and textually prescribed execution. Boeotia is known to demonstrate conservatism,[79] a slower pace in adopting new trends. Besides the indications of classicism traced in the art of the Hellenistic period,[80] the spirit of conservatism is obvi-

[66] Gruben 2000, fig. 188b by Korres.

[67] For example, in the Temple of Alea the stylobate is 0.38 m shorter than plan proportions of 2:5 (Østby 2014, 321). The same ratio recurs in the Temple of Hera Lacinia at Croton, a peripteral edifice with 6 x 14 columns, dated to the second quarter of the 5th century BC (Rocco 2009; 2010) and in the atrium of the Pompeion at Athens (Hoepfner 1976, 117, fig. 146).

[68] Following this norm the width of the cella should equal the sum of three normal interaxial column spacings. Almost negligible declinations appear in a number of peripteral temples after the early 4th century BC. In the Temple of Apollo at Delphi, in the Temple of Hippolytos at Troizen, and in the Temple of Asklepios at Messene the cella is notably wider than the sum of three interaxial spacings (Kanellopoulos & Petrakis 2018).

[69] According to Knell (1983, 226), those elongated temples of the Late Classical period would be surrounded by an aura of sacred past.

[70] According to Orlandos (1915, 107), the unusually long cella of the temple at Ptoion might have replicated an older, hypothetically elongated, temple on the same site.

[71] Scahill explores the possibility that the temple at Thebes lacked an opisthodomus. The hypothesis was presented by him in the Circle for Dialogues on Greek and Roman Architecture at Athens in 2016 and at the Annual Meeting of the Archaeological Institute of America in San Francisco, also in 2016, and has not yet been published.

[72] Tie beams are first known in Macedonia (androns in the Palace of Aigai with an interior span of 16 m) from the middle of the 4th century BC (Winter 2006, 164–165).

[73] Especially for bosses on column drums: Aylward & Carlson 2018, 239.

[74] Combining local travertine or tufa with white marble: Livadiotti 2010.

[75] Kourtzellis 2019.

[76] On the inner wall face of the Hieron: Roux 1981, 13.

[77] Katsikoudis 2019, 34.

[78] Bichromy was supposedly concealed by the application of plaster (see Roux 1979, 216, who claimed the same about the interior of the Hieron at Samothrace: Roux 1981, 13). However, since only the poros elements were stuccoed and the marble simas painted, contrast with the parts in bluish-grey limestone was not concealed.

[79] Deriving perhaps from Boeotia's isolation in the Classical period and her reluctance to assimilate new styles: Fossey 1985, 134–137. Cf. the clearly local origins of Boeotian mythology, showing no influence from Athens (Kühn 2018, 263).

[80] Aravantinos 2010, 318–319.

ous in temple architecture at Mavrovouni, Khostia, Ptoion, and Aulis.[81]

Chronology of the temple, as inferred from the *in situ* remains

With the exception of the capital fragment, almost nothing is left of the superstructure and of the stylistic elements that date a Doric building. Only technological features and aspects of design may help dating the great temple of Lebadea. As regards parallels, 4th-century Doric architecture offers quite a few examples useful for comparison, while only two peripteral Doric temples postdate the year 300 BC, the ones of Asklepios in Messene (200–190 BC) and Cos (*c.* 150 BC).

Considering that the construction of the temple may have lasted decades or centuries, it is possible that a variety of devices were used, following the evolution of technological advances. For example, it has recently been demonstrated that in certain cases (Temple of Apollo at Claros) during the late Hellenistic period and the early Roman Imperial period only the lowermost drums were furnished with lifting/handling bosses, while the other drums of the same shaft were lifted and lowered into position with the aid of lewis devices. Had the Temple of Zeus been built over a period of three to four centuries, then the installation of the only known, bottom, drum with the bosses could be dated even to the late 1st century BC.[82]

The rare type of clamps combining H and Π shapes occurs in the lowermost parts of the temple and, therefore, belongs to the early phases of the construction. H-shaped clamps persist beyond the middle of the 3rd century BC, as evident in monuments at Delphi.[83] Combined with Π-shaped clamps they recur in dedications by the Aetolians and the Pergamenes, and also in the remodelled Chian Altar,[84] defining a peculiarity of the 3rd century BC.

Dovetail clamps, which are abandoned after the 5th century BC, appear sporadically during the 4th century and the Hellenistic period.[85] The device with a T-shaped end seen on the bottom surface of *Appendix, cat. no. 8* is typically Hellenistic, indicating that a part of the superstructure was constructed after the Classical period.

The steep echinus of the column capital is more Hellenistic than Classical, though the small "shoulder" at the top of the slightly curved profile of the echinus echoes Classical attitudes (*Fig. 13, Appendix, cat. no. 2*).[86] These traits are supposed to have been abandoned at the dawn of the 3rd century BC, which opens a new era for the simpler Hellenistic Doric capital. Indeed, the lack of the shoulder part is combined with a perfectly straight echinus in the Temple of Apollo Ptoos,[87] by the end of the 4th century BC. Nevertheless, a tiny shoulder atop a slightly curved echinus is found in the Palaestra of Sikyon and in the Tomb of the Judgement at Lefkadia, both of which date to the early 3rd century BC, suggesting that the type of the Classical capital survives sporadically after 300 BC.[88] It is quite possible that the architect of a large, canonical, Doric temple during the early 3rd century BC would not experiment with new forms; he would avoid the newly appeared, at the time, echinus in the shape of a truncated cone and would seek to connect with the Classical tradition. Such a mentality is consonant with the aforementioned Boeotian adherence to tradition and tendency for conservatism.

The combination of a cella built of grey limestone and contrasting with the white elevation of the porches appears for the first time in the Telesterion at Eleusis. In fact, quite a few traits are common to both Philo's Portico in Eleusis and the Temple of Zeus. These are the identical interaxial column spacings (4.84 vs 4.846 m respectively), the foot-unit of 0.324 m, the proportionally tall architrave, and the rare dowelling of the columns on the stylobate slabs, found in both buildings.

The large moulding on the lateral edges of the ramp is unique to a Doric temple of the Mainland; this type of crown finds parallels after the 3rd century BC[89] and should be attributed to the latest phases of construction. This decorative element, which signifies a unique, unparalleled elaboration of the access to a Doric temple, arouses some thoughts, to be tested in the next phase of our expedition. The moulding served purposes of embellishment; at the same time, it sheltered (as a cornice) the courses below. The pavement in front of the temple façade, adjacent to the ramp, emphasises the tendency for refinement and incites us to think of some gathering of people here, for ritual or other purposes.

[81] Tomlinson & Fossey 1970, 243–252; Fossey 1981, 20–23; 1985, 135.
[82] Aylward & Carlson 2018, 236–238.
[83] For example, in the Pillar of Attalos: Roux 1987, pl. 94c.
[84] Laroche 1991, 107. On the form and density of dowelling devices in the 3rd century BC, a supposed turning-point in construction technology, see Laroche 2015, 23.
[85] See the Gate of Zeus in Thasos, the "Thesauros" in Lebena, which dates before the mosaic floor of the 3rd century BC, the tower of the Hellenistic wall in Veroia, the Palaestra (150–125 BC), and the monument of Mithridates on Delos, as well as the wooden dovetail clamps in the Stoa of Phillip V on Delos (216–192 BC) and, quite possibly, in the Stoa of Attalos at Delphi. The dovetail clamps in the Hellenistic Temple of Asklepios at Lissos were most probably made of lead (Kanellopoulos 2019, 71 with related bibliography).
[86] The same features appear in the capital of the stoa at Oropos, which dates to the last decades of the 4th century BC (Coulton 1968, 158).
[87] Orlandos 1915, 98, fig. 5.
[88] Petsas 1966, 63, fig. 16.
[89] Shoe 1950, 343.

As public documents that concerned the whole community, the building accounts were bound to be set up in public view. The Agora of Lebadea[90] is hardly a candidate venue for their display, since no find so far sustains such a conviction. Instead, we would anticipate the contract to be displayed in proximity to the monument involved, on the summit of Profitis Elias. In a similar manner, at Delphi the respective building accounts were set up on the temple esplanade[91] (with a few near the bouleuterion).

A coping stone above the inscribed slabs is inferred from the text of the Lebadean contract.[92] We imagine something equivalent to the cornice/moulding above the accounts set up in a row at Delphi, which helped articulate the parapet of inscribed slabs, effectuating their arrangement as "θριγκοὶ ἐπὶ στήλαις" (crowning courses on posts).[93] The moulding that crowns the edge of the ramp at Lebadea fits this picture. The ramp (*Figs. 9, 11*), proportional to the temple's gigantic size, is voluminous, with lateral walls that provide extensive usable surface, simulating a huge blank writing-board. The preserved contract fragment (20 cm thick) is of the same blue-grey limestone used for the temple (and the ramp). It is worth exploring whether the sides of the ramp had accommodated the building contract, either engraved directly on the stone blocks or as a veneer/revetment underneath the crowning moulding, at a level where the text was legible (cf. the hymns engraved in the 2nd century BC on orthostates of the Athenian Treasury at Delphi). Votive offerings were riveted on the sides of the monumental ramp of the Asklepieion at Corinth, whereas building accounts at Delphi were arrayed so as to mask the exposed rough stereobate of the Archaic Temple of Apollo.[94]

In search of the historic context

The date of the temple and the occasion it commemorated have so far been elusive. Up to the present day, scholarly attention has been turned to inscriptions pertinent to its construction, namely fragments of the building contract,[95] which alone determined the chronology of the monument. Crucial in the inscribed text was the reference to the *archon*/magistrate Andronikos, whose term in office was initially dated to 175–170 BC; thereby the royal spouses Antiochus Epiphanes and Laodike were speculated to have lavished the funds for the erection of the temple and the whole enterprise was associated with the trend of benefaction, which marked that period.[96] A subsequent study shifted the term of Andronikos to 220 BC without implications for the presumed context of the temple's construction;[97] the interval from *c.* 250 BC to the beginning of the 2nd century BC accommodated several epigraphically attested cases of financial contributions/donations by the elite class to projects of restoration or relocation of sanctuaries.[98] Although Polybios, throughout his work *Ιστορίαι**, offers precious testimonies to the situation in the second half of the 3rd century BC, supplementing the available epigraphic documents, the occasion which triggered the erection of this colossal monument remains unknown.[99]

Interestingly, an inscribed consultation recovered at Ptoion[100] suggests that, by 230 BC, the temple existed there, constructed at least up to a certain level. The final lines of the text ordain the award of a wreath to the person who will curate, provide for, attend to the temple: "ὅστις δέ κα τῶ Διὸς τῶ Βασιλεῖος ἐπιμελειθείει τῶ ναῶ, τὸν στέφανον ὔσετη".[101] Apparently for the sake of consistency with the building contract of 220 BC, Albert Schachter postulated that the temple had not yet been built; as a consequence, he argued that the textually referred-to consecration of the town of Lebadea to Zeus Basileus and Trophonios was a prerequisite for immunity to be in effect, thus facilitating the completion of the temple. A less complicated and more convincing explanation[102] justifies the town's consecration as part of an ἐκεχειρία* during some athletic contest, games, or festival.

