

On the Corinthian column
at the temple of Apollo *Epikourios* at Bassae

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To my family

Acknowledgments

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Introduction

The Greek temple, despite its persistent role as a paradigm in Western architectural discourse for centuries, poses substantial questions regarding its source of inspiration and the origin of some of its most essential architectural and typological elements.¹ Our current understanding relies primarily upon Pausanias and Vitruvius, who wrote from Roman and Hellenistic perspectives, upon archaeology, or upon such contemporary efforts to link philosophy with temple building as Robert Hahn's *Anaximander and the Architects* (2001). The temple of Apollo *Epikourios* at Bassae (5th B.C.) by Ictinus, located in a remote but sacred part of mountainous Arcadia, exhibits unique architectural peculiarities. The most prominent of these are the earliest known coexistence of the three orders and appearance of the Corinthian column, which make it a fundamental monument for scholarly investigation into the Greek temple's architectural elements and the aspirations of its builders and commissioners. For these reasons, the temple from the moment of its discovery in the late eighteenth century has attracted the attention of eminent figures such as G. A. Blouet,² Hallerstein,³ C. R. Cockerell,⁴ W. B. Dinsmoor,⁵ W. Hahland,⁶ G. Roux,⁷ U. Pannuti,⁸ K. Kourouniotis,⁹ N. Yalouris,¹⁰ F. A. Cooper,¹¹ and A. W. Lawrence.¹² However, despite the extensive archaeological investigation and scholarly attention, many questions related with the temple's appearance remain unanswered or debatable: the roof design, the role and nature of the Corinthian column and of the east adyton opening to name a few. This work focuses on the temple's immediate mythical context and its iconography, morphology, and articulation in relation with novel solar observations that point to a specific role of the Corinthian column, which together appear to order and to justify the temple's unique design, setting and proportions. While based on archaeological and historical evidence as well as on literary sources such as Pausanias, the ancient literature of Homer and Hesiod and other relevant myths,

¹ This essay is a revised version of my Master in Design Studies thesis submitted to Harvard University Graduate School of Design in 2018.

² Blouet, G.A., *Expédition scientifique de Morée*, Paris, 1831-1838.

³ Haller von Hallerstein, *Le temple de Bassae*, G.Roux, ed., Strasbourg, 1976.

⁴ Cockerell, C.R., *The temples of Jupiter Panhellenicus at Aegina and of Apollo Epicurus at Bassae*. London, 1860.

⁵ Dinsmoor, W.B., *The Architecture of Ancient Greece; an account of its historic development*. London, 1950.; Dinsmoor, W.B., "The Temple of Apollo at Bassae," in *Metropolitan Museum Studies*, Vol. 4, No. 2 (Mar., 1933), New York, pp. 204-277.

⁶ Hahland, W., "Der igtinische Entwurf des Apollontempels in Bassae," *Jahrbuch Des Deutschen Archäologischen Institut*, Vol. 63-64, 1948, pp. 14-39.

⁷ Roux, G., *L'architecture De L'Argolide Aux IVe Et IIIe Siècles Avant J.-C.* Paris: De Boccard, 1961.

⁸ Pannuti, U., *Il tempio di Apollo Epikourios a Bassai (Phigalia). Storia, struttura e problemi*, Roma: Accademia nazionale dei Lincei, 1971.

⁹ Kourouniotis, K., «Ἀνασκαφή ἐν Κορίνθῳ», *ΕφΑρχ* 1903 [1904], pp. 151-188.

¹⁰ Yalouris, N., «Φιγαλεία Βάσσα», *Ἔργον*, 1960, pp. 106-109.

¹¹ Cooper F.A., *The Temple of Apollo Bassitas*. Princeton, N.J.: American School of Classical Studies at Athens. 1992.

¹² Lawrence, A.W. & Tomlinson, R.A., *Greek architecture 4th (integrated)*, Harmondsworth, Middlesex, England; New York, U.S.A.: Penguin Books, 1983.

this study seeks to offer a comprehensive understanding for this remarkable temple by situating the building in its site, its surrounding landscape, and its cultic context with the Corinthian column as its central element.

1. Site consideration and mythological context

The temple of Apollo *Epikourios* stands a half mile above the ancient Arcadian city of Phigaleia in Peloponnese, 14 kilometers from the modern city of Andritsaina occupying a limestone plateau at the height of 1.131 meters, named Bassae (Fig. 1), on the southern slope of Mt. Kotilon and has been designated since 1986 a monument of World Cultural Heritage of UNESCO for its beauty and well - preserved condition. The *Description of Greece* from the famous 2nd century A.D. traveler and geographer Pausanias is the only ancient source of information in connection with the date of its construction, the architect and the architecture of the temple.¹³ During his visit in Arcadia, he passed by Phigaleia and visited the temple informing us of the existence of another smaller temple on top of Mt. Kotilon dedicated to Aphrodite and of a sacred spring to the south of the mountain slope (Figs. 2, 3).¹⁴ The Arcadian

¹³ Pausanias, *Description of Greece*, 8.41.7-9.

¹⁴ Pausanias 8.41.10.; On the Kotilon temples dedicated to Aphrodite and Artemis, Cooper, Frederick A. *The Temple of Apollo Bassitas. v. 1. The architecture* / by Frederick A. Cooper; with contributions by Nancy J. Kelly, Princeton, N.J.: American School of Classical Studies at Athens, 1992, pp. 59-66.

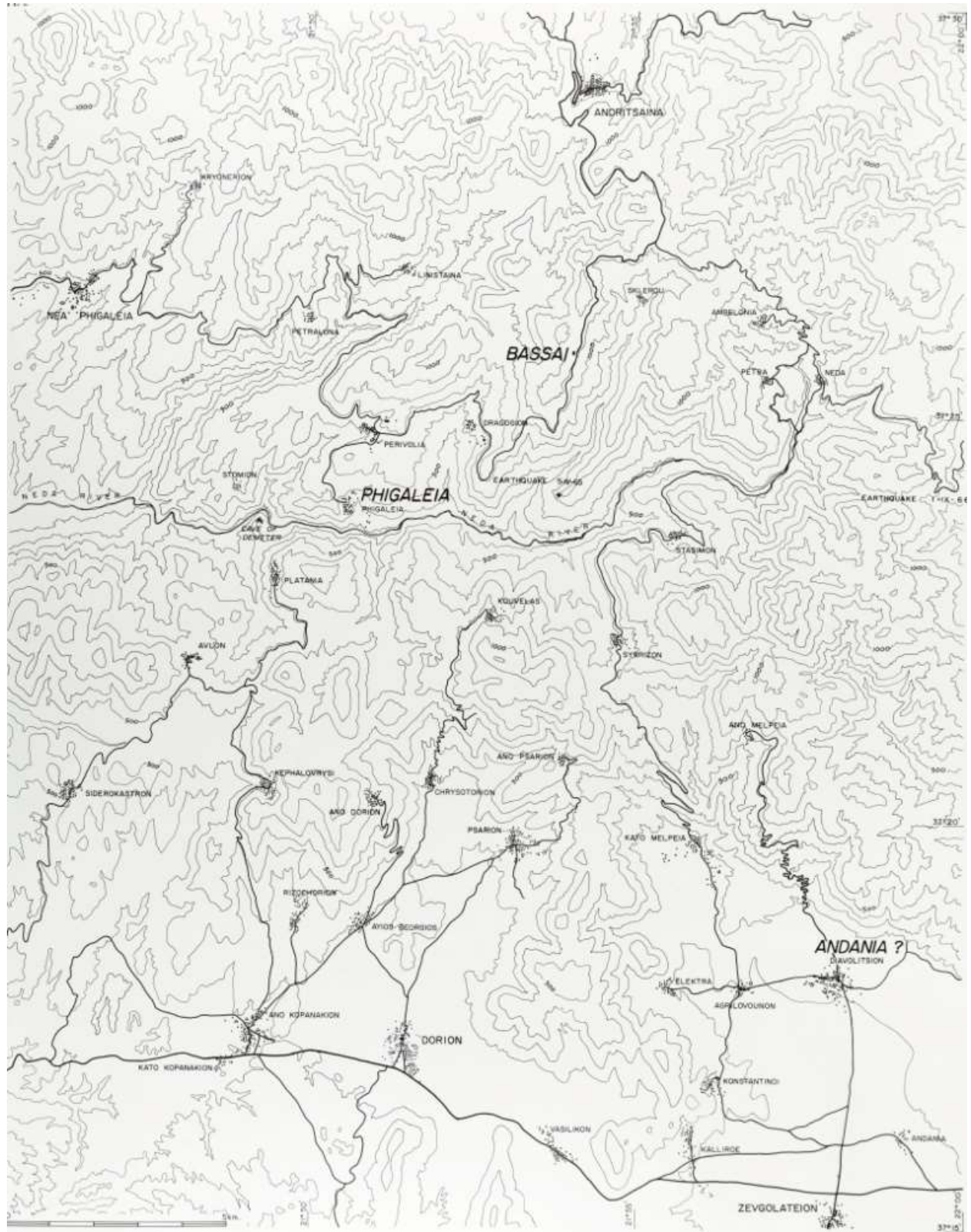


Figure 1. Topographic map of southwest Arcadia.

surrounding mountainscape is imposing and fully rewarding after the long and weary travel to the top of the mountain. The main views from Apollo's temple are east toward Mt. Lykaion and south to Mt. Ithome where the ground drops rapidly towards the Neda river,¹⁵ while the north and west views are obstructed by an adjacent slope. The Classical temple (Fig. 4) is sited 10 meters north of the ruins of the Archaic temple (7th B.C.), and shares with it a north-south orientation, the elongated plan, the east adyton doorway and other design 'anomalies', which according to Nancy Kelly reveals a strong religious conservatism at the site (Figs. 5, 6).¹⁶ The mountainous and remote Arcadia was indeed the epicenter of important myths, birthplace of many Olympians and center of early human settlement and religious activity. The Arcadians especially were believed to be indigenous to Arcadia, called for that reason by the rest of the Greeks as *acorn eaters* "βαλανηφάγοι" and *older than the moon* "προσέληνοι", to point out their antiquity as a race and the ancient origin of their customs and beliefs.¹⁷ In order to understand the overall religious backdrop and expectations of the inhabitants of Phigaleia from properly venerating the gods we will closely examine the two most archaic and preeminent beliefs of this part of Arcadia and their relation to Apollo, before we turn our attention to the temple itself, to see in which form these hopes were reaffirmed and played out in its design and expressed by the Corinthian column. On the one hand is the myth of Zeus' birth from Rhea on Mt. Lykaion and area of his youth period, on the other, the search and mourning of Demeter for her kidnapped daughter Persephone, strongly present in Phigaleia, the founding myth of the Eleusinian Mysteries.