The presence of a committee of *ναοποιοί** and the drawing up of a building contract ascribes the Temple of Zeus to the Classical tradition of temple-building, all the more so with the projects of great sanctuaries. For this reason we are oriented to the post-371 BC historic circumstances, when the

[90] For the remains of the civic centre: Threpsiadis 1953–1954.
[91] Partida 2009, 309–310 with bibliography.
[92] Their display was first discussed and compared with equivalent walls of contiguous stelae at Delphi by Jannoray 1944–1945, 91–92. Strangely, this is not mentioned by Turner 1994a.
[93] Jannoray 1944–1945, 75–93. The slabs are thought to have veneered the Ischegaon retaining wall in the ἐπισαμότατος τόπος* in the heart of Apollo's sanctuary.
[94] An idea put forward by Homolle, Bourguet and Courby at the dawn of the 20th century and fully adopted today: Hansen 2009, 130 n. 27, fig. 15.
[95] Choisy 1884; 1896; Bundgaard 1946.
[96] Feyel 1942, 69. Paradoxically, it is not included by Migeotte 1994.
[97] Étienne & Knoepfler 1976, 265–284.
[98] They concern existing sanctuaries (Müller 2010, 238–239). Migeotte (1994, 13–14) remarks that, despite the financial distress in the last decades of the 3rd century BC, Boeotia was generally never short of resources.
[99] For an attempt to place the temple in context: Partida 2015, 34–36. So far, comparatively more emphasis has been placed upon the reasons for its abandonment in an unfinished state, with reference to the League's decay: Gadolou 2008, 554–555. Nafissi (1995) reviews the epigraphic evidence which formed the basis for fixing the construction of the temple at 220 BC and attaches political connotations to the temple, as well as to the interruption of its construction, pertinent to the religious politics of the Boeotian *koinon* and its anti-Spartan spirit.
[100] *IG* VII 4136, discussed by Schachter 1984; 2016, 189, 381–392.
[101] "whosoever has been in charge of the temple of Zeus Basileus, will win the crown" (after Schachter 1984, 382).
[102] Nilsson 1956, 82–83.

Βασίλεια, the Basileia festival, was supposedly established.[103] Amid a series of military conflicts, temple-building would hardly be conceivable or feasible: the Battle of Leuctra was followed by the swan-song of the Theban hegemony at the Battle of Mantineia (362 BC), the decade-long Third Sacred War (356–346 BC, with implications evident on the worksite of the Temple of Apollo at Delphi and its delayed construction), the Battle of Chaeroneia (338 BC), and the destruction of Thebes (335 BC). By the time the town of Thebes was being partly rebuilt by Cassander (316 BC), Antigonos the One-Eyed founded the Nesiotic Koinon (a league of the Aegean islanders), with Delos as its base (314 BC). That Ptolemy, in charge of the Nesiotic League around 308 BC, contributed to the reconstruction of Thebes is no less of a speculation[104] than the involvement of Antiochus Epiphanes in the Boeotian matters. In the absence of written documentation, any association of Antiochus with the commissioning of Zeus' temple remains purely conjectural.

Between 360 and 338 BC the Boeotians launched projects of fortification-building, as far as in Messene and Arcadia.[105] A network of watchtowers to safeguard vulnerable and exposed passage-ways, as well as the frontiers with Attica, is ascribed to Boeotian authorship.[106] The Boeotians were engaged in defensive military architecture up until 280 BC, when repairs to ramparts in Oropos are recorded.[107] Thebes did not recover to a satisfactory degree before 288 BC.[108] Until then, actions taken by Alexander the Great and his successors delineate a period of upheaval.[109]

Polybios asserts that the Boeotians were gradually enfeebled from 245 BC onwards; the historian speaks of καχεξία* in sharp contrast to the εὐεξία* they had enjoyed previously.[110] The period of καχεξία dragged on for 25 years and even longer in some regions of Boeotia. To aspire for a grandiose temple under the circumstances would be paradoxical.

In the 3rd century BC, and conforming to the general tendency for a rekindling of the συμπολιτεῖες*, the Boeotian League re-emerges as a powerful, "extroverted"[111] and coherent federal ἔθνος*, which embraced democratic representation. Indicative of this attitude is the prevalence of ethnic names (Boeotian over e.g. Theban).[112]

Distinct is the term βοιωτάρχες* employed by Pausanias (10.20.3–5) while referring to the captains/officers of the contingents dispatched by Boeotia—as a whole—to fight against the Gauls in 279 BC. In contradiction to other captains' origins from individual cities, the Boeotians and the Aetolians appear as ethnic entities.

Strangely enough, this significant historic event is not proportionately acknowledged in commentaries of the history of Boeotia and even less represented in her architectural history. Following this victory, the Aetolians manifested (at Delphi and Thermon, as well) their contribution to the rescue of the Delphi oracle, although this was the feat of a coalition of Mainland military forces (Paus. 10.20–23; Just. *Epit*. XXIV, 4–8).[113] In fact, the Boeotian contingent with thousands of infantry as well as cavalry under the command of four βοιωτάρχες was quite substantial, if not on the largest scale of all.

THE GAULS' INVASION AND THE BOEOTIAN PREPONDERANCE AMONG ALLIED GREEK FORCES

Little attention has been given to the synthesis of the Mainland troops that fought against the Gauls in 279 BC. More than other authors, such as Diodorus (XII 9) or even Justin, who devotes several paragraphs to narrating the events of 279 BC, Pausanias (10.20.3–5) offers a record much more detailed in this particular aspect. Although the Aetolian regiment was equipped with all categories of warfare units, the Boeotians outnumbered the allies' armies, and had more captains than all other regiments. This justifies why they are mentioned first in Pausanias's account (10.20.3–5).

The breakdown in Pausanias's account is as follows: ten thousand hoplites and five hundred cavalry from Boeotia, under the command of four βοιωτάρχες: Cephissodotos, Thearidas, Diogenes, and Lysander; 500 cavalry from Phocis with infantry amounting to 3,000 soldiers under the Generals Critobulos and Antiochos; 700 infantry from the Locrians of Atalante under Meidias, with no cavalry; 400 hoplites from Megara with Hipponikos in charge; the number of cavalry in the Aetolian contingent is unrecorded but 790 light infantry and more than 7,000 hoplites served under the command of Polyarchos, Polyphron, and Lacrates. Callippos was

[103] Turner 1996, 105; Schachter 1981, 111–124, 240. However, the few available, indirectly relevant, epigraphic texts suggest a date around 300 BC: Knoepfler 2008, 1436–1447.
[104] Reger 1994, 72.
[105] Forts at Siphai and Messene, including the Arcadian Gate, are of Boeotian inspiration and construction: Cooper 1986, 200. The forts at Messene, Mantineia, and Megalopolis were commissioned by Epameinondas: Pope 2016, 263–265. This "spate" of wall- and tower-building throughout Boeotia in the 4th century BC (Bintliff 1999, 23) apparently changed the landscape.
[106] Camp 1991, 195–199; Beck & Ganter 2015, 149–150; Pope 2016, 263–265.
[107] Müller 2010, 237.
[108] Beck & Ganter 2015, 151 with bibliography.
[109] Gullath 1982.
[110] Mendels 1982, 98–99.
[111] Beck & Ganter 2015. On the Boeotians' "extroversion" and contacts with Euboea and the Cyclades, see respectively Knoepfler 2014 and Reger 1994.
[112] Reger 1994.
[113] The story of the Gauls' invasion is narrated at length by Justinus and concisely in the fragments of Diodorus Siculus (XXII, 9); Frazer 2012, 341.

in charge of the Athenian contingent with all the serviceable triremes, 500 cavalry, and 1,000 infantry. Alexander's successors also contributed: Antigonos, the king of Macedonia dispatched 500 mercenaries under Aristodemos; as many again dispatched by Antiochos, the Macedonian king of Asia, with Telesarchos as their officer, a Syrian from the Orontes region.

We would anticipate a celebration analogous to that of the Aetolians by the rest of the allies, except perhaps the Phocians, who were drained by the burdensome fine levied upon them after the Third Sacred War—a fine that facilitated, if not enabled, the completion of Apollo's temple at Delphi. It is hard to explain why such an important victory was commemorated by only two private sepulchral memorials[114] in Boeotia, a place where memories of war and heroes were consciously kept alive.[115]

Decimated after their repulse at Delphi, the Gauls moved northwards. The Attalids' excellence in warfare led to the annihilation of the Gauls, which victory triggered the consecration of a whole sanctuary in honour of Athena Nikephoros (victory-bearer) in Pergamon[116] at the beginning of the 3rd century BC.[117] Temples in Sicily were built after victories in the battlefield.[118] The Temple of Zeus at Olympia, too, underlined the military supremacy of Elis over Pisa and Triphylia.

The Temple of Zeus Basileus at Lebadea makes sense as ἐπινίκειος ναός*, in fact being more than a post-war memorial. Its connection with the Gauls' invasion provides a chronological milestone helping to disentangle the date of the temple from an epigraphic document of variable (not absolute) chronology. In addition, the temple in question has certain political connotations conveyed via its design and location. The decision for its erection in the sacred Lebadea was not fortuitous. Lebadea, with the longest-lived oracle of all Boeotian divination centres and the Heroon of Arkesilaos (an outstanding Boeotian commander, killed by Hector during the Trojan War[119]) attesting to the town's antiquity and the primeval glorious past of the entire Boeotia, sets a venerable religious frame. The temple counterbalanced the Aetolians' rejoicing after the repulse of the Gauls in 279 BC—a manifold rejoicing manifested both architecturally[120] and politically (through monuments at Thermon and Delphi, the Amphictyony's reaction, the reorganization of the Soteria Games, etc.). The Boeotian League needed a prominent, distinguished monument to symbolize on the one hand the military alliance against the threat of a barbaric invasion, on the other hand the revival of a political coalition of all Boeotian cities. The Temple of Zeus embodies the above, and fills the aforementioned hiatus as regards the Boeotians' representation in the successful enterprise of 279 BC.[121] The inflated size of the temple reflects the prestige of the League as a distinct pan-Boeotian coalition, a worthy successor of the Theban hegemony. After all, Zeus Basileus was the pan-Boeotian god, who represented the Boeotians outside their homeland.[122] Thereby, in the sacred town of Lebadea the construction of a colossus stimulated the construction of collective memory of a battle won by a nation in unity. In other words, the temple commemorates an achievement of all Boeotian towns joining forces, and also joining forces with the rest of Mainland Greece. As in Pergamon, in Lebadea the political overtone of a victory is vested in the mantle of religious sentiment.

By the exact time the temple commenced—as we estimate, in 280 BC—an Attic decree[123] awards honours to a group of ten ταξίαρχοι, an Athenian embassy which performed sacrifices in the course of the Basileia at Lebadea. The Βασίλεια festival is reported by Diodorus Siculus (XV, 53,4) as taking place in Lebadea. Its date of establishment, however, is uncertain and a renewal of an already existing festival, perhaps after the repulse of the Gauls, cannot be precluded, on the analogy of the reorganized in 245 BC Soteria Games at Delphi; besides, the abundance of dedications by champions at the Basileia attest to the increasing popularity of the games in the Hellenistic period.[124] The Athenian embassy implies that the Basileia were supra-regionally acknowledged. Furthermore, the ethnic name "εἰς Βοιωτούς" in the decree suggests preparation jointly by the Hellenistic *Koinon* rather than individually by the town of Lebadea. Therefore, the Basileia can safely be associated with the Boeotians' federal status, especially since they are described[125] as a federal, political, and civic Hellenistic celebration. Precisely the same message, in our opinion, was conveyed by the colossal temple after the defeat of the Gauls.

[114] Nachtergael 1977, 191.
[115] Kalliontzis 2014.
[116] Displaying trophies and narrative in sculpture. The Temple of Athena was commissioned by Attalos I, whereas Eumenes II enriched the sanctuary with a two-storey propylon and porticoes: Webb 1996, 11, 57.
[117] Akurgal 1978, 76–77.
[118] The temple for Olympian Zeus at Acragas (Gruben 2000, 334) and the contemporary Temple of Victory at Himera commemorated battles against Carthage in 480 BC. The custom of presenting the gods with offerings for a success at war dates back to the Archaic period, but it experienced its greatest development from the Persian Wars down to the age of Alexander; "war edifices" were built on the tithe of booty: Jacquemin 1999, 148–149.
[119] Hom. *Il.* 15.329–330; Paus. 9.39.3–4. Leitos was another Boeotian warrior injured by Hector in Troy (Hom. *Il.* 13.91 and *Il.* 17.602, 605).
[120] Partida 2015; 2018.
[121] Partida 2015, 34–36.
[122] Schachter 1981, 112.
[123] Knoepfler 2008, 1439–1440.
[124] Which continued into the early Roman period, judging from the agonistic lists naming participants from exotic locales: Turner 1996, 106.
[125] Robert cited by Knoepfler 2008, 1449.

THE RELIGIOUS BACKBONE OF A POLITICAL CONFEDERACY

The expansion of the Boeotian *Koinon* in the early 3rd century BC was not confined to central Euboea,[126] but also spread to the Cyclades. Inscribed documents[127] disclose that, relieved from the burden of Athenian custody, the island of Delos developed relations with Boeotia. In the course of the 3rd century BC several musicians from Boeotia won prizes on Delos, whereas others received honours as πρόξενοι*. In 280 BC two contractors from Boeotia, Ameinonikos and Theodimos, worked on the propylon of the Delian Apollo temple. From the relevant decrees Gary Reger detects an element beyond political motivation: an attraction of religious nature. Intense religious sentiment was the driving force for Boeotians who travelled to Delos; as for the persons awarded with the privilege of προξενία*, they were most probably θεωροί*. Granted the supra-regional recognition of the Basileia, it is fair to assume that these were the games announced by Boeotian Θεωροί on Delos.

The above corroborates our argument that Lebadea, as the primeval religious cradle of the whole of Boeotia, was the most appropriate location for the erection of the gigantic and allegoric Temple of Zeus Basileus. Although scholarly attention is usually turned to the political backbone of the confederacy which succeeded the Theban hegemony, the religious spirit of the Boeotian League offers scope for exploration.

The cultic context

The καθοσίωση* of Lebadea derives not only from the cult of Zeus (Basileus, Meilichios, etc.) but also of Trophonios,[128] to whom pasture lands were dedicated.[129] His divination centre was the only one to continue delivering oracles when every other χρηστήριον* in the previously πολύφωνος*[130] Boeotia was silenced. Its location on the mountain is twice referred to by Pausanias (9.39.4–9 "ὑπὲρ τὸ ἄλσος", "ἐπὶ τοῦ ὄρους", meaning "above the grove", "on the mountain"), without clarifying whether it occupied part of the summit or the slope. The hemicycle included in the Lebadean building contract was attempted to be accommodated either in the cella[131] or along the exterior outline of the ground-plan[132] of Zeus' temple, even though such an arrangement is not sustained by the extant physical remains. If the temple was related to the process of divination, a semicircular exedra could be justified as a bench for the enquirers. In fact, by the date we propose for the temple (first quarter of the 3rd century BC) *Kleinarchitektur*[133] was quite popular at Thermon, Delphi, Olympia, and beyond. However, Pausanias's specification about the built parts of the oracle and its circular arrangement (an artificially structured—rather than naturally configured—chasm with a round barrier/fence and tightly adjoining blocks) leads us to ascribe the hemicycle and the curved orthostates of the contract to the oracle *outside/beyond the temple*, reflecting a remodelling and monumentalization[134] project which affected the whole site (slope and summit of Profitis Elias hill). A remodelling would also be consonant with the estimated[135] peak of the oracle of Trophonios in the 3rd century BC.

The circular configuration on the summit of Profitis Elias hill is barely convincing as locus of the oracle.[136] Neither do we assume that the oracle was sheltered inside the temple, e.g. in an *adyton* (hopefully the interior arrangement will be illuminated by geophysical prospection). In fact, there is no reason to surmise that the oracle was situated on the hilltop, given that the divination procedure was part of a nocturnal mystic rite and climbing up in the dark would pose an impediment to the enquirer, as well as to everyone involved. Moreover, it would increase the distance from the springs of Herkyna, indispensable to the divination/initiation ritual—an additional reason to restore the site of the oracle at the lower slopes or a little higher up the hillside.[137] The initiation of the temple construction provided a good opportunity for a remodelling of the oracle (or its hypothetical relocation/transfer), without necessarily presupposing proximity between the two.

[126] The expansion is discussed by Knoepfler 2014.
[127] Reger 1994, 73–78.
[128] Schachter 1984 confirms Parke 1979, 154–158.
[129] Migeotte 1994, 6.
[130] Plut. *Mor. De def. or.* 5.
[131] de Ridder 1896, pl. 9, accepted by Roux 1960, 181.
[132] Roux 1960, 181.
[133] Partida 2015, 39–46; 2018, 365, 368.
[134] Since the oracle of Trophonios was independent of geological features (earth fissure, emission of gases etc.), it afforded to be relocated or architecturally developed/transformed. Schachter (1984, 268–269) hypothesizes that the oracle was transferred, in his effort to compromise the grove with the sanctuary.
[135] Parke 1979, 158. Emphasis on the individual was one of the particularities of the Hellenistic age. This might have entailed changes to the oracle. Technically, descent to a cave-like underground chamber formed part of the primordial process of divination. The procedure followed is thoroughly described by Pausanias (9.39, rich commentary by Papahatzis 1981, 245–258; for mystic rites on literary evidence see Papadopoulos 2011). What we do not know is whether the procedure remained unchanged over the centuries of the oracle's operation.
[136] Vallas & Faraklas 1969.
[137] Drawing on Lucian and Philostratos (Bonnechere 2003, 17–22), it can be inferred that the oracle was situated closer to the grove than to the summit.

Fig. 15. The Trophonios relief. Hellenic Ministry of Culture & Sports—Archaeological Receipts Fund. Votive relief. National Archaeological Museum, Department of Sculptures Collection, inv. nr Γ 3942.

A DOUBLE CELLA?

The Boeotians could have honoured Apollo, the god of Delphi, for his intervention the night the Gauls were defeated, by dedicating to Apollo Ptoios or Ismenios. Instead, they preferred to erect a temple for Zeus Basileus on a prominent, elevated site near the renowned oracle of Trophonios, whose cult is supposedly older than that of Zeus Basileus.[138] In parallel, they probably remodelled the height (of Profitis Elias hill) overlooking the springs of Herkyna. It is hard to imagine that the major temple was disconnected from the oracle. The temple afforded shelter to rites, enquirers, and even the process of recording in writing the experience of those descending to the subterranean chamber of divination. A fusion between the god and the prophet is inferred from the invocation Zeus Trophonios in a 3rd-century BC inscription,[139] which can be interpreted as a manifestation of the Hellenistic religious syncretism. Alternatively the two deities were co-worshipped, sharing the huge temple, spacious enough to contain a double cella, as in the Temple of Athena Nikephoros at Pergamon or that of Ares and Aphrodite in Argos.[140] We hope to obtain information on the interior arrangement, including the whereabouts of the cult statue's pedestal, through geophysical prospection over a next phase of our expedition. This should also resolve details in design, such as the precise position of the "πλευριαῖα θύρετρα" mentioned in the contract. The temple's archaizing oblong ground plan with an accentuated long axis calls for the restoration of the θύρετρα on the lateral sides, rather than flanking the main entrance.[141]

In the Roman times the Τροφώνια Ολύμπια ἐν Λεβαδείᾳ* were celebrated,[142] perpetuating the syncretism/fusion of prophet Trophonios with Olympian Zeus. In such an ambience it is conceivable that the respective installations (oracle and temple) were maintained in parallel; then the inclusion of the oracle in the building contract, within the frame of an overall remodelling of the temple setting in the 3rd century BC, is quite plausible.