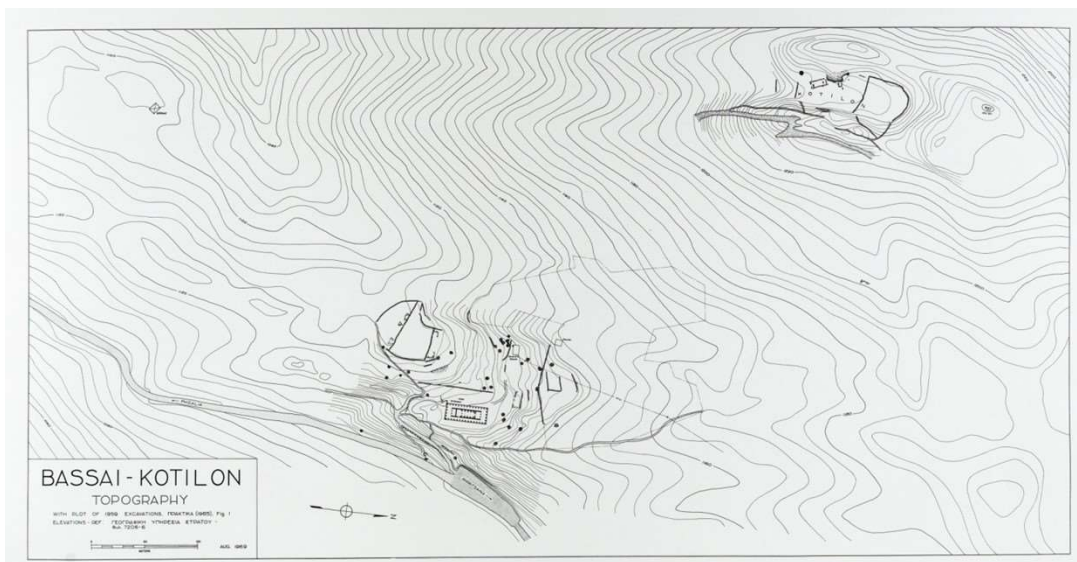


Figure 2. Topographic plan of the Bassae-Kotilon precincts.

¹⁵ Pausanias 8.41.2-6.

¹⁶ Kelly, Nancy, "The Archaic Temple of Apollo at Bassai: Correspondences to the Classical Temple", *Hesperia: The Journal of the American School of Classical Studies at Athens*, Vol. 64, No. 2, (April-June, 1995), The American School of Classical Studies at Athens, 1995, pp. 262-263.

¹⁷ Burkert, Walter. *Homo Necans: The Anthropology of Ancient Greek Sacrificial Ritual and Myth*. Berkeley: University of California Press, 1983, p. 84.

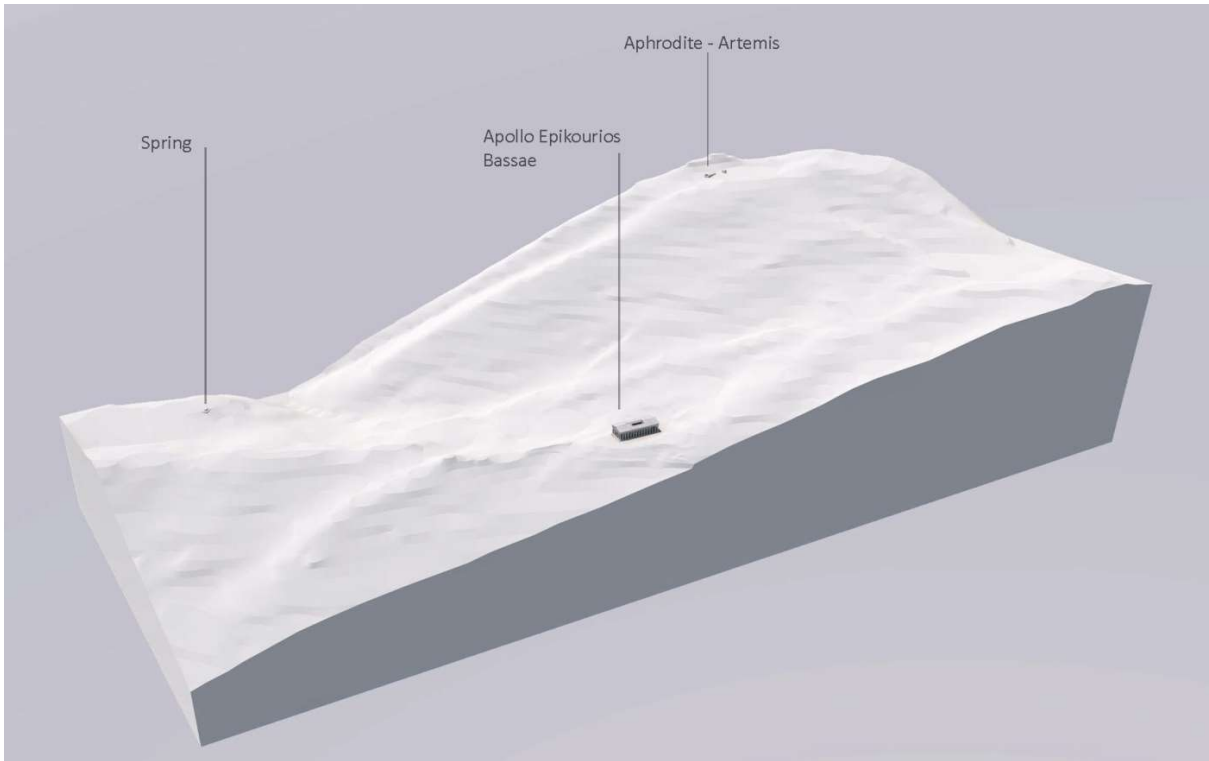


Figure 3. Digital model of the topographic plan of the Bassae-Kotilon precincts (see Figure 2).

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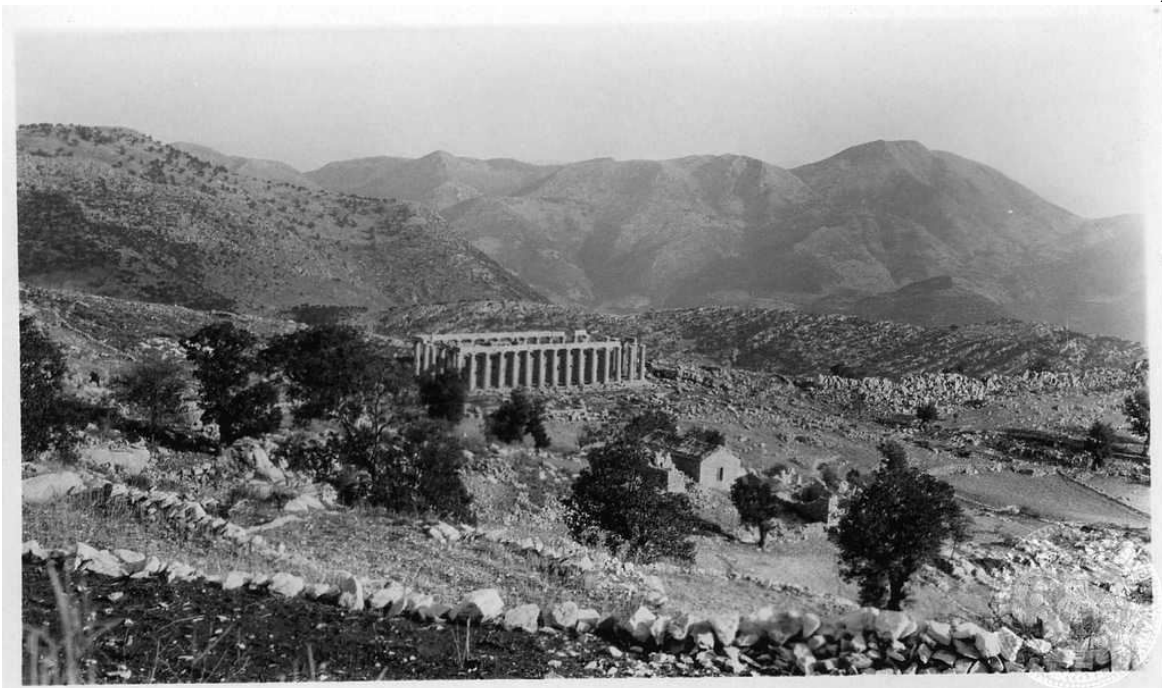


Figure 4. Bassae. Temple of Apollo, October 1931.



Figure 5. Aerial photo of the Archaic foundations. North at top.

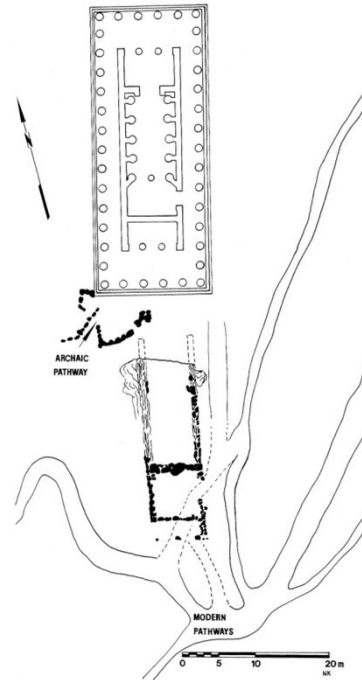


Figure 6. Modern and ancient pathways, Bassae sanctuary, based on the topographic plan, F. Cooper, 1992. IV. pl.5.

1.1. Mountain Lykaion and Zeus *Lykaios* sacrifice

In the heart of Arcadia looking east from the temple stands Mt. Lykaion, site of the birth and youth of Zeus. At the "Lykaia festival" of Zeus *Lykaios*, explained as Zeus the Bright or "wolf-Zeus" similar to Apollo *Lykeios*¹⁸, Plato informs us of an old and sacred ritual connected with human sacrifice, cannibalism and werewolves.¹⁹ According to the myth Lykaon the son of Pelasgus, slaughtered a young boy upon the altar, in one version Arcas,²⁰ introducer of agriculture in Arcadia and namegiver of the entire region and its inhabitants,²¹ who was the son of Lykaon's daughter Kallisto, and then mixed his entrails into the sacrificial meal for the gods.²² This profane act enraged Zeus who destroyed the newly-formed community and transformed Lykaon into a wolf, whereas another version of the tale informs us of the almost total destruction of mankind by Zeus with a flood.²³

¹⁸ Burkert 1983, p. 121.; On Apollo's *Lykeios* epithet see entry Apollo in Hornblower, Simon, and Spawforth, Antony. *The Oxford Companion to Classical Civilization*. Oxford; New York: Oxford University Press, 1998, p. 51, s.v. Apollo.

¹⁹ Burkert 1983, p. 84.; Plato *Republic* 565d.

²⁰ Burkert 1983, p. 86.; Arcas is identified as one of the figures at the Bassae pronaos metopes (see Pronaos and Opisthodomos Metopes section, below)

²¹ Pausanias 8.3.1-8.4.1.

²² Burkert 1983, pp. 86-87.

²³ Burkert 1983, p. 86.