THE PANTHEON OF LEBADEA

Of special interest is the amalgam of divinities at Lebadea, which, together with Trophonios, supposedly represented cosmic revival or renaissance.[143] The pantheon in question, deities of Nature and the Underworld flanking the hero-prophet-architect[144] is rendered in a votive relief of local, Lebadean stone (*Fig. 15*).[145] Surprisingly, the figure of Zeus does not appear in this representation, unless the syncretism/fusion between

[138] Papahatzis 1981, 251.
[139] *IG* VII 3090, suggesting that the two cults were conflated while, in other instances, they received joint dedications: Turner 1996, 112; Schachter 1984, 262.
[140] Fusco 2015–2016.
[141] As proposed by Roux 1960.
[142] Knoepfler 2008, 1451.
[143] Bonnechere 1998. With Cronos, a god rarely depicted, having at Lebadea his statuary representation (Paus. 9.39.4).
[144] Trophonios was one of the architects of the Temple of Apollo at Delphi (*Hymn. Hom. Ap.* l. 296), who was subsequently blessed with the gift of foreseeing the future.
[145] National Archaeological Museum, inv. no. 3942: Kaltsas 2001, 216–217, cat. no. 448.

him and Trophonios had already occurred. We cannot help relating that by the time of the relief, in the third quarter of the 4th century BC, the iconic temple's construction had not yet begun. Moreover, had the Basileia festival been established after the Battle of Leuctra (371 BC), the homonymous deity would logically occupy a central, distinguished position in the relief representation. The particular synthesis of figures, in our opinion, lowers the date of the Basileia (re-)organization, bringing them closer to the period when Boeotian Θεωροί were honoured on Delos, and also to the date we propose for the temple erection, in the early 3rd century BC.

Curiously, although the Emperor Hadrian is supposed to have visited Boeotia and been involved in the drainage project or flood control of Lake Copais,[146] he took no action with regard to the Temple of Zeus, in sharp contrast to the reconstruction or completion operations he undertook elsewhere (Athens, Mysia-Bithynia, Ephesos, Claros). Had the Mithridatic Wars and Sulla's invasion in 86 BC, which razed part of Boeotia,[147] damaged the temple, ancient authors would have mentioned it. Nonetheless, the sanctity of Lebadea was kept alive as late as the Antonine Dynasty:[148] Ομόνοια Ελλήνων* was worshipped near the oracle (Τροφώνειο), with the services of a priestess.[149] The personification of "Concord among the Greeks", rooted in the agitation throughout the Hellenistic period, seems to perpetuate precisely the notion of coalition underlined by the Temple of Zeus and it almost coincides with the definition of Ὁμολώιον (peace and consensus), the ancient name of Profitis Elias hill.[150] Also worth noting is that—as a rule—the cult of Ομόνοια was linked to that of Zeus: Zeus Eleuthereus at Plataiae, Soter, Nikephoros, and Patroos in other places. Without doubt, at Lebadea it was linked with the cult of Zeus Basileus. The above offers an additional reason why a double cella can be expected, regardless of whether the second compartment's occupant was Trophonios, Ομόνοια, or Hera Basilis, also worshipped here.[151] Seeing the religious tradition still alive during the Roman Imperial period, interweaving any newly introduced cult with that of Zeus, we consider it most unlikely that the Boeotians had given up on the temple and abandoned it at a low level of construction.

Visual impact and the manifold notion of monumentality

The architectural study of the physical remains confirms Pausanias's remark on the exaggerated size of the temple. Besides representing a demanding project in terms of layout, engineering, and logistics, the temple at Lebadea casts light upon the notion of monumentality and its dynamics for ancient Greek architects.

The launching of the respective building programme called for meticulous planning and co-ordination while preparing the worksite. It is easy to imagine the specialized teams in action. The project involved the whole town, and all of Boeotia; in such a perspective, it seemed equivalent to preparing for a military campaign. A large number of qualified stone-cutters, contractors, masons, craftsmen, labourers, and scribes, besides the architect, were engaged in the temple construction. Matters of management had to be tackled in advance, providing for several practical issues, such as the quarrying and transportation of stone, which required machinery, cranes, equipment able to manoeuvre excessive weight, as well as infrastructure, such as a network of (new?) roads for access to the worksite. Surely the above activated all the civic and financial "engines" of Boeotia.

The grandiose temple crowning the hilltop (possibly the ancient Ὁμολώιον)[152] and framed against the sky befits the supremacy of Zeus Basileus. Indeed it became a landmark as, 18 centuries later and despite its unfinished state, the temple was recorded by Cyriacus of Ancona, to whom we actually owe the identification of the remains.[153] Unfortunately its prominent location made it an easy target for bombardment during World War II.[154] The imposing placement and colossal dimensions of the temple guaranteed visibility from afar,[155] implying that this monument involved and addressed the entire community, Boeotian and panhellenic. Size and setting/

[146] One of the Emperor's engineering and architectural gifts: Boatwright 2000, 113. Hadrian is supposed to have received an oracle at Lebadea: Papahatzis 1981, 245.

[147] Lebadea was sacked and its oracle despoiled: Plut. *Vit. Sull.* xv–xxi, xxvi; App. *Mith.* 41–45, 49–50. On Sulla's invasion, deserted territories and the plundering of temples: Frazer 2012, 27.

[148] Knoepfler 2008, 1432.

[149] Thériault 1996, 127–130.

[150] "τὸ ὁμονοητικὸν καὶ εἰρηνικὸν ὅμολον λέγεσθαι": Cook 1925, 900—the term "ὅμολον" being relevant to peace and consensus.

[151] A dedication to Hera Basilis by a priestess (*IG* VII 3097) dates to the early Roman period. Juxtaposing with the content of *IG* VII 3096, it seems likely that two spouses held the priesthoods of Zeus Basileus and Hera Basilis, respectively (Turner 1996, 109–110).

[152] Cook 1925, 900.

[153] Cyriacus copied an inscription from within the temple ruins, which concerns a dedication to Hera Basilis (*IG* VII 3097), epigraphically known to be the consort of Zeus Basileus: Turner 1994a, 17; 1994b, 377–381.

[154] Vallas & Faraklas 1969, 230.

[155] Probably visible also to the Pythaïs procession, since its route included Lebadea, a town situated at crossroads (Kühn 2018, 197, 202, 207, 263). On a Boeotian sacred way linking Lebadea with Schiste Odos and Delphi: Typaldou-Fakiris 2004, 313. In addition, the oracle of Trophonios was an important source of traffic (and income from abroad: Schachter 2016, 139).

vista were instrumental in underlining the commemorated events, ensuring their remembrance over the centuries.

Details like the high krepis elevating the structure and the monumental access ramp offer a glimpse of the intended setting. The ramp mitigates the resulting difference in level but it also accentuates the ritual access to[156] a prominent—in size and semantics—temple.

A peculiar trait that lays emphasis upon the temple façade and adds to monumentalization is the paving at hypeuthynteria level. This *unicum* in Classical temple construction adds to the idiosyncratic character of this Boeotian edifice. Finally, the unique employment of the hard blue-grey Lebadean limestone in the entire cella denotes the increased labour and effort required for carving the blocks, eventually producing an exceptional, lavish ensemble.

Following the architectural, archival, and administrative practices of the great sanctuaries, the building contract of the Temple of Zeus Basileus at Lebadea would be set up in public view, probably on the temple premises. The engraving of the contract on a series of stelae forming a parapet (on the analogy of building accounts displayed in proximity to the Delphi oracular temple) sharpens the monumental character of this building programme.

This temple appears as an inflated or exaggerated version of a Classical Doric temple, as if each one of its components was viewed under a magnifying lens. Traits of surface treatment (anathyrosis bands, undercut mouldings on the krepis grades, bevelled joints), which normally are eye-catching details, assume here a superlative form. In this way the specific temple is inflated in three dimensions, yet in balance, dominating the landscape of Lebadea and overlooking the sacred town. Visibility from a distance must have determined its design in excessive dimensions.

Increase in size presupposes knowledge and skills in architectural computation, to avert a distorted, deformed, or disproportionate outcome. Analogous expertise was required for the inverse process, of scaling down, typified in the "shrunken" Roman imperial replicas of ancient Greek prototypes.[157] This comparison helps us understand the mentality: on the one hand, a public monument is commissioned by the community, thus representing society as a whole; on the other hand, a private order is made by some wealthy individual, and so the sculpture is scaled down, to meet the requirements of some patron nurtured in Greek antiquity. The patron uses the sculpture to decorate private domestic quarters, whereas the colossal temple—precisely by means of its enormity—involves the entire confederacy. The subliminality of the temple rests in that it represents all people of Boeotia collectively, all Boeotian cities and their legacy.

Ranked by the columns' lower diameter (2.03–2.05 m), the Temple of Zeus is the largest temple in the Greek Mainland and the second largest Doric temple in Greece, after the Temple of Zeus in Olympia (lower diameter 2.25 m), followed closely by Philo's Portico in Eleusis (1.94 m) and the Parthenon (1.91 m and corners 1.95 m). The entire krepis is 1.5 m and 2 m short of the Parthenon's stylobate which, however, has a peristasis of 8 x 17 columns. However gigantic the temple at Lebadea, its size was further increased. Indicative of the "augmentation"/inflation are the 14 columns along the flanks (increase of length) and the visible euthynteria and hypeuthynteria; the latter resulted in a krepis rising 2.56 m above the floor level. As the three lowermost courses of the krepis (hypeuthynteria, euthynteria, and first step) stand vertically 1.45 m tall, the temple was practically accessible only from the ramp. Overall, the result is one of an elevated peripteral temple standing on a podium conceived within the Classical vocabulary, in the manner already seen in the exposed stereobate of the Parthenon[158] and the (partially exposed) stereobate of the Temple of Apollo at Delphi. Evidence for upward curvature has been advanced in the Heroon at Messene,[159] the Ionic propylon to the sanctuary of Apollo Karneios at Cnidus,[160] and the Ptolemaion at Limyra.[161] Apparently this optical refinement was not forsaken in the Hellenistic period. Judging from the relatively lesser dimensions of these buildings, it is reasonable to suggest that, in the case of Zeus' temple, the voluminous size itself could have incited the builders to deliberately refrain from implementing curvature at krepis level.[162]

The material required for the construction of a 200-foot-long temple would equate the building material of eight *hekatompedoi* or four times the material used in the large Temple of

[156] For recent studies on the use of ramps in temples, see Sporn 2015 and Sneed 2020. As regards the substantial ramp at the Temple of Zeus at Lebadea, its inclination and form should help us decipher this element at a further stage of our research. Regardless of whether its role was ritual, aesthetically pleasing, or functional (as in the sanctuaries of Asklepios at Corinth and Epidauros), the ramp as an architectural feature falls in the Peloponnesian/Mainland Doric tradition (the ramp in the Temple of Apollo at Delphi may be associated with the Peloponnesian origins of one of its architects, the Corinthian Spintharos). Its different contexts, however, call for *ad hoc* interpretations rather than a generalized approach.

[157] See, for example, the undersized replicas in marble reproducing the gold-and-ivory statue of Athena by Pheidias and that of Herakles by Lysippos, both in the Archaeological Museum of Patras.

[158] Stevens 1962, 337. By contrast, during the end of the 4th century, and in a context of tall Ionic krepides and podia, the Doric Temple of Apollo at Claros has four steps above the euthynteria (Moretti, Bresch & Malmary 2016, 588–590).

[159] Cooper 1999, 185.

[160] Bankel 1999, 127.

[161] Stanzl 1999, 155.

[162] Gruben (2000, 143) explains that, perhaps, at Bassae Iktinos did not trust the local workshops for implementation of the curvature of the krepis out of the local hard, recalcitrant, limestone. Dinsmoor suggests

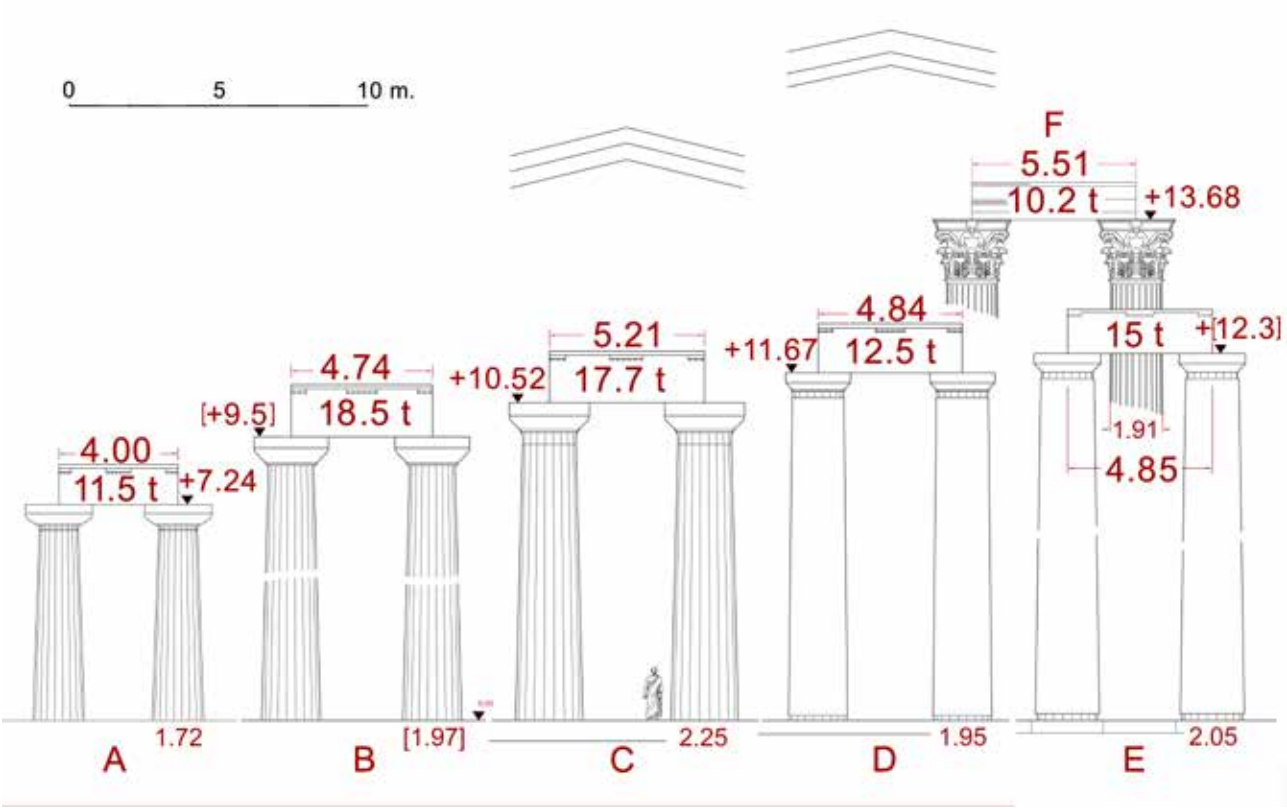

Fig. 16. The largest post and lintel systems in Mainland Greece with column height, lower diameter of column, span in metres, and corresponding load of architrave beams in tonnes (t). A: Temple of Apollo in Corinth, oolite; B: Great Temple, Corinth, oolite; C: Temple of Zeus, Olympia, poros; D: Portico of Philo, Eleusis, Pentelic marble; E: Temple of Zeus, Lebadea, local poros; F: Temple of Zeus, Athens, Pentelic marble. Illustration by C. Kanellopoulos with A modified after Andrikou (2019, 25, fig. 1).

Apollo at Thebes.[163] This would make it the second 200-foot-long temple in Greece. Quite interestingly, the stylobate in the Temple of Zeus in Olympia was also 200 Olympian feet long, each foot measuring 0.3204 m.[164] For a better grasp of the size in relative terms, one *hekatompedos* temple would fit inside the enormous cella proper of the great Temple of Lebadea. Theoretically, the operation of quarrying and transportation of the temple's building material is comparable with the logistics involved during the construction of a large theatre, which is affordable by a city. Given that the theatres of Boeotia (Oropos, Chaironeia, and Orchomenos) were of moderate proportions and partially carved in natural rock, Boeotia had not undertaken a task of similar proportions. Furthermore, while there are unfinished temples, there are no unfinished theatres, as the latter do not involve the challenge of quarrying, transporting, and lifting architrave beams.

The Temple of Zeus has the largest post and lintel system after the Portico of Philo in Eleusis (318 BC) and before the construction of the peristasis in the Temple of Olympian Zeus in Athens (178 BC).[165] The columns are reconstructed with a

that the refinements at Bassae were too costly to be executed for such a remote temple (Cooper 1996, 151, with related bibliography).

[163] In the large Temple of Apollo the dimensions of the euthynteria would be 22.83 m and 46.25 m; the lower diameter in each of the peristasis columns is 1.60 m (unfluted).

[164] Hennemeyer 2012, 122 with related bibliography. On the comparison of the size of the two cellas, see also Dinsmoor 1950, 268. The cella of the temple at Lebadea is approximately 45.85 m long, or about 0.80 m shorter than that in the Temple of Zeus in Olympia; the latter cella is approximately 46.65 m long. Gruben (2000, 253) identifies a length of approximately 200 feet also in the first Temple of Olympian Zeus in Athens. Apparently this range of size in temples of Zeus in the Mainland and the Peloponnese cannot be a coincidence.

[165] *Fig. 16* presents the largest post and lintel of its time in the Greek Mainland. The interaxial column spacing in the Portico of Philo is 0.01 m shorter than the one in the Temple of Lebadea, whereas the height of the columns is slightly below six times the lower diameter. The Parthenon is not included in the same image; its interaxial column spacing (4.29 m) and column height (10.43 m) are shorter than the ones of the Temple of Zeus at Olympia. The Temple of Olympian Zeus at Athens is also included, as the design and the building works were already underway in the late 4th century BC (Korres 1999, 28). Indeed, Cretan traveller Herakleides' well-known mention of the unfinished Temple of Olympios Zeus ("Περὶ τῶν ἐν τῇι Ἑλλάδι πόλεων", meaning "About the cities in Greece", I.1) should

minimum height of six lower diameters (or 12.30 m tall), seen after the middle of the 4th century BC, possibly with a height closer to 6.13 lower diameters, or 12.50 m (*Figs. 11, 16*).[166]

In the post and lintel architecture, the element/register strained the most is the architrave. This course consists of the longest and, therefore, the heaviest blocks, which also had to be lifted up to the uppermost parts of the construction. The interaxial column spacing of 5.21 m in the Temple of Zeus in Olympia remained the longest span for 300 years and the architrave beams of the Great Temple at Corinth, the heaviest loads ever (*Fig. 16*). Quite possibly, the identical interaxial column spacings at Eleusis and Lebadea may betray a deliberate connection between the two buildings; the colossal temple for Zeus would have, perhaps, to conform or compete with the standards set by Philo's achievements. In Philo's Portico however, only 45 architrave beams were required to be quarried and lifted accurately into position, as opposed to the 82 such beams at Lebadea.

The Temple of Zeus appears as a product of the period after the gigantic temples of the 4th century BC in Asia Minor (Ephesus, Claros, and Miletus), Athens (Olympieion), and Eleusis (Philo's Portico). The construction of these temples also started in the late 4th century; however they, too, were not completed before the age of Hadrian or were left unfinished. Thus, they became conscious commitments of the cities and of the generations to come. The reasons given by Pausanias for the unfinished state of the temple at Lebadea are rather speculative; the ancient traveller suggests that the unfinished appearance of the colossal temple is due to its size and/or successive wars.[167] In fact, as explained above, the erection of any temple with a column diameter of approximately two metres was resumed within a time span of five centuries or was never finished.[168] Quite possibly, the true factor behind the failure was the difficulty in finding 82 enormous architrave beams of poros stone without flaws, cracks, or voids.