In his book *Homo Necans* (1983), Walter Burkert unfolds how the sacrificial ritual on Mt. Lykaion was connected with initiation rites of young men into warrior-bands upon entering manhood, a closed male realm that was complemented by a female one of consecrated women. The group of women entered the cave where Rhea bore Zeus to attend the newborn life, as part of the distribution of societal roles and thus: "... *the polarity of both sexes bound together the course of life and assured perpetuity in the face of death*".²⁴ Burkert also informs us that in an analogous mythical sacrifice ritual, that of Thyestes and Harpagos, the crime caused the sun to reverse its course, assuming a cosmogonic function and relates it with the transition of night into day-the Greek conception of time that corresponds to the dark and light sides of sacrifice.²⁵ The Lykaion sacrifice is also connected with events of celestial significance, with Zeus recognized there as a weather god and his priests as weather 'magicians'.²⁶ Pausanias offers an interesting account of such a weather ritual at a spring named Hagno, one of the three nymphs that reared Zeus²⁷:

[8.38.3-4] The nymphs, by whom they say that Zeus was reared, they call Theisoa, Neda and Hagno. After Theisoa was named a city in Parrhasia; Theisoa to-day is a village in the district of Megalopolis. From Neda the river Neda takes its name; from Hagno a spring on Mount Lycaeus, which like the Danube flows with an equal volume of water in winter just as in the season of summer. Should a drought persist for a long time, and the seeds in the earth and the trees wither, then the priest of Lycaean Zeus, after praying towards the water and making the usual sacrifices, lowers an oak branch to the surface of the spring, not letting it sink deep. When the water has been stirred up there rises a vapour, like mist; after a time the mist becomes cloud, gathers to itself other clouds, and makes rain fall on the land of the Arcadians.

Pausanias, *Description of Greece*, translated by W. H. S. Jones

The invocation of rain from Zeus²⁸ aims to prevent the famine caused by drought that awakens the savage, dark side, in human nature, eventually destroying civilization. On Lykaion Mountain we see the attempt to establish a beneficial cosmic and social order for human society, along with the portrayal of

²⁴ Burkert 1983, pp. 91-92.

²⁵ Burkert 1983, pp. 105-106.

²⁶ Hornblower, Simon, and Spawforth, Antony *op. cit.* p. 786, s.v. Zeus.; Burkert 1983, p. 114.; Burkert, Walter. *Greek Religion*. Cambridge, Mass.: Harvard University Press, 1985, pp. 120, 266.

²⁷ Pausanias 8.38.3-4.

²⁸ Burkert 1985, p. 126.

Zeus as guarantor of natural order perpetuated by the community through the acceptance of established societal roles at the sacrificial tripod and Rhea's cave.

The antiquity of these myths and rituals has been confirmed by the Mt. Lykaion Excavation and Survey Project that has made a complete map of the area.²⁹ The excavation shows a continuation of cult practice from at least the Mycenaean period.³⁰ Some of the most important findings include human skeletal remains potentially of a human sacrifice within the great sacrificial open-air ash altar,³¹ of a young boy tentatively dated 3,000 year-old (1,100 B.C.),—where before it on the east stood two pillars topped with gilded eagles³²—, further information regarding the location and perimeter of the precinct of Zeus— which was believed that no shadows were cast in it and anyone who entered should die in a year's time³³ —, the identification of a major building phase in relation to the facilities for the athletic games at the lower sanctuary: "*which likely corresponded with the founding of Megalopolis*",³⁴ and a Minoan rock-crystal lentoid sealstone, probably from Crete, depicting a bull likely LM II in date.³⁵ These findings could indicate interaction with the other mythic birthplace of Zeus in Mt. Ida in Crete and generally the Minoan culture, further suggested by the 'Griffin Warrior' burial from Pylos (1,550-1,450 B.C.).³⁶ The games along with the sacrificial and mythic elements also show a striking resemblance with nearby (22 miles) Olympia³⁷ that could indicate this place as their origin.³⁸ Olympia, like Mt. Lykaion, also contains initiatory features similar to Crete, the rival birthplace of Zeus.³⁹ On Mt. Lykaion part of the Parrhasia

²⁹ Romano D. G. and Voyatzis M. E., "Mt. Lykaion Excavation and Survey Project, Part 1: The Upper Sanctuary". in *Hesperia: The Journal of the American School of Classical Studies at Athens*, Vol. 83, No.4 (October-December 2014), pp. 569-652.; Romano D. G. and Voyatzis M. E. "Mt. Lykaion Excavation and Survey Project, Part 2: The Lower Sanctuary" in *Hesperia: The Journal of the American School of Classical Studies at Athens*, Vol. 84, No. 2 (April-June 2015), pp. 207-276.

³⁰ Romano D. G. and Voyatzis M. E. 2014, pp. 628-632.

³¹ Lavelle, Moira, *David Roman Reflects on Mt. Lykaion Discovery*, American School of Classical Studies at Athens, August 17, 2016.

³² Pausanias 8.38.7.

³³ Pausanias 8.38.6, translated by W. H. S. Jones: "Among the marvels of Mount Lycaeus the most wonderful is this. On it is a precinct of Lycaean Zeus, into which people are not allowed to enter. If anyone takes no notice of the rule and enters, he must inevitably live no longer than a year. A legend, moreover, was current that everything alike within the precinct, whether beast or man, cast no shadow. For this reason when a beast takes refuge in the precinct, the hunter will not rush in after it, but remains outside, and though he sees the beast can behold no shadow. In Syene also just on this side of Aethiopia neither tree nor creature casts a shadow so long as the sun is in the constellation of the Crab, but the precinct on Mount Lycaeus affects shadows in the same way always and at every season."

³⁴ Romano D. G. and Voyatzis M. E. 2015, pp. 263-264.

³⁵ Romano D. G. and Voyatzis M. E. 2014, pp. 616-617.; Lobell, Jarrett A., "Surprise Finds on Wolf Mountain", *from the trenches*, Vol. 61, Number 3, May/June 2008, by the Archaeological Institute of America.

³⁶ Davis Jack. L., and Stocker Sharon R., "The Lord of the Gold Rings: The Griffin Warrior of Pylos." *Hesperia: The Journal of the American School of Classical Studies at Athens*, Vol. 85, No.4 (October-December 2016), pp. 627-655.

³⁷ Burkert 1983, pp. 93-94, 99-103.

³⁸ The two sites present several similarities, they were sacred to Zeus, had ash altars and held athletic contests, while the: "*evidence further suggests that ritual activity was occurring at the ash altar on Mt. Lykaion centuries before it began at Olympia, while lies only 22 miles away.*", Romano D. G. and Voyatzis M. E. 2014, p. 631.

³⁹ Hornblower, Simon, and Spawforth, Antony, *op. cit.*, p. 788, s.v. Zeus.

region, alternatively named Sacred Peak or Olympus, there was indeed a place called Cretea on the left of the grove of Apollo *Parrhasian*.⁴⁰ The Arcadians claimed that Crete, believed to be the place where Zeus was reared, was here and not the island.⁴¹ The relation of the god Apollo to the site of Zeus' birth and coming into adulthood is further attested by the presence on the east part of the mountain range of a sanctuary dedicated to Apollo the *Parrhasian*, also called *Pythian*.⁴² Moreover, a city in this area was called, Theisoa, one of the three nymphs that reared Zeus and name of one district in Megalopolis, the later major urban center of the Arcadians, presumably inhabited by transplanted population from Parrhasia region.⁴³ From these facts we see that Apollo was part of the events on Mt. Lykaion.

Three elements allude to a close affinity of Apollo *Epikourios* with Zeus *Lykaios*: his relation to Apollo *Parrhasian*, the dedication of the Apollo *Epikourios* bronze statue from Bassae in front of the Zeus *Lykaios* precinct in Megalopolis and the figure of Pan important at Bassae-Kotilon, Megalopolis and Mt. Lykaion. Pausanias informs us of a sacrifice of a boar at the marketplace of Megalopolis for Apollo *Epikourios* that was carried in procession under the music of the flute at the sanctuary of Apollo *Parrhasian* on Mt. Lykaion where the victim was immediately consumed.⁴⁴ According to Madeleine Jost, in this way an urban sacred place is closely linked with another rural sanctuary whose god evokes the antiquity of the region.⁴⁵ Furthermore, in Megalopolis' marketplace (agora), Pausanias found the bronze statue of Apollo from the Bassae temple together with a small one of the Mother of the Gods (Rhea) in front of the *Lycaean* Zeus enclosure, and in it saw a statue of Pan *Sinoeis*.⁴⁶ In regards to the statue of Apollo, modern scholarship argues for the original position to have been either inside or outside the temple at Bassae, before it was brought to Megalopolis by the Phigaleians as a contribution to the foundation of the new city (370/69 B.C.).⁴⁷ The figure of Pan, god of nature, fertility and spring, the mountain wilds and sexuality, should not be overlooked, having neighbouring sanctuaries with Zeus on Mt. Lykaion. For Jost, the epithet *Sinoeis* of a Pan which comes from the Bassae-Phigaleia region, may show a contamination with a cult that originated from that region;⁴⁸ and she sees this sanctuary as a transposition of the complex cult of Zeus *Lykaios* on Mt. Lykaion, which is an instance of an interesting

⁴⁰ Pausanias 8.38.2

⁴¹ Pausanias 8.38.2.

⁴² Pausanias 8.38.8.

⁴³ Pausanias 8.38.3.

⁴⁴ Pausanias 8.38.8.; Jost Madeleine, "The Distribution of Sanctuaries in Civic Space in Arkadia", in Alcock, Susan E, and Osborne, Robin. *Placing the Gods : Sanctuaries and Sacred Space in Ancient Greece*. Oxford; New York: Clarendon Press; Oxford University Press, 1994, p. 229.; Nilsson, M. P. *Cults, Myths, Oracles, and Politics In Ancient Greece ; with Two Appendices, the Ionian Phylae, the Phratries*. Göteborg: P. Åströms, 1986, p. 19.

⁴⁵ Jost 1994, p. 229.

⁴⁶ Pausanias 8.30.2-4, 8.41.9.

⁴⁷ Cooper, Frederick A., *The Temple of Apollo at Bassai: A Preliminary Study*. New York: Garland Pub., 1978, p. 10.

⁴⁸ Jost 1994, p. 227.

phenomenon of the period, the founding of ‘doublets’ of the most sacred places of the territory.⁴⁹ Inscriptions, literary references and votive offerings attest that there was a cult of Pan at the Bassae-Kotilon area.⁵⁰ Pan Bassais has a leading role in a lost play by Aeschylus titled *Kallisto*, known through a fragment.⁵¹ The theme of the play would have been based on the relevant myth, of Zeus (Zeus Lykaion) seducing the Arcadian nymph, Kallisto, daughter of Lykaion. The child of Kallisto and Zeus was Arcas the mythical ancestor of all Arcadians. According to Cooper, the characters and the Arkadian setting of the myth: "*point to the locale of Bassai.*"⁵² Pan Bassais is thus linked to Zeus *Lykaios* and to the story of Arcas who appears prominently at the iconography of Apollo’s temple at Bassae.

Phigaleia itself was linked with Mt. Lykaion through the Neda river flowing near the city, one of the two female rivers in Greece, named after one of the three nymphs that nursed the infant Zeus. Deified rivers in ancient Greece knitted together several sites of mythical events through their source, following their disappearance and reappearance across the landscape, in the form of natural fountains-waterfalls and springs, which defined proper areas of worship and sanctuaries. The source of the Neda in Pausanias’ times was identified on Mt. Cerausius, part of Mt. Lykaion; and at a site where the river was the nearest to Phigaleia, the young men of the city cut off and threw their hair in honor of it.⁵³ Strabo identifies Neda’s source also to a spring on Mt. Lykaion. The spring was believed to have been produced by Rhea after she has given birth to Zeus in order for her to have water to bathe.⁵⁴ Flowing just behind the city of Phigaleia, Lymax, a smaller river that falls into Neda, got its name from the cleansing of Rhea. According to the myth, after Rhea gave birth to Zeus the nymphs threw the refuse products of her travail into it.⁵⁵ A spring of water on Mt. Kotilon was related to the river Lymax by being designated as the potential source of the stream.⁵⁶ At the spot where Lymax and Neda streams met there was a very ancient sanctuary of the Oceanid Eyrynome,⁵⁷ third bride of Zeus and mother of the Graces/Charites⁵⁸, identified as we will see at Apollo’s temple pronaos metopes as a female triplet interchangeable with the three Horai: Thallo, Auxo and Carpo and the three Nymphs: Neda, Hagno and Theisoa.