The unfluted, bossed, drum and the mantles and bosses on the cella ashlars corroborate Pausanias's (9.39.4) description of an unfinished temple. The documented material suggests that the peristasis in certain areas was built to the level of the frieze.[169] It cannot be precluded that a portion of the cornice was also installed in place. The date of the large crown of the ramp suggests that the temple entrance received this refinement *after* the 3rd century BC, even though part of the cella and the peristasis had been accomplished in the 3rd century. Given that the ramp served also the worksite with the manoeuvring of heavy building elements, this moulding was the last detail to carve, as usual with delicate architectural ornaments. In other words, the execution of the ramp moulding signifies the completion of the temple.

Not since the Temple of Tegea has the religious architecture of Old Greece exhibited such enthusiasm and ambition. Considering that advances appear in temples of the large scale and given the traditional, standardized, peristyle, the architect's imagination and developments are expected to have appeared in the interior.[170]

UNFINISHED

Without precluding a restart/resumption of building operations (possibly in *c.* 230 BC), we propose that—having been laid out 50 years earlier—construction had reached an advanced level compared to that estimated by previous scholars. That construction had proceeded to registers[171] considerably higher above the orthostate level can be inferred from: (1) two (newly spotted among the dispersed spolia) poros blocks attributable to architraves, especially as they have sockets for the dowelling of frieze blocks, as described above, (2) traces of pavement (flagstones) adjacent to the east hypeuthynteria, which is a refinement of landscaping impossible to carry out at the outset of construction, (3) a floor slab/paver in the west part of the temple, cracked in half after having suffered a strike or burden from above, apparently due to collapse of columns or entablature parts (*Fig. 12*), (4) the moulding carved along the top course of the access ramp, paralleled by a comparable coping stone on the ramp of the Asklepieion at Corinth, of the late 4th century BC[172]—an ornamental detail executed during the final stages of construction, and (5) the paved floor, which—on its own merit—speaks in favour of a nearly complete construction. With the aid of inscribed building accounts, which unveil the sequence of construction, the Temple of Apollo at Delphi[173] demonstrates that laying the floor

not be understood as referring to the Peisistratid construction, which had been recycled in the Themistoclean fortification and was, therefore, unseen; instead, the traveller of the 3rd century BC must have referred to the unfinished marble temple under Lycourgos (Tsalkanis, Kanellopoulos & Tsatsaroni 2019, 133, n. 9). As with the gigantic Portico of Philo in Eleusis and the peristasis in Lebadea, the Athenian Olympieion was not finished. The density of the oolite limestone in the temples of Corinth is calculated as 2.5 metric tons per cubic metre (Frey 2015, 161).

[166] Pakkanen 2004, 107; 1998, 73.

[167] "... καὶ Διὸς Βασιλέως ναός. τοῦτον μὲν δὴ διὰ τὸ μέγεθος ἢ καὶ τῶν πολέμων τὸ ἀλλεπάλληλον ἀφείκασιν ἡμίεργον" (Paus. 9.39.4).

[168] A portion of the Temple of Apollo at Claros, with a column lower diameter of 1.80 m, was erected during Hadrian's reign.

[169] Following the traditional practice, peristasis columns were erected in groups starting from the four columns on the facade (Korres 2001, 50–51, 107–109, pl. 19).

[170] Winter 1982, 387–389.

[171] An inscribed fragment referring to upper registers (Jannoray 1940–1941, 37–40) can be dissociated from the temple's building account, on the grounds of palaeography.

[172] Roebuck 1951, 67.

[173] Compared also to the Temple of Asklepios at Epidauros: Roux 1979, 199, 206, 213, 216.

slabs was among the masons' final tasks, such as fluting the columns and trimming off the protective mantles. Chippings were swept away prior to paving the floor.

Despite the copious deciphering of the Lebadean building contract and inscriptions concerning the Basileia festival, plenty of pertinent information eludes us. The position of the Temple of Zeus Basileus at an altitude of 397 metres above sea level logically allowed it to overlook the equestrian games held in Zeus's honour in the Hellenistic era;[174] we would expect the—not located as yet—hippodrome close nearby in the εὐρύχωρος* Lebadea.[175] The epigraphically known[176] bronze phiale dedicated to Zeus Basileus would reasonably be deposited in his temple along with other votive offerings (25 precious metal objects[177]) except—obviously—the ἐλαιοχρηστήριον*.[178] Such pieces of evidence indirectly corroborate our argument against the temple's incompletion/unfinished state at a low level.

The unusually concise account of Pausanias, all the more so, with regard to a hill crowned by several (remains of?) temples, arouses some doubt as to the ancient traveller's personal inspection of the site.[179] The brief passage "... καὶ Διὸς Βασιλέως ναός. τοῦτον μὲν δὴ διὰ τὸ μέγεθος ἢ καὶ τῶν πολέμων τὸ ἀλλεπάλληλον ἀφείκασιν ἡμίεργον" (Paus. 9.39.4)[180] comes in sharp contrast both to his full account of the Trophoneion oracle (9.39.14) and to his customarily thorough descriptions. It raises the question whether it is possible that Pausanias did not actually visit the summit of Profitis Elias.[181] At any rate, the hill dominated the landscape of Lebadea and its peak was bound to fall in the sight of travellers, pilgrims, and procession participants en route from the direction of Athens. Pausanias's choice—in just a few lines—to comment specifically on the unfinished state of the Temple of Zeus, rather than any other of the relics of the summit, may be taken to imply that the monument was visible from afar and therefore rising adequately above the orthostates level.

Epilogue

The question of administration reasonably arises: who managed the oracle and the games? Was it the town of Lebadea or the *Koinon* of the Boeotians? Instead of theoretically allocating jurisdictions, we would draw attention to the analogy with the Aetolian League and its federal sanctuary at Thermon. Similarly, the ever-sacred Lebadea became the religious cradle of the Hellenistic Boeotian League. The "giant" of Lebadea was destined to be a visual expression of national solidarity.

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Appendix. Catalogue of selected elements among the ruins of the temple

No. 1. Unfinished column drum, now lying upside down in the depot west of the temple. Yellowish poros stone. The drum can be attributed to the peristasis shafts. Diameter of approximately 2.07 m on the mantle surface; overall height: 0.701 m. The cylindrical surface is treated with a fine pick and a recessed setting band 0.113 m deep. The drum preserves two lifting bosses on the centre of gravity (i.e. the boss is midway along the height of the drum), each one 0.22 m square, and empolia 0.095 m and 0.10 m deep on both the lower and the upper surfaces. *Fig. 17.*

[174] Migeotte 2010, 138; on the ἱππάφεσις* see also Migeotte 2006, 16. A stadium, too, is epigraphically attested (Turner 1996, 107–108; Migeotte 2006, 16) on a stele recording transactions by Xenarchos, the ἀγωνοθέτης* of the Basileia.

[175] Knoepfler 2008, 1456.

[176] Migeotte 2010, 138.

[177] According to an inventory of the sanctuary's property engraved on the stele of Xenarchos (Turner 1996, 108).

[178] Venue for the anointment of athletes prior to their participation in the Basileia games: Knoepfler 2008, 1441.

[179] Analogous case at Marmara on Mount Parnassos, where cult remains went unrecorded by Pausanias: Partida 2017b, 224.

[180] "... and a temple of Zeus Basileus. This was left unfinished because of its size or/and the consecutive wars".

[181] Which means the oracle was set up elsewhere. It is easy to be entangled in a chain of consecutive speculations triggered by the tentative placement of the oracle of Trophonios at the summit of the hill. Given that the process of divination at Lebadea was nocturnal, Pausanias "ascended" (if the oracle was up a slope) at night and the darkness prevented him from providing a thorough record of what was there. Unfortunately nothing is visible today of the pit construed (by Vallas & Faraklas 1969) as the entrance to a cavity underground, and the textually described meagre remains hardly suffice to refute the (equally plausible) placement of the oracle near the springs of Herkyna, tightly interwoven with the ritual of divination. In default of concrete evidence, any proposition remains conjectural.

Fig. 17. Cat. no. 1. *Unfinished column drum of the Temple of Zeus. Photograph by C. Kanellopoulos.*

No. 2. Fragment of a Doric capital, lying directly north-east of the temple. Yellowish poros. Dimensions 0.85 x 0.90 m; abacus height 0.320 m. The slope of the echinus is approximately 55 degrees off the horizontal plane (*Fig. 13*). The portion of the diagonal line between the corner of the abacus and the circle of the inscribed echinus is 0.447 m; the side of the square abacus is therefore calculated as *c*. 2.16 m.[182] *Fig. 18.*

Fig. 18. Cat. no. 2. *Fragment from a column capital. Photograph by C. Kanellopoulos.*

No. 3. Large fragment of yellowish poros, lying directly south of the temple. Height 1.470 m, width 0.862–0.866 m, extant length 1.79 m. The fragment retains two cuttings for the insertion of Π-shaped clamps on the preserved thrust surface. The fragment is identified as a beam from the architrave course or a backer of the Doric frieze. The top surface has a dowel hole for fastening the corresponding frieze block or the cornice block above, respectively. One side retains a shallow mantle, 0.52 m wide. *Fig. 20.*

No. 4. Large fragment of yellowish poros, lying directly south of the temple. Width 0.618 m, extant height 1.168 m. The width of the anathyrosis band is 0.17 m. The fragment can be identified as a beam from the architrave course of the pronaos. *Fig. 19.*

Fig. 19. Cat. no. 4. *Architrave fragment from the pronaos of the Temple of Zeus. Photograph by C. Kanellopoulos.*

No. 5. Header from the cella wall lying in the depot west of the temple. Marked with number 212. Grey limestone. Length: 1.205 m. The width of the block and the corresponding width of the wall of the cella is 1.165 m; height 0.654 m. The upper surface retains cuttings for the insertion of Π-shaped clamps, pry holes, and dowel holes for fastening the stretchers of the course above. The outer surface batters 7:540 off the vertical plane. The vertical surfaces are treated with stippled mantles and bosses. Width of the anathyrosis bands: 0.170–0.174 m. *Fig. 21.*

No. 6. Block either from the corner of the cella wall or from the junction of the cella with the screen-wall, lying directly west of the temple. Grey limestone. Height 0.654 m; length 1.798 m; overall width 1.202 m. The upper surface retains cuttings for the insertion of Π-shaped clamps, pry holes, and dowel holes for fastening the stretchers of the course above. The outer surface batters 12:400 off the vertical plane. The outer surfaces are treated with stippled mantles, finely picked and preserving bosses. Width of the anathyrosis bands: 0.171–0.174 m. *Figs. 22, 24.*

[182] This dimension is quite close to the capital width given by Dinsmoor Sr (1950, 268, n. 3): 7 imperial feet 6 ¼ inches or 7 Doric feet (= 2.286 m). Did Dinsmoor Sr actually see the fragment of this capital and work hurriedly his own calculations?