The Hagno spring at the site of the weather ritual on Mt. Lykaion⁵⁹ which had the same water flow in winter and summer, the Theisoan city in Parrhasia and later on a district in Megalopolis, and the Neda-

⁴⁹ Jost 1994, pp. 226-7.

⁵⁰ Cooper, *vl. The architecture*, 1992, p. 65.

⁵¹ Cooper, *vl. The architecture*, 1992, p. 65.

⁵² Cooper, *vl. The architecture*, 1992, pp. 65-66.

⁵³ Pausanias 8.41.3.

⁵⁴ Strabo, *Geography* 8.3.22.

⁵⁵ Pausanias 8.41.2.

⁵⁶ Pausanias 8.41.10.

⁵⁷ Pausanias 8.41.4-6.

⁵⁸ Hesiod, *Theogony* 905-910.

⁵⁹ For survey drawing of the Hagno fountain and its location at the sanctuary at Mt. Lykaion, Romano D. G. and Voyatzis M. E. 2014, pp. 630-631 Figure 35, and p. 574 Figure 2.

Lymax rivers at Phigaleia are sites connected through the caretakers of Rhea and the young Zeus, the three Nymphs: Hagno, Theisoa and Neda.⁶⁰ Along with the close relation of Apollo *Epikourios* with Apollo *Parrhasian* and the Bassae temple's positioning, plan and clearly privileged views towards Mt. Lykaion peaks and Mt. Ithome,⁶¹ they render possible that the temple linked sacred mountain peaks with recurring themes such as: the annual rebirth of nature, fertility-birth concerns and the coming-of-age of the young. Especially, the annual rebirth of nature and fertility were central in the other major cult of this area and Phigaleia that of Demeter and Persephone-Kore.

1.2. Demeter's grief for the loss of Persephone-Kore

To grasp the importance of religious continuity, the power of tradition and the nature and horizon of Phigaleians' beliefs we will turn our attention to the second major myth deeply rooted in the city, that of Demeter and Persephone-Kore. These rites, together with those on Mt. Lykaion, set the background upon which an explanation can be given for introducing the Corinthian order and its column at a temple dedicated to Apollo/Helios, specifically at this part of Greece, and in turn help to decipher its meaning and importance.

From the *Homeric Hymn to Demeter* and Hesiod's *Theogony* we are informed about the abduction of Persephone, the daughter of Zeus and Demeter, by Hades, lord of the underworld, while she was gathering flowers from a meadow with a company of girls among them Athena and Artemis, as young girls generally play in the choruses of Artemis. Demeter, having heard the cry of her daughter, started in agony to search for her and eventually with the help of Hekate, Pan and Helios (Sun) learned of the abduction of her daughter by Hades. The loss of Kore to the underworld led to the mourning of Demeter in a cave, an act that brought devastation to the land; the oxen drew the plough in vain, nothing germinated and nothing grew. Then, Zeus intervened in order to stop the destruction of humankind and the loss of their offerings to the gods and goddesses. In the end a fair agreement was reached, whereby the daughter would stay as bride of Hades one third of the year in the underworld and then ascend to spend the remaining two thirds with her mother:

[459] This is how Rhea of the glossy veil addressed her: "Come, my child, heavy-blooming, wide-sounding Zeus summons you to join the families of the gods, and he promised to give you what privileges among the immortal gods you may wish. And he gave his approval that your daughter, in the course of the year, should go for a third of it down to the misty dark, spending the

⁶⁰ Pausanias 8.38.3.

⁶¹ Another area in Messene that claimed that the Kouretes brought the infant Zeus in order to get washed from the nymphs Ithome and Neda., Pausanias 4.33.1.

other two thirds with you and the other immortals. [This is how he said it] would be, and he confirmed it with a nod of his head. So go, my child, do what he says, and don't go too far by maintaining your wrath uninterrupted against the dark-cloud son of Kronos. Quickly make the life-giving produce grow for humankind"

Homeric hymn to Demeter, translated by M. L. West

The myth was understood since antiquity as an allegory of the rebirth of nature when: "*the earth blooms with spring flowers*"⁶². It pertained to the cycle of corn-wheat seed which must descend into the earth so that from death new fruit may germinate. According to Burkert, the myth also found a double existence between the upper world and the underworld where: "...*a dimension of death is introduced in life, and a dimension of life in the death.*"⁶³

This pan-Hellenic myth however had a special importance for the Phigaleians who worshiped not far from their city an old image of Demeter, surnamed the Black, inside a cave where it was believed that the great goddess hid herself during her mourning (Fig. 1). Pan, already encountered at Bassae and Mt. Lykaion, together with Helios-Sun appear as assistants and helpers of Zeus in Persephone's abduction myth. Here again, Pan is portrayed as an important informant of Zeus in the soothing of Demeter. The dark and gloomy consequences that the inhabitants would suffer if Demeter were not properly worshipped are clearly expressed by the Delphic oracle. Phigaleia was surrounded by mountains, to the left by Mt. Kotilon—Bassae being a part of it—, and to the right by Mt. Elaïus.⁶⁴ According to Pausanias:

[8.42.1] The second mountain, Mount Elaïus, is some thirty stades away from Phigalia, and has a cave sacred to Demeter surnamed Black. The Phigalians accept the account of the people of Thelpusa about the mating of Poseidon and Demeter, but they assert that Demeter gave birth, not to a horse, but to the Mistress, as the Arcadians call her.

[8.42.2] Afterwards, they say, angry with Poseidon and grieved at the rape of Persephone, she put on black apparel and shut herself up in this cavern for a long time. But when all the fruits of the earth were perishing, and the human race dying yet more through famine, no god, it seemed, knew where Demeter was in hiding,

[8.42.3] until Pan, they say, visited Arcadia. Roaming from mountain to mountain as he hunted, he came at last to Mount Elaïus and spied Demeter, the state she was in and the clothes she wore.

⁶² Burkert 1985, p. 160.

⁶³ Burkert 1985, pp. 159-161.

⁶⁴ Pausanias 8.41.7.

So Zeus learnt this from Pan, and sent the Fates to Demeter, who listened to the Fates and laid aside her wrath, moderating her grief as well. For these reasons, the Phigalians say, they concluded that this cavern was sacred to Demeter and set up in it a wooden image.

[8.42.4] The image, they say, was made after this fashion. It was seated on a rock, like to a woman in all respects save the head. She had the head and hair of a horse, and there grew out of her head images of serpents and other beasts. Her tunic reached right to her feet; on one of her hands was a dolphin, on the other a dove. Now why they had the image made after this fashion is plain to any intelligent man who is learned in traditions. They say that they named her Black because the goddess had black apparel.

[8.42.5] They cannot relate either who made this wooden image or how it caught fire. But the old image was destroyed, and the Phigalians gave the goddess no fresh image, while they neglected for the most part her festivals and sacrifices, until the barrenness fell on the land. Then they went as suppliants to the Pythian priestess and received this response—:

[8.42.6] Azanian Arcadians, acorn-eaters, who dwell in Phigaleia, the cave that hid Deo, who bare a horse, You have come to learn a cure for grievous famine, Who alone have twice been nomads, alone have twice lived on wild fruits. it was Deo who made you cease from pasturing, Deo who made you pasture again After being binders of corn and eaters of cakes, Because she was deprived of privileges and ancient honours given by men of former times. And soon will she make you eat each other and feed on your children, Unless you appease her anger with libations offered by all your people, And adorn with divine honors the nook of the cave.

Pausanias, *Description of Greece*, translated by W. H. S. Jones

So ancient was the veneration of the Great Goddesses, that in Phigaleia itself the myth of Demeter and Persephone according to Burkert may date from as early as the Bronze age.⁶⁵ The tale and the oracle's response offer us important information to understand some of the concerns of the Phigaleian community, the commissioners of the temple of Apollo *Epikourios*. They are depicted as being wanderers twice, not able to have the settled inhabitation of agriculture and local pasturing; both depended on the fertility of the land. In their past due to climatic reasons, they have faced drought and famine that disrupted social order. The oracle also clearly relates the Black Demeter with the story of Persephone, warning the Phigaleians that if the image is not properly worshipped, they will not only suffer once more a barren, infertile land, but the effect of the goddess passive stance. By withholding and not allowing the fruits of

⁶⁵ Burkert 1985, p. 6.

the land to rise, she awakens severe hunger; that will make them eat each other and their children. Actions that other gods and goddesses do not accept, causing in the past the severe punishment of Zeus, who did not hesitate to destroy the human community on Mt. Lykaion and to bring the near extinction of humankind through a deluge, another traumatic memory of the past. Whereas the appeasement of the communal concerns over crops fails on Mt. Lykaion is directed to Zeus -the rainmaker- in Phigaleia it is directed towards Demeter -the fruitgiver-.

The Demeter and Persephone-Kore story, fertility symbolism and the new religious and philosophical ideas of the period that were gradually focusing more on the fate of the individual's soul, were expressed in their Mysteries. During her search, Demeter passed from Eleusis and founded the famous Eleusinian Mysteries, which revolved around procreation, sacred ritual ploughing of the fields and the rebirth of nature. Centers of Demeter and Persephone worship—alternatively named Despoina, Mistress, Kore the Saviour—can be found in the tradition of Eleusis in Arcadia and Messenia,⁶⁶ many of them in the adjacent Bassae area such as in Lykosura,⁶⁷ Thelpusa,⁶⁸ Megalopolis.⁶⁹ In Andania at a place called the Carnasian Grove the Great Goddesses were worshiped in the same fashion as at the Eleusinian Mysteries, for Pausanias tells us: "*I may not reveal the rites of the Great Goddesses, for it is their mysteries which they celebrate in the Carnasian grove, and I regard them as second only to the Eleusinian in sanctity.*"⁷⁰

Demeter is called in prayers alongside Chthonic Zeus by the peasant at seed time and also at the annual harvest festival in honor of the goddess, as the one filling the barn with corn, the center of her power and favor. Depictions show her among wreaths of ears of corn, some holding them in her hand. Also Demeter's son Ploutos, Wealth, sired on a thrice-ploughed corn field, is identified with wealth in the form of corn and the treasury, *thesavros*, the granary.⁷¹ Apollo too has power over good harvest as the one who averts dangers, keeps away the mice as *Smintheus*, locusts as *Parnopios*, and corn rust as *Erysibios*.⁷² Furthermore, Apollo's birthday falls on the seventh day of the month of Bysios in the spring, which signals Apollo's return to power,⁷³ presumably connected with the observation of the importance of the sun's rays and warmth in the growing-blossoming of plants and the fertility of land. Apollo, Zeus and Demeter are the ones that bring the blessings of rich harvest, healthy children and civic order, according to Burkert: "*...bad harvests and infertility of the soil, diseases of men and cattle, bareness of women and abnormal offsprings, civil wars and defeat by a foreign army...*" all these can be prevented by sacrifice

⁶⁶ Burkert 1985, p. 161.

⁶⁷ Pausanias 8.37.1- 8.38.2.

⁶⁸ Pausanias 8.25.2-11.

⁶⁹ Pausanias 8.31.1-8.

⁷⁰ Pausanias 4.33.4-6., translated by W. H. S. Jones, H. A. Ormerod.

⁷¹ Burkert 1985, p. 159.

⁷² Burkert 1985, p. 265.

⁷³ Burkert 1983, p. 125.

and prayer by engaging the appropriate god for help: "...*Demeter for the fruits of the field, Apollo against pest and illness, and Zeus who joins together against civic discord.*"⁷⁴

The examination of Apollo temple's surrounding sacral landscape reveals the recurring concern with the weather conditions and water supply in relation to the fertility of flora and fauna. This is not surprising, for mountainous communities had to sustain themselves from the sparse and small arable land plots mainly on artificial terraces on the mountains slopes, supplementing their scarce provisions of cereals with game from their main activity of pasturing and fruits offered by nature. This fragile balance was also accentuated by the lack of immediate and easy communication with the sea trade for cereals. Indeed, the failure of even one crop could make the difference between life and death.

The relationship of Apollo and Artemis with Demeter and Zeus is formalized later at Megalopolis' marketplace. To the east of the portico called of "Aristander's", we find a sanctuary of an enthroned Zeus the Saviour with Artemis the Saviour and Megalopolis standing next to him, and to the west of the portico an enclosure to the Great Goddesses, Demeter and the Maid the Saviour, with a relief at the entrance depicting Artemis, Asclepius and Health.⁷⁵ Crucial elements here are immediately connected with the myths and rituals we have examined and are also found in the Bassae temple's iconography. These are the images found in relation to the statues of the Goddesses that depict the scene of Persephone gathering flowers with Athena and Artemis, a statue of Heracles next to Demeter and before it a table engraved with reliefs of two Seasons, Pan with pipes, and Apollo playing the harp, with an inscription claiming that they are among the first gods. Also depicted on the table are Nymphs, among them Neda carrying the infant Zeus, Hagno holding a water pot in one hand and a bowl in the other, and Anchirroe and Myrtoessa who carry water pots with water pouring out of them.⁷⁶ Finally, within the enclosure of the mysteries of the Great Goddesses, amongst other gods we find Helios-Sun surnamed the Saviour, who as we shall see has great significance for the temple's design.⁷⁷

This concentrated composition around the agora in Megalopolis seems to go beyond being simple juxtapositions of deities in shrines solely for the purposes of syncretism by Epaminondas, founder of Megalopolis, a generation after the completion of the re-building of the temple at Bassae. These late Classical architectural compositions represent the beliefs of the transplanted inhabitants from the various regions around Megalopolis. According to Jost, they do not try to replace or rival the sanctuaries of the countryside, but rather recognize their prestige and importance for the town. In short, they are in no way

⁷⁴ Burkert 1985, p. 264.

⁷⁵ Pausanias 8.30.10-8.31.1.

⁷⁶ Pausanias 8.31.2-4.

⁷⁷ Pausanias 8.31.7.; For Helios-Apollo as the one imparting air's healthfulness by adapting in each season his course thus presented as rightful father of Asclepius, Pausanias 7.23.8.

just an abstract or arbitrary agglomeration of deities.⁷⁸ At the time of the Bassae temple construction, starting around 429 B.C. and completed in 400 B.C., the syncretic religious processes present in Megalopolis may have already been present, fostering the appearance of the novel elements of the Classical temple including the Corinthian column, based however heavily on the guidelines of the archaic one that it replaced, thus guaranteeing religious continuity.

2. The Temple of Apollo *Epikourios* at Bassae

It was in the 18th century that the temple became the subject of archaeological and academic interest during the advent of European Neo-Classicism. The first to visit the temple was the French architect J. Bocher (1765),⁷⁹ however the systematic excavation of the site started much later in 1811-1812 with ‘the Society of Travellers’, a group of individuals from various nationalities and interests: treasure hunters, antiquarians, archaeologists and architect-scholars of Neo-Classical architecture, including among others: J. Foster, C. R. Cockerell, C. H. Hallerstein, G. Gropius. These expeditions created valuable drawings of the temple that depict many lost architectural elements, among them the Corinthian capital (Fig. 7), however the Ionic frieze was removed from the temple and bought by the British Museum in 1815, where it still resides.

The construction date is placed between 429 to 400 B.C.⁸⁰ replacing an existing archaic temple on the same site. It is a Doric, peripteral, hexastyle temple with the long side having fifteen columns, instead of the thirteen that we should expect based on the Classical proportions of the period. A sacrificial altar, which commonly accompanies the Greek temple, has not been found at the site.⁸¹ The temple's elongated plan, eastern adyton door/opening and its unusual north-south orientation have their origin in the archaic late 7th B.C. temple whose foundations as we have seen were found slightly south of the existing temple.⁸² The Classical temple presents a number of unusual features which appear to refer to both archaic practice and to new forms of architectural articulation. It is Doric on the exterior, but houses an Ionic engaged colonnade on the interior, as well as the earliest known use of the Corinthian capital, in a single free-standing column centered at the back of the cella (Figs. 8, 9, 10).⁸³ The existence of one or three Corinthian columns has been a major dispute fueled by the unclear testimonies of the first discoverers of

⁷⁸ Jost 1994, p. 228.

⁷⁹ Cooper, v.I. *The architecture*, 1992, p. 13 note 9.

⁸⁰ Cooper, v.I. *The architecture*, 1992, pp. 5, 163.; Cooper 1978, pp. 4-5, 74-75.

⁸¹ Cooper, v.I. *The architecture*, 1992, pp. 6, 69.

⁸² Kelly 1995, pp. 232-233, 263.

⁸³ Cooper 1978, p. 151.

the temple and the fate of the Corinthian(s) capitals that were found at the site.⁸⁴ This study follows the commonly accepted position of one Corinthian column. The existence of a 'triplet' would not diminish the uniqueness of the combination of the Ionic and Corinthian orders in the interior, or the importance of the Corinthian order placed at the back of the cella. The Ionic colonnade is unusual in that it is actually engaged piers and may indicate an influence from Olympia since the Heraion there exhibits alternate engaged columns in the cella and preserved its archaic origins up to the time of Pausanias who noted a surviving column of wood. Other unusual elements at Bassae are the Ionic capitals, and the composite



Figure 7. Reconstruction drawing of the Corinthian capital now lost based on the figure of the capital by Haller.

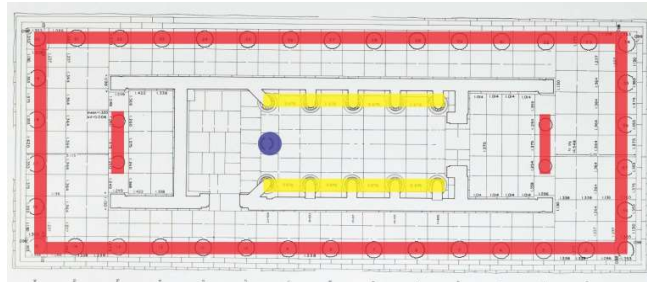


Figure 8. Distribution of the orders' columns in Bassae temple plan with ideal dimensions: Doric-red, Ionic-yellow, Corinthian-blue.

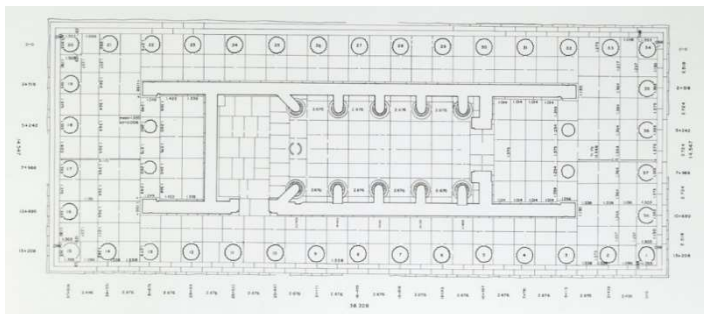


Figure 9. Plan of the temple of Apollo at Bassae with ideal dimensions.



Figure 10. Bassae, Temple of Apollo Epicurius, interior from north.

⁸⁴ On the hypothesis of three Corinthian columns, Dinsmoor 1933, p. 212.; Cooper 1978, pp. 151-153.; Coulton, J., *Ancient Greek architects at work : Problems of structure and design*. Ithaca, N.Y.: Cornell University Press, 1977, p. 128.

use of materials for the exterior guttae⁸⁵, the interior columns and interior frieze supported by the Ionic colonnade, with the last two elements suggesting that the temple might have been hypaethral.⁸⁶ Other puzzling distinctive elements are the diagonal orientation of the southernmost spur walls ending in Ionic half-columns, the continuity and visual communication of the adyton to the cella (Fig. 10), the continuity or not of the cella's pavement, and the adyton's irregular pavement.⁸⁷ Many of these 'innovations' are attributed to the work of an ingenious architect, non other than Ictinus.

Ictinus, who Pausanias and most scholarship today credits as the mind behind Bassae plan⁸⁸ and this temple as his last work, was already an accomplished architect involved in the most important buildings of his time: the Parthenon built together with Callicrates in Athens (447-432 B.C.) and the Telesterion, the great hall of the Eleusinian Mysteries in Eleusis. This raises the question why Ictinus, among the best architects of his time, agreed to design and build a temple for a pastoral town on a mountaintop, far away from the major political, intellectual, artistic and economic centers of his time, and on top of that decided to introduce the core element of the Corinthian order? We are left with the impression that it was the religious themes that commanded his attention, perhaps in the spirit of a 'pilgrimage'. We may assume that the combination of archaic and novel elements of Apollo's temple was a contribution of Ictinus, based on the archaic temple⁸⁹ in consultation with the priests who would have interpreted the cult for him. We have no record of the cult, and certainly none of the priests' requirements. This is why it has been necessary to look to the context to understand probable thematic emphases, in relation to the elements of articulation of the architecture. The antiquity of the cult suggests that continuity with archaic tradition would demand the best authority for innovations, and so we will adhere to poets like Homer and Hesiod (drawing upon such late authors as Ovid, Strabo etc. as necessary), although it is also likely that the century and a half of dialogues between the mythic inheritances and philosophy would provide a context for new forms of analogy and synthesis.

In general, the Greek *naos* houses the god/goddess,⁹⁰ manifesting the authority of the Olympians and thus mediating between the primordial conditions disclosed in myth and the vicissitudes of history. It is also evident through numerous ancient artifacts, texts but also instruments, that the Greek and Middle Eastern civilizations were fascinated with and had profound knowledge of nature's annual 'rebirth'

⁸⁵ Combination of materials such as: white marble guttae on blue-green limestone cornice, see Rykwert, Joseph., *The dancing Column: On order in Architecture*. Cambridge, Mass.: MIT Press. 1996, Chapter VII, p. 462 note 41; also in Dinsmoor 1933, p. 204.; For the marble capitals on limestone shafts in the interior see, Dinsmoor 1933, p. 208.