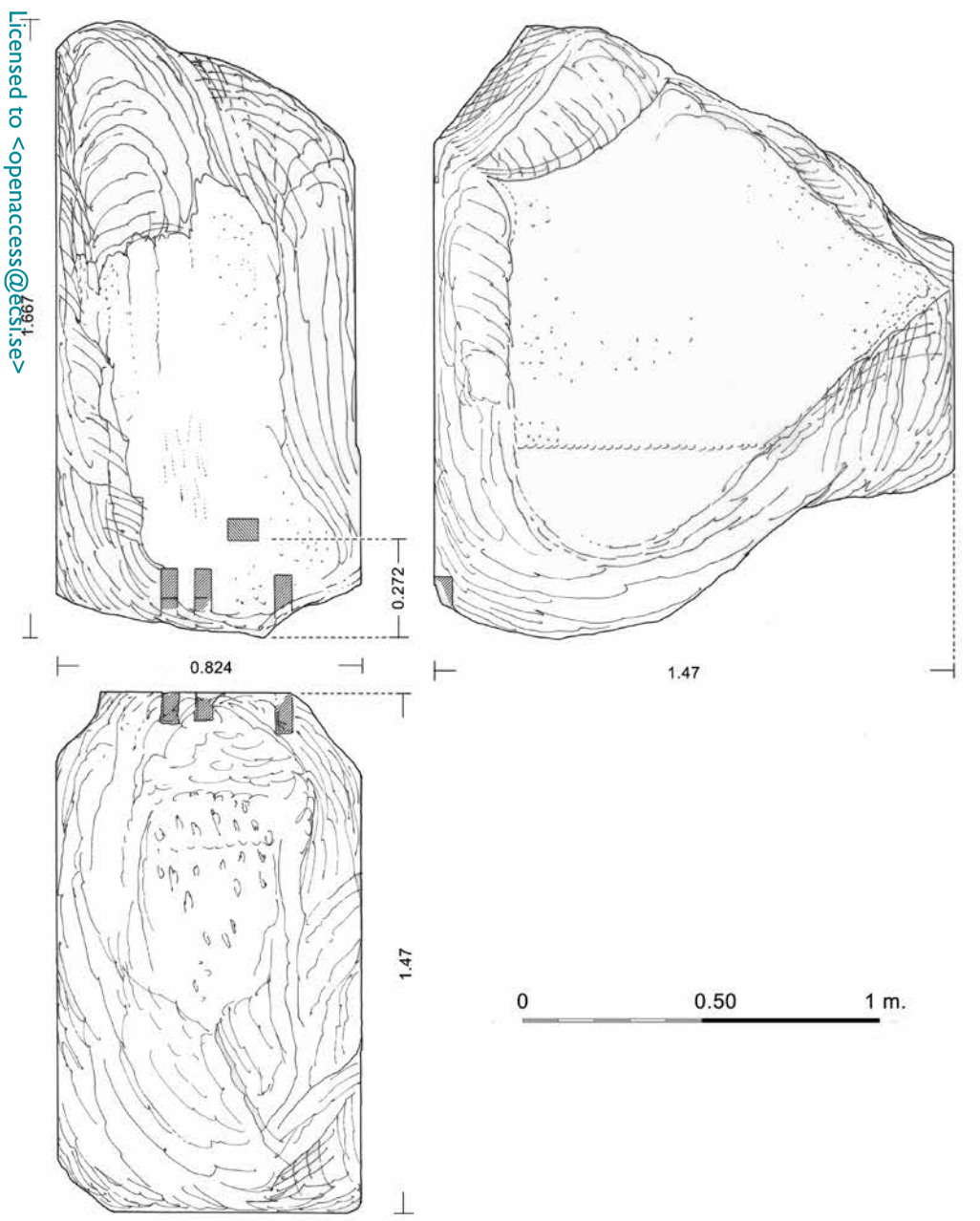


Fig. 20. Cat. no. 3. *Architrave fragment or backer of the frieze from the peristasis of the Temple of Zeus. Drawing by C. Kanellopoulos.*

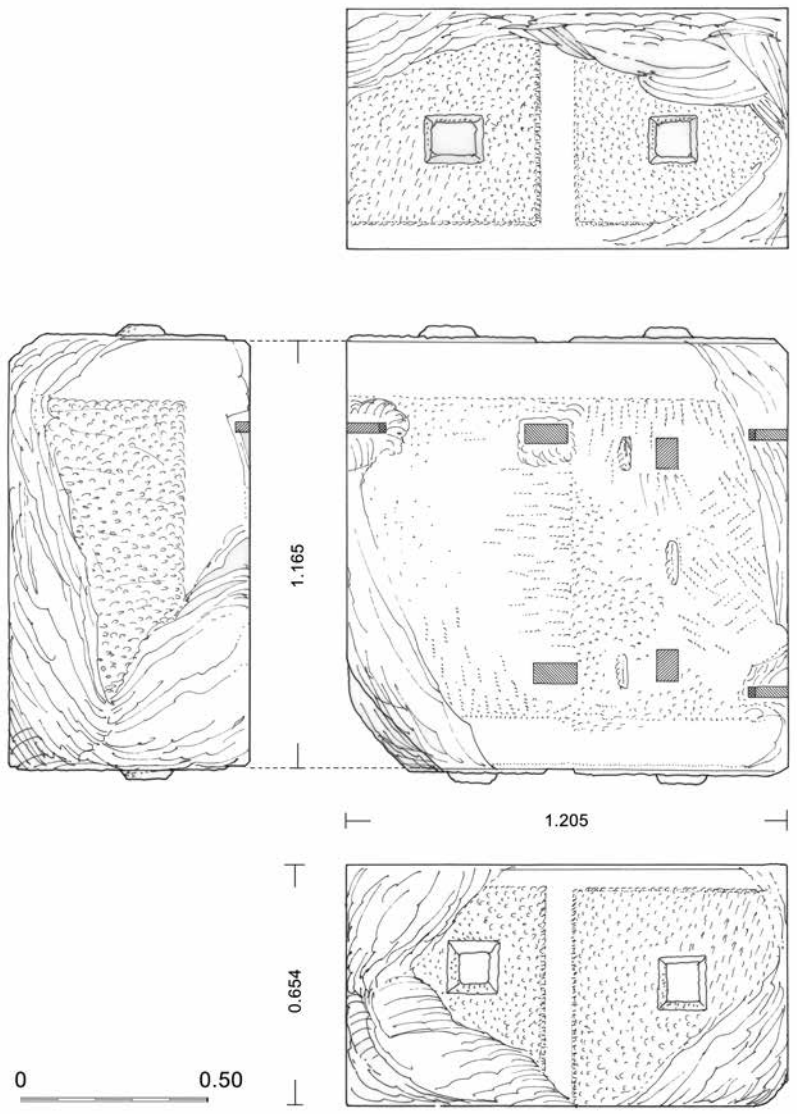


Fig. 21. Cat. no. 5. *Header from the cella wall. Drawing by C. Kanellopoulos.*

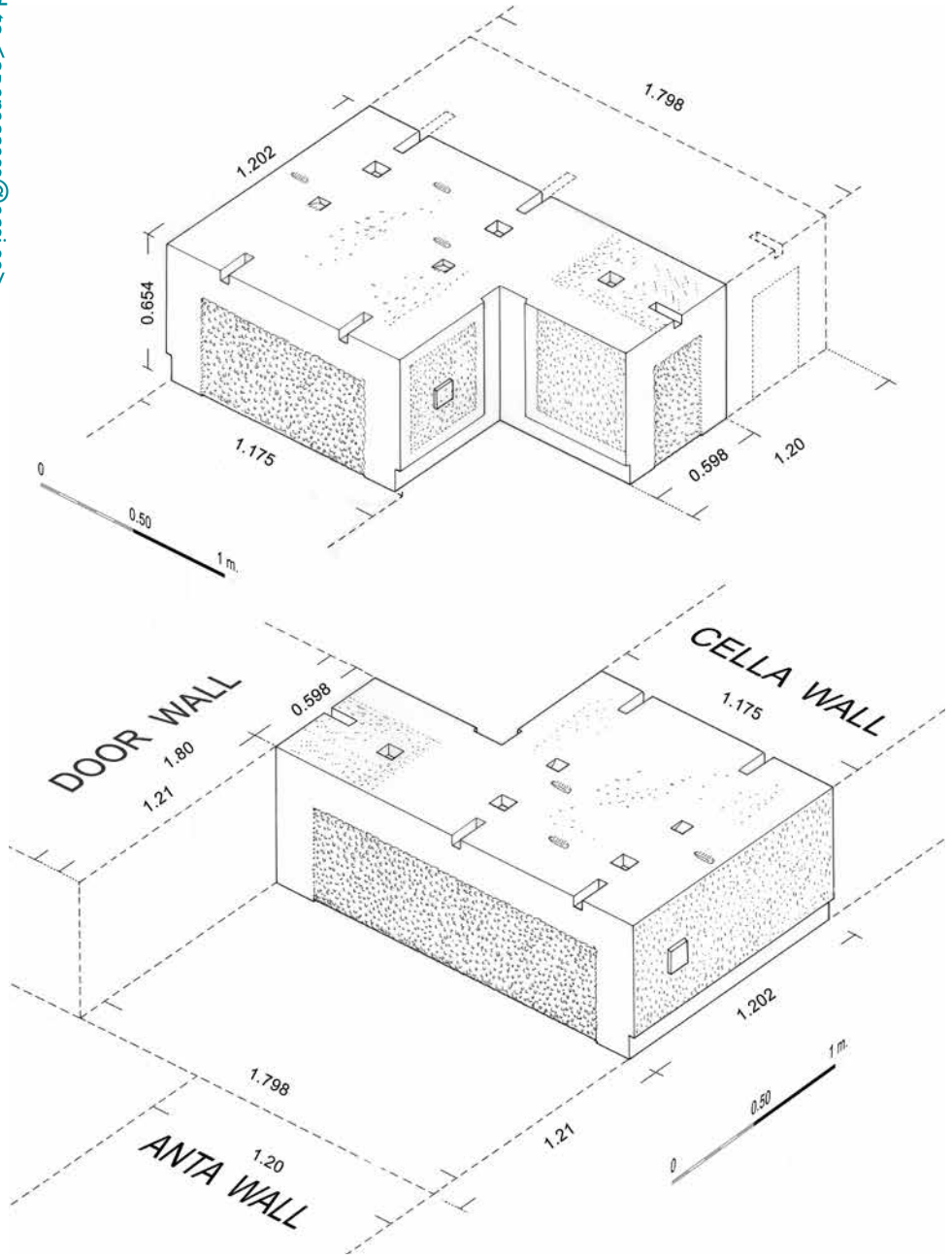


Fig. 22. Cat. no. 6. *Corner block of the cella. Axonometric reconstruction. Illustration by C. Kanellopoulos.*