⁸⁶ Cooper 1978, pp. 153-154.

⁸⁷ For the peculiarities of the Classical floor, Kelly 1995, pp. 241-243.

⁸⁸ Pausanias 8.41.9.

⁸⁹ Kelly 1995, pp. 238-240, 261-263.

⁹⁰ Burkert 1985, p. 88.

manifested in such landscape motifs as mountains, fields, seas, rivers and especially the image of the tree, as well as the celestial phenomena of the seasonal cycles of the day and night sky. This served the practical purpose of navigation and agriculture as accurately described in Hesiod's *Works and Days* of the 8th century B.C.; but, since earlier times in the Near East, religion, poetry and mytho-philosophical speculation mediated between the immortal gods and everyday life. For these reasons, central for understanding the introduction of the innovative elements of the temple, especially the Corinthian column, is the figure of Apollo, to whom the temple is dedicated.

2.1. Apollo *Epikourios*

The deity worshipped at Bassae, Apollo, is one of the most prominent gods of the Greek pantheon. We have examined how important is his cult in this part of Greece in relation to Zeus and Demeter-Persephone. He is commonly depicted either holding his silver bow, thus his auxiliary name *Asimodoxaros* ('silver-bowed') and *Ekativolos* ('one that strikes from distance') or his Lyre, *Kitharoidos* ('holding a kithara/lyre') as the god of Music, and *Musagetes* ('leader of the Muses'). He is the child of Leto and Zeus born under a palm tree on the island of Delos together with his twin sister Artemis, with both having many different attributes.⁹¹ Apollo was the god of light, arts, poetry and oracles, with his most important oracular center in Delphi, of plague and medicine, the one who averts dangers that can lead to crop failures, but also a capable warrior.

Apollo is the union of: "*Youthfully pure renewal at the annual gathering, the banishment of disease in song and dance, and the image of an arrow-bearing Guardian God*".⁹² The beauty and power of Youth, the idealized *kouros*, as an ideal for the Greeks is central in the culture of Apollo,⁹³ thus he is the god of initiation of youth to manhood⁹⁴ himself being: "*...an epitome of that turning-point in the flower of youth, telos hebes, which the ephebos has attained and which he also leaves behind with the festival which gains admittance to the society of men...with the tribal gathering and the society of men one can also connect the epithet Lykeios, the wolf-like, and perhaps Phoibos (the fox-like?) and Delphidios/Delphinios unquestionably belongs in this context*".⁹⁵ Apollo's epithet *Lykeios* points to Mt. Lykaion and also to Lycia in Asia Minor, where the Iliad connects him with an important oracle in Patara.⁹⁶ Central for

⁹¹ Burkert 1985, p. 146.

⁹² Burkert 1985, p. 145.

⁹³ Burkert 1985, p. 143.

⁹⁴ Hornblower, Simon, and Spawforth, Antony *op. cit.*, p. 51, s.v. Apollo.

⁹⁵ Burkert 1985, p. 145.

⁹⁶ Burkert 1985, pp. 144-145.

understanding the new elements in the design of the temple at Bassae is the fact that from the 5th century onwards he will be also associated with Helios, and understood as a Solar-Sun-god.⁹⁷

The temple at Bassae was dedicated to Apollo surnamed *Epikourios* meaning ‘Helping-Assisting’, according to Pausanias, for the help the god offered to the Phigaleians when they faced a terrible plague:

[8.41.8] Of the temples in the Peloponnesus, this might be placed first after the one at Tegea for the beauty of its stone and for its symmetry. Apollo received his name from the help he gave in time of plague, just as the Athenians gave him the name of Averter of Evil for turning the plague away from them.

Pausanias, *Description of Greece*, translated by W. H. S. Jones

However, according to Cooper the Bassae-Kotilon religious complex has a pan-Arcadian character and rejects the primary healing aspect because of the lack of any archaeological findings that would suggest Bassae as a healing sanctuary. Instead, based on the many and various military dedications found at the temple site in the form of votive simulacra of bronze and iron helmets, corslets, spears and shields, he points out the military nature of the cult.⁹⁸ Anthony Snodgrass gives a 7th century date for some of them.⁹⁹ This is the earliest date of these kind of dedications at the site.¹⁰⁰ Cooper links the name of *Epikouros* with the ancient tradition of Arcadia as being the main source of mercenary soldiers and assisting forces in battles the "*epikouros*"¹⁰¹ and identifies Apollo *Bassitas* and Apollo *Epikourios* as war gods.¹⁰²

Healing-purification, music-dancing¹⁰³ and transition of youth to manhood, are central in the mythical fully armed warbands the Cretan Kouretes, Idaean Daktyloi and Phrygian Korybantes, all associated with the protection of the birth and the raising into manhood of Zeus. Rhea presides over the initiation and purification of the Korybantes.¹⁰⁴ They are found at Lycosura along with the Kouretes under the images of Demeter and the Mistress.¹⁰⁵ The mythical youthful warriors, the Kouretes, brandished the shields in a dance around the newborn Zeus that mirror: "...*Cretan initiation rituals as found in the Ida mysteries: here Zeus was born every year in the glow of a great fire. In the war dance of the youths the Dictean Zeus*

⁹⁷ Burkert 1985, pp. 120, 149, 335-336.

⁹⁸ Cooper 1978, pp. 16-21.

⁹⁹ Snodgrass, A. M., *Early Greek Armour and Weapons: From the End of the Bronze Age to 600 B.C.*, Edinburgh: University Press, 1964, pp. 74, 124.

¹⁰⁰ Cooper, v.I. *The architecture*, 1992, p. 67

¹⁰¹ Cooper 1978, pp. 21-28.

¹⁰² Cooper 1978, pp. 75-76.

¹⁰³ Burkert 1985, p. 80.

¹⁰⁴ Burkert 1985, p. 110.

¹⁰⁵ Pausanias 8.37.3-6.

appears as the greatest Kouros who springs on flocks, corn fields, houses, towns, ships and young citizens".¹⁰⁶ With war-dancing and playing noisy instruments around Rhea during her labor and the infant Zeus, the Kouretes assisted the goddesss in protecting him from Kronos while they are also attributed as rearing Zeus in his youth.¹⁰⁷ Additionally, they are attributed as being the discoverers of iron and smelting of iron. Interestingly, Burkert argues that the Idaean Daktyloi could have mirrored guilds of smiths in real life.¹⁰⁸ Pausanias provides information on the activity of the five brothers in the region around Bassae¹⁰⁹ and especially Olympia, where Heracles the Daktyl, leader of the group, is attributed as the founder of the games.¹¹⁰ Specifically, he crowned the winner of the first running-race among him and his brothers with a branch of wild olive, the tree was said to have been introduced by Heracles in Greece from the mythical land of the Hyperboreans.¹¹¹ At Olympia an altar was dedicated to him with the surname *Parastates* (Assistant),¹¹² which is very close to the meaning of *Epikourios*. The hero Heracles also appears as we will see in the interior of the temple.

The image of Apollo as 'justice-order' warrior, ideal kouros and initiator of youth into manhood, bringer of spring and light, healer and rejuvenator of bodies and spirits through his melodies, are all elements suggested in the iconographic program of the temple of Apollo *Epikourios*. Along with Apollo's equation to Helios-Sun, the belief in his annual travel to and return from Hyperborea, and the influence of the playing of his lyre on the passing of time and seasons, in turn the external appearance of nature, seem to have influenced the design of the temple and to be connected with the exuberant floral elements that characterize the Corinthian capital.

2.2. Pronaos and opisthodomos metopes

The sculptures of the Greek temple most directly testify to the cultic orientation, why it would be constructed and, potentially, by and for whom. Fortunately the shattered exterior sculptural program of the temple at Bassae that consists of the pronaos and opisthodomos has been reconstructed in drawings by the surviving elements piece by piece. There have been debates over the existence or not of sculptures on the pediments, but today the commonly accepted position is that there were no sculptures there.¹¹³ The

¹⁰⁶ Burkert 1985, p. 127.

¹⁰⁷ Strabo, *Geography* 10.3.11.; Also for Rhea entrusting the infant Zeus to the five Idaean Dactyls brothers led by Heracles who are thought as being the same as the Kouretes, Pausanias 5.7.6.

¹⁰⁸ Burkert 1985, p. 173.

¹⁰⁹ Pausanias 5.7.6-9, 8.31.3.

¹¹⁰ Pausanias 5.7.9.

¹¹¹ Pausanias 5.7.7.

¹¹² Pausanias 5.14.7.; For the mythical tale of the altar at Olympia dedicated to Heracles *Parastates*, as set up by Clymenus from Crete, a descendant from Heracles of Ida around 50 years after Deucalion's flood, Pausanias 5.8.1.

¹¹³ For the existence of pedimental statues see for instance, Dinsmoor, *The Architecture of Ancient Greece: an account of its historic development*, (3rd ed.), New York, 1973, p. 159.

arrangement of the metopes and the interior frieze in this study is based on the work *The Temple of Apollo Bassitas. Vol II: The Sculpture* (1992) by Brian C. Madigan with contributions by Cooper.

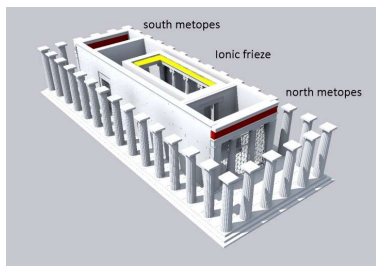


Figure 11. Position of the metopes (red) and Ionic frieze (yellow).



Figure 12. Pronaos with metopes.

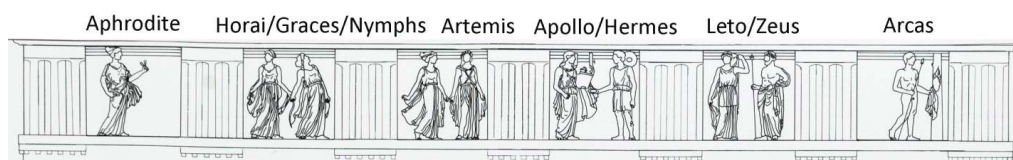


Figure 13. The six north metopes of the pronaos.

The iconographic program consists of 12 metopes, six to the north and six to the south and 23 slabs of the interior Ionic frieze (Fig. 11). The north metopes of the pronaos (Fig. 12) depict the celebration of the return of Apollo from Hyperborea (Fig. 13),¹¹⁴ a fabulous realm of eternal spring at the far North,¹¹⁵ even beyond the home of the North wind, regarded as an idyllic place where the people were blessed, long-lived and untouched by war, hard toil, old age and disease.¹¹⁶ The mythical land was perceived as "*the ancient garden of Phoebus*" located beyond the "*whole sea*" where also the ends of the earth, the sources of night and the unfoldings of heaven are.¹¹⁷ The priests and people there worshipped only Apollo, who

¹¹⁴ Madigan Brian C. with contributions by Cooper, Frederick A., *The Temple of Apollo Bassitas. v.2. The sculpture*, Princeton, N.J.: American School of Classical Studies at Athens, 1992, pp. 21-22, 27-28.

¹¹⁵ Burkert 1985, pp. 110-111, 146.

¹¹⁶ Pindar, *Pythian 10*, translated by Race W. H. 1997: "The bronze heaven is never his to scale, but as for all the glories which our mortal race attains, he completes the furthest voyage. And travelling neither by ships nor on foot could you find the marvelous way to the assembly of the Hyperboreans [30]. With them Perseus, the leader of people, once feasted, upon entering their halls, when he came upon them sacrificing glorious hecatombs of asses to the god. In their banquets and praises Apollo ever finds greatest delight [35] and laughs to see the beasts' braying insolence. And the Muse is no stranger to their ways, for everywhere choruses of maidens, sounds of lyres, and pipes' shrill notes are stirring. With golden laurel they crown their hair [40] and feast joyfully. Neither sickness nor accursed old age mingles with that holy race, but without toils or battles they dwell there, having escaped strictly judging Nemesis."

¹¹⁷ Strabo, *Geography* 7.3.1., translated by Jones. H. L. 1924: "It is because of men's ignorance of these regions that any heed has been given to those who created the mythical "Rhipaean Mountains" and "Hyperboreans," and also to all those false statements made by Pytheas the Massalian regarding the country along the ocean, wherein he uses as a screen his scientific knowledge of astronomy and mathematics. So then, those men should be disregarded; in fact, if even Sophocles, when in his role as a tragic poet he speaks of Oreithyia, tells how she was snatched up by "Boreas" and carried over the whole sea to the ends of the earth and to the sources of night and to the unfoldings of heaven and to the ancient garden of Phoebus," his story can have no bearing on the present inquiry, but should be disregarded just as it is disregarded by Socrates in the *Phaedrus*."

upon his annual return in Greece, brought with him the return of spring.¹¹⁸ The first three metopes depict the goddess Aphrodite playing the krotala, two women dancing while holding hands and one dancing near Artemis who leads the group (Fig. 14).¹¹⁹ In the fourth scene we find Apollo holding his lyre, ready to play his delightful melody followed by his retinue and beside him stands the god Hermes making a libation,¹²⁰ inventor of the lyre that was offered by him as a gift to Apollo. The god's return from the Hyperboreans and the playing of his kithara are related with celestial indications of the arrival of the spring, Apollo plays the kithara and dances all night from the spring equinox to the rising of the Pleiades after his arrival.¹²¹ The triad of women in the second and third metopes are identified by Madigan as either the three Charites: Euphrosyne, Aglaia and Thalia, the constant retinue of Apollo (found for example at the great statue of Apollo at Delos with the Charites in his right hand),¹²² the three

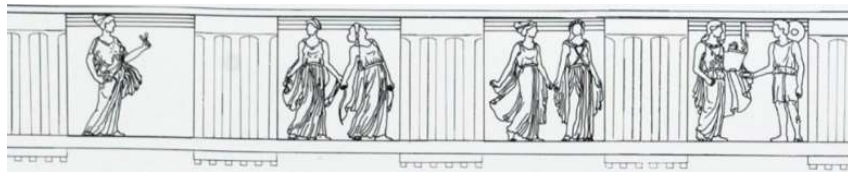


Figure 14. The first four metopes of the pronaos.

local Nymphs that took care of infant Zeus: Theisoa, Neda, Hagno.¹²³ The *Homeric Hymn to Pythian Apollo* includes the Charites and Horai in his celebrating retinue while he plays his lyre, together with Aphrodite, Artemis, Hermes, Leto and Zeus and other gods and goddesses.¹²⁴ The female triads of the Horai and Graces are found together in various hymns and artworks and are closely associated through the ‘*dance of the Horai*’ and ‘*dance of the Graces*’ that were sometimes conflated. One of the most preeminent coexistence of them is found in the temple of Zeus at Olympia, where the triadic Horai and

¹¹⁸ Madigan with contributions by Cooper 1992, p. 27.

¹¹⁹ Madigan with contributions by Cooper 1992, pp. 23-24.

¹²⁰ Madigan with contributions by Cooper 1992, p. 22.

¹²¹ Madigan with contributions by Cooper 1992, p. 27 note 63.

¹²² Burkert 1985, p. 146.

¹²³ Madigan with contributions by Cooper 1992, pp. 24-27.

¹²⁴ *Homeric Hymn 3 to Pythian Apollo*, translated by West M. L. 2003: “O Lord, Lycia too is yours, and lovely Lydia, and Miletus the beautiful town by the sea; and you again, none other, are the great lord of wave-washed Delos; and playing on his scooped-out lyre glorious Leto’s son goes also to rocky Pytho, his divine garments scented, while his lyre under the golden plectrum makes a delightful clangor. From there he goes up from earth to Olympus, swift as thought, to the house of Zeus, to join the congregation of the other gods; and at once the immortals devote themselves to lyre music and song. The Muses, responding all together with lovely voice, sing of the god’s divine gifts and of human sufferings—all that they have from the immortal gods and yet live witless and helpless, unable to find a remedy for death or a defence against old age. The lovely-haired Graces and the cheerful Horai, and Harmonia, Hebe, and Zeus’ daughter Aphrodite, dance, holding each other’s wrists; among them performs one neither plain nor short of stature, but tall and fair to behold, Artemis profuse of arrows, fellow nursling of Apollo. Among them also Ares and the keen-sighted Argus-slayer sport; while he, Phoibos Apollo, plays his lyre in the middle, stepping fine and high, and splendor shines about him, and the flashing of his feet and his tunic of quality thread. Leto of the golden locks and resourceful Zeus are delighted in their great hearts as they watch their dear son sporting among the immortal gods.”

Graces flank the head of the splendid chryselephantine statue of Zeus made by Pheidias. Pausanias informs us that:

[5.11.7] On the uppermost parts of the throne Pheidias has made, above the head of the image, three Graces on one side and three Seasons on the other. These in epic poetry are included among the daughters of Zeus. Homer too in the *Iliad* says that the Seasons have been entrusted with the sky, just like guards of a king's court. The footstool of Zeus, called by the Athenians *thranion*, has golden lions and, in relief, the fight of Theseus against the Amazons, the first brave deed of the Athenians against foreigners.

Pausanias, *Description of Greece*, translated by W. H. S. Jones, H. A. Ormerod

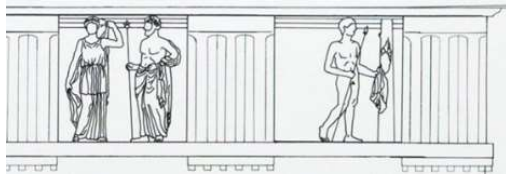


Figure 15. The last two metopes of the pronaos.

On the last two metopes we find first Leto and Zeus, parents of Apollo and Artemis, and then probably Arkas the eponymous hero of the Arcadians (Fig. 15)¹²⁵ the offspring of Zeus-Kallisto and Lykaon's grandson. According to Madigan the positioning of Arkas near Zeus expresses: "*the familial relation between the two as well as the intimate connection between the hero's fate and the god's sanctuary on Mt. Lykaion*".¹²⁶ Arkas is: "*a harbinger of spring*".¹²⁷ His mother, Kallisto, was transformed into a bear by Hera, and then she was hunted and pursued by Arkas into the sanctuary of Zeus on Mt. Lykaion, when Zeus intervened; by transforming both into stars.¹²⁸ He is the constellation Arktophylax, the Bear-guardian, while the bear that he is guarding is his mother Kallisto-Arktos, the Great Bear (Ursa Major).¹²⁹ When Hera heard of that, she became so angry that she asked Tethys to keep Ursa Major-Kallisto in a certain place so that the constellation would never sink below the horizon and thus bathe in the waters of

¹²⁵ Madigan with contributions by Cooper 1992, pp. 25-27.

¹²⁶ Madigan with contributions by Cooper 1992, p. 27.

¹²⁷ Madigan with contributions by Cooper 1992, p. 28.

¹²⁸ Madigan with contributions by Cooper 1992, p. 25; For variants of the myth see p. 25 note 56.

¹²⁹ Madigan with contributions by Cooper 1992, p. 28.; Nonnos, *Dionysiaca* 13.295, translated by W. H. D. Rouse, 1940: "...Arkadia, city of Arkas son of Callisto and Zeus, whose father fixed him in the starry firmament and called him Boötes Hailbringer."

the Ocean.¹³⁰ Odysseus mentions this constellation as the best for naval navigation for the same reason,¹³¹ as it is always visible in the night sky. Also from Hesiod we learn that the star Arktouros (the principal star in Arktophylax¹³²) rises first at dusk from the Ocean, after Zeus has completed sixty winter days after the solstice (late February-early March), and is followed by the appearance of the daughter of Pandion, the swallow, who signals to men that the spring is just beginning (Hesiod advises to prune the vine before the swallow appears).¹³³ Thus the Arktophylax return: "*to the evening sky marks the return of spring and the arrival of fructifying rains*".¹³⁴ The hanging up by Arcas of his chlamys and animal-skin hat on the tree on the last metope is a sign of the return of the hunter.¹³⁵ The presence of the tree at the right side of the last metope: "*serves as a frame for the entire frieze. It also defines a sanctuary, as does the tree on the right side of a frieze slab BM 524 (Pl. 43), and may allude to a sacred grove*".¹³⁶ The return of the hunter on the metope indicates the spring season.¹³⁷ The relation of Arcas with the passing seasons and the sun's movement in the sky is also implied at Mantinea where his tomb was called 'Altars of the Sun'.¹³⁸ Arcas therefore is placed properly at the northern side of the temple facing his mother Ursa Major (Kallisto) constellation.

¹³⁰ Ovid, *Metamorphoses* Book 2, translated by Brookes, 1922: "[496] When thrice five birthdays rounded out the youth of Arcas, offspring of Lycaon's child, he hunted in the forest of his choice; where, hanging with his platted nets the trees of Erymanthian forest, he espied his transformed mother, — but he knew her not; no one had told him of his parentage. Knowing her child, she stood with levelled gaze, amazed and mute as he began approach; but Arcas, frightened at the sight drew back to pierce his mother's breast with wounding spear. — but not permitting it the god of Heaven averted, and removed them from that crime. He, in a mighty wind—through vacant space, upbore them to the dome of starry heaven, and fixed them, Constellations, bright amid the starry host. [508] Juno on high beheld Calisto crowned with glory—great with rage her bosom heaved. She flew across the sea, to hoary Tethys and to old Oceanus, whom all the Gods revere, and thus to them in answer to their words she made address; "And is it wondered that the Queen of Gods comes hither from ethereal abodes? My rival sits upon the Throne of Heaven: yea, when the wing of Night has darkened let my fair word be deemed of no repute, if you behold not in the height of Heaven those new made stars, now honoured to my shame, conspicuous; fixed in the highest dome of space that circles the utmost axis of the world. Who, then, should hesitate to put affront on Juno? matchless goddess! each offense redounds in benefit! Who dreads her rage? Oh boundless powers! Oh unimagined deeds! My enemy assumes a goddess' form when my decree deprives her human shape; — and thus the guilty rue their chastisement! "Now let high Jove to human shape transform this hideous beast, as once before he changed his Io from a heifer. — Let him now divorce his Juno and consort with her, and lead Calisto to his couch, and take that wolf, Lycaon, for a father-in-law! "Oh, if an injury to me, your child, may move your pity! drive the Seven Stars from waters crystalline and azure-tint, and your domain debar from those that shine in Heaven, rewarded for Jove's wickedness. — bathe not a concubine in waters pure."— the Gods of Ocean granted her request."