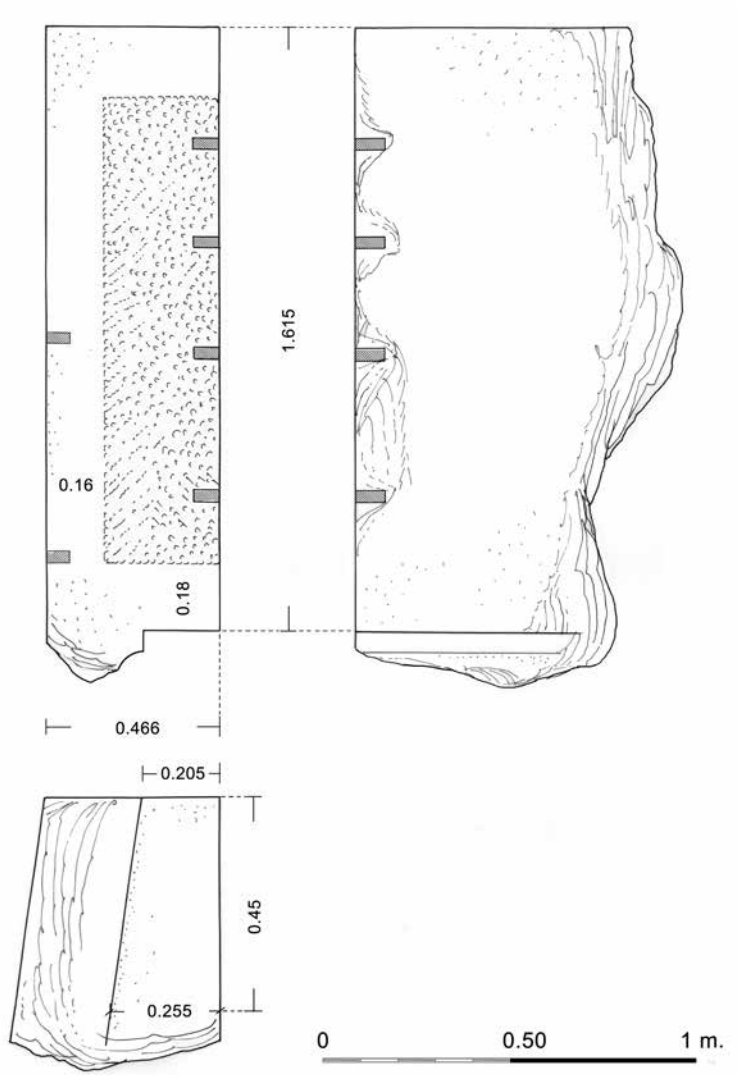


Fig. 23. Cat. no. 7. *Coping block of the ramp. Drawing by C. Kanellopoulos.*

Fig. 24. Cat. no. 6. *Corner block of the cella. Photograph by C. Kanellopoulos.*

No. 7. Moulded coping stone, lying directly east of the temple. Grey limestone. Height 0.466 to 0.51 m; the height of the moulded part is 0.258 m. Gradient of the moulded part is approximately 9:1 (6.34 degrees off the horizontal plane or 11%). The thrust joint retains four dowel sockets. At least one clamp socket on the upper surface indicates that another course was superposed. *Figs. 23, 25.*

Fig. 25. Cat. no. 7. *Coping block of the ramp. Photograph by C. Kanellopoulos.*

No. 8. Poros block, most probably from the superstructure, lying directly east of the temple. Width 0.984 m and height 0.412 m. The upper surface retains cuttings for the insertion of Π-shaped clamps, pry holes, and dowel holes for fastening the course above. The bottom surface has a T-shaped cutting for the employment of a device that facilitated setting/laying the block in place. *Fig. 26.*

Fig. 26. Cat. no. 8. *Poros block from the superstructure. Photograph by C. Kanellopoulos.*

No. 9. Header from the cella walls, lying in the depot west of the temple. Marked with number 11. Grey limestone. Length 1.214 m; width 1.154 m; height 0.653 m. The upper surface retains cuttings for the insertion of Π-shaped clamps, pry holes, and dowel holes for fastening the stretchers of the course above. The vertical surfaces are treated with stippled mantles and bosses. The width of the anathyrosis bands is 0.170–0.174 m. *Fig. 27.*

Fig. 27. Cat. no. 9. *Header from the cella walls. Photograph by C. Kanellopoulos.*

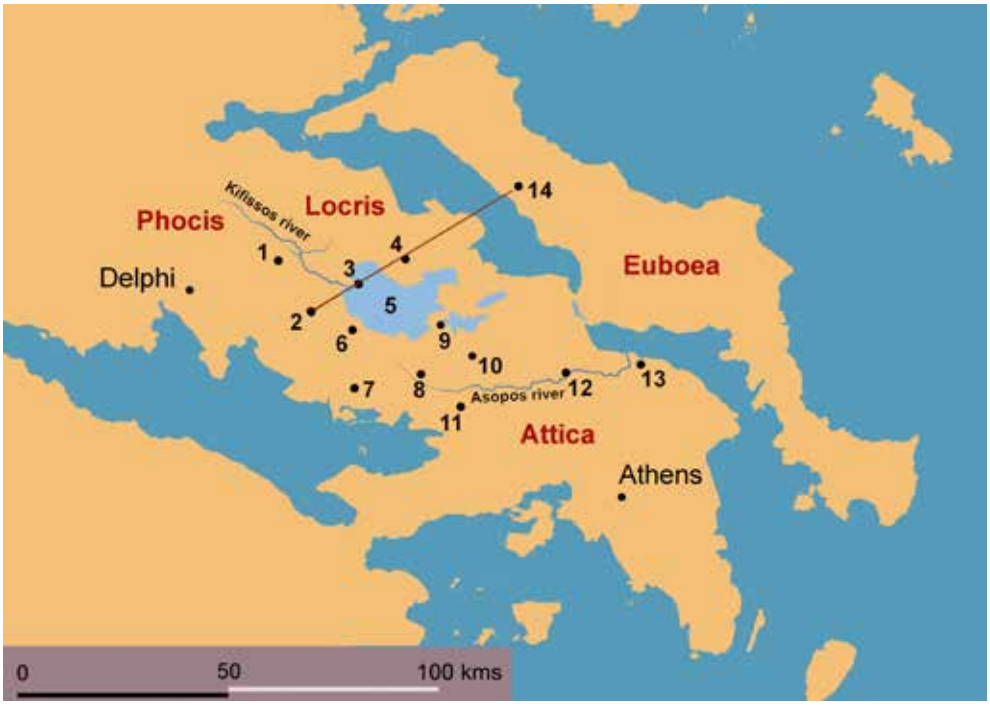
Addenda

GLOSSARY

ἀγωνοθέτης (*agonothetes*) = game organizer
βοιωτάρχες = captains, commanders in Boeotia
ἔθνος (*ethnos*) = nation
ἐκεχειρία = truce
ἐλαιοχρηστήριον = place of divination by use of oil
ἐπινίκειος ναός = a triumphal temple, to celebrate or to commemorate a victory
ἐπισαμότατος τόπος = lustrous, outstanding, most favourable locus
εὐεξία = welfare, well-being, physical vigour, good state of health
εὐρύχωρος = spacious
ἡμίεργος = unfinished, incomplete, *hemiteles*
θεωρός (pl. θεωροί, *theoroi*) = a herald, an envoy, sent to present an offering, to attend a ceremony or to announce the performance of games
θύρετρον (pl. θύρετρα) = doorways
ἱππάφεσις = start line
Ἱστορίαι = *Histories*
καθοσίωση = sanctity
καχεξία (*cachexia*) = feebleness, weak physical condition, bad disposition of the mind
μέσον θύρετρον = middle doorway
ναοποιός or νεωποιός (pl. ναοποιοί, νεωποιοί) = magistrate charged with the supervision of temple-building
Ὁμόνοια Ἑλλήνων = Concord among the Greeks
ὀρθοστάται πρὸς τὰ παραστάματα = orthostates adjacent to doorjambs
πέτρα σκληρά Λεβαδειακή = hard stone of Lebadea
πλευριαῖα θύρετρα = lateral doorways
πολύφωνος = manifold in expression, having many voices, polyphonic
προξενία (*proxenia*) = a relation or treaty of friendship between a state and a foreigner
πρόξενος (*proxenos*) = title of honour or privileged status of a foreigner residing in a city, acknowledged as a public guest by an act of the state
συμπολιτεῖες (*sympoliteies*) = confederacies
Τροφώνια Ὀλύμπια ἐν Λεβαδείᾳ = games or festivals at Lebadea addressing more than one recipients of honour, Trophonios and (most probably) Olympian Zeus
χρηστήριον = place of divination, oracle

MAP OF BOEOTIA AND NEIGHBORING AREAS

1. Chaironeia
2. Lebadea
3. Orchomenos
4. Hyettos
5. Lake Kopais
6. Koroneia
7. Thisbe
8. Thespiae
9. Ptoion
10. Thiva
11. Plataiai
12. Tanagra
13. Oropos
14. Makiston mountain (Kandili)



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