¹³¹ Homer, *Odyssey*, Book 5, 269, translated by A. T. Murray, 1919: "Gladly then did noble Odysseus spread his sail to the breeze; and he sat and guided his raft skillfully with the steering oar, nor did sleep fall upon his eyelids, as he watched the Pleiades, and late-setting Boötes, and the Bear, which men also call the Wain, which ever circles where it is and watches Orion, and alone has no part in the baths of Ocean."

¹³² Madigan with contributions by Cooper 1992, p. 28 note 69.

¹³³ Hesiod, *Works and Days* [564-570].

¹³⁴ Madigan with contributions by Cooper 1992, p. 28.

¹³⁵ Madigan with contributions by Cooper 1992, p. 28.

¹³⁶ Madigan with contributions by Cooper 1992, pp. 26-27.; On the meaning of Bassai as 'wooden glen', Cooper, *vI.architecture*, 1992, pp. 1, 61.

¹³⁷ Madigan with contributions by Cooper 1992, p. 28 note 70.

¹³⁸ Pausanias 8.9.4.

Turning our attention to the six south metopes of the opisthodomos of the temple, we find the depiction of the Dioskouroi brothers, Kastor and Polydeukes, kidnapping and raping the Leukippidai, who had been already betrothed to their twin cousins Idas and Lynkeus (Figs. 16, 17).¹³⁹ This mythical theme has a natural association with Aphrodite, goddess of sexual arousal and desire, and Eros¹⁴⁰ who always lurks behind instinctual erotic *pathos*, that in this case will eventually cause a strife leading to the death of one of the two brothers. The Leukippidai, Phoibe and Hilaeira, were maidens sisters from



Figure 16. Opisthodomos with metopes.

Messenia, daughters of the Messenian king Leukippos, whereas the Dioskouroi twins were sons of the Spartan queen Leda by Zeus and her husband Tyndareus and were brothers of Helen. Polydeukes being a son of Zeus was at first the only one that was offered immortality, but he insisted to share it with his beloved brother Kastor, when the latter lost his life in the battle against Idas and Lynkeus.¹⁴¹ Zeus agreed, but to appease the Fates, the twins had to spend alternate days in heaven and the underworld. Burkert¹⁴² and Gregory Nagy¹⁴³ remark that the Dioskouroi exhibit a great resemblance with the *ashvins* (gods of Shining of Sunrise and Sunset) of the Vedic mythology. From this perspective the Dioskouroi are perceived as embodying the Morning and Evening stars.¹⁴⁴ The Dioskouroi were generally shown as youthful horsemen, also flying in the sky, with wide-brimmed traveller's hats, gods of horsemanship, helpers of navigators and protectors of guests, travelers, and assistants in case of danger.¹⁴⁵ Moreover: "*...the Dioskouroi are to a large extent a reflection of the body of young men capable of bearing arms. They invent the war dances, and as mounted warriors they ride out in search of adventure, rustling cattle and stealing brides, but they also rescue their sister*".¹⁴⁶ Therefore, in the Spartan cult they are found in the context of the warrior society and of initiations; and along with Heracles they were initiated at Eleusis and perceived as examples for those who wanted to break out of mortality to approach the gods.¹⁴⁷

¹³⁹ Madigan with contributions by Cooper 1992, pp. 13-15, 31.

¹⁴⁰ Madigan with contributions by Cooper 1992, p. 14.

¹⁴¹ Burkert 1985, pp. 212-213.

¹⁴² Burkert 1985, p. 17.

¹⁴³ Nagy, Gregory, *Greek Mythology and Poetics*, Chapter 9. "Phaethon, Sappho's Phaon, and the White Rock of Leukas: 'Reading' the Symbols of Greek Lyric," Cornell University Press, 1990, pp. 256-259.

¹⁴⁴ Nagy, Gregory, "Helen of Sparta and her very own Eidolon," *Classical Inquiries*, posting 2016.05.02. par. 14

¹⁴⁵ Burkert 1985, pp. 212-213.

¹⁴⁶ Burkert 1985, pp. 212-213.

¹⁴⁷ Burkert 1985, pp. 212-213.

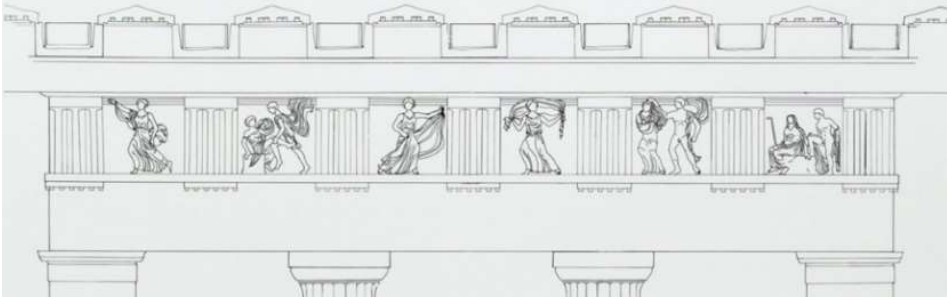


Figure 17. The south metopes of the opisthodomos.

The violent-passionate thematic subject of the south metopes seem to subvert that of the north metopes of peace and joy of the chorus-dance celebrations and return of Apollo from the Hyperboreans, marking an inherent peculiarity of the season of spring. This is the period of two contradictory but parallel conditions triggered by the seasons and the instinctual sexual forces in mankind and nature in general. Although it is the blossoming, reproductive period of nature, abundant in fragrances and colors, the high erotic state of flora, fauna and humans, it is also the moment of antagonistic-competitive conditions in search of a suitable and desirable mate, not only by boasting through appearance, but even through bloody conflicts. It is also the season that is suitable for raids and warfare, which, for males, marks the importance of coming-of-age rites. The attraction of external beauty, such as that of a mythical figure like Helen, can easily slip into seduction and uncontrollable passion, the source of transgression and strife, and supposedly the basis for the Trojan War. This antagonistic theme is further elaborated in the interior frieze of the temple with the struggles of Greek heroes.

2.3. The interior Ionic frieze and the roof debate

The Ionic frieze at Bassae is a remarkable example of Classical period sculpture that captures moments of war between the Greeks and hostile forces. Of the 23 slabs of the Ionic frieze 11 depict a Centauromachy—Centaur disrupting the procession in honor of Artemis for Polypoites' birth—and 12 represent the Trojan and Heraklean Amazonomachies.¹⁴⁸ Here, diverse polarities are in play, cultured/barbaric, man/warrior woman-Centaur, familiar/exotic, the agon of life and death where the Greek heroes are presented as defenders of social order against the forces of disorder. Among them we find Theseus in the Centauromachy¹⁴⁹ and Achilles killing the Amazonian queen Penthesilea in the Trojan Amazonomachy,¹⁵⁰ however one is distinguished. Heracles is positioned on the south, directly on top of the Corinthian column in a series of slabs depicting his ninth labor, the seizing of the belt of the Amazon

¹⁴⁸ Madigan with contributions by Cooper 1992, pp. 75, 78.

¹⁴⁹ Madigan with contributions by Cooper 1992, p. 87.

¹⁵⁰ Madigan with contributions by Cooper 1992, p. 71.

queen Hippolyte.¹⁵¹ Specifically, the hero is depicted at the moment of his dueling with Hippolyte (Fig. 18).¹⁵²

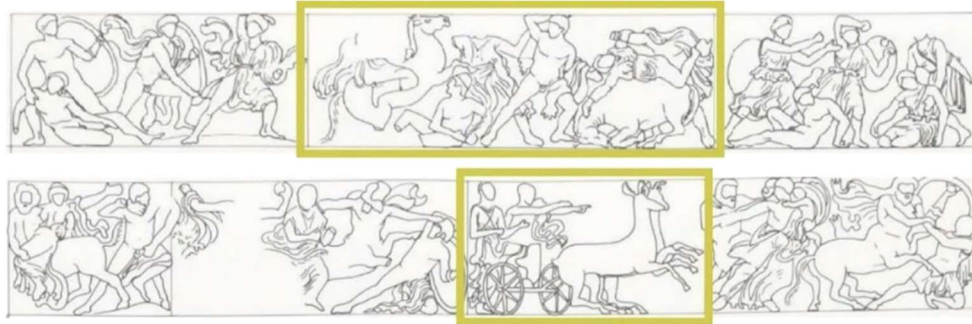


Figure 18. Top, southern group of interior frieze. In the middle Heracles battling with Hippolyte. Bottom, Artemis and Apollo in her chariot drawn by stags at the north-east corner of the interior frieze coming to the assistance of the infant Polypoites and his nurse.

Heracles the pan-Hellenic hero and guardian is the ideal man that every youthful warrior looks up to. He is always wandering, fighting away from home, suitable for the gymnasium and the *epheboi*.¹⁵³ Burkert argues that for the Greeks he was also the prototype of the ideal ruler, able to make the correct moral choices, acting for the good of mankind who eventually found his place amongst the gods, by achieving immortality through his *apotheosis*. His is the one that broke the fear of death and with him: "... *the divine is close at hand in human form, not as an Apollonian antitype, but as an inspiring prototype. Heracles contained the potential to shatter the limits of Greek religion.*"¹⁵⁴ On the opposite, northern side of the frieze we also find a new element, the direct intervention and assistance of the gods in favor of the Greeks. Artemis guides a chariot drawn by stags with her brother Apollo next to her, ready to shoot an arrow at a centaur that has grabbed a woman (nurse) carrying an infant, identified as Polypoites, whose birth is the occasion of the procession (Fig. 18).¹⁵⁵ Artemis and Apollo appear here as assistants/helpers of a woman with an infant boy paralleling the assistance of the Nymphs and the Kouretes to Rhea with the infant Zeus on Mt. Lykaion. The themes of: "*violence, death and sacrilege*" of the southern opisthodomos metopes and the frieze, stand in antithesis to the north pronaos metopes depicting deities in: "*peaceful, pious acts*".¹⁵⁶ The return of Apollo at the north metopes is: "*associated with law and justice, the foundations of civilization.*", while the death theme associated with battle scenes: "*is countered by the themes of rebirth and abundance associated with Apollo's return from the Hyperboreans.*"¹⁵⁷ The reciprocity of destruction and creation is also present in the two different depictions of Apollo as a

¹⁵¹ Madigan with contributions by Cooper 1992, p. 76.

¹⁵² Madigan with contributions by Cooper 1992, p. 88.

¹⁵³ Burkert 1985, p. 211.

¹⁵⁴ Burkert 1985, p. 211.

¹⁵⁵ Madigan with contributions by Cooper 1992, p. 82.

¹⁵⁶ Madigan with contributions by Cooper 1992, pp. 89-90.

¹⁵⁷ Madigan with contributions by Cooper 1992, p. 89.

musician in the pronaos metopes, and as a fighter in the frieze, however always harmonized in the image of the god as a cultivated hunter reassuring together with his sister of the prevalence of order.

The existence of this high quality, deep relief artwork in the interior of the temple at Bassae, which was an innovation for that time, is linked with one of the most debated elements of the temple, its roof. The appearance of the interior and the visibility of the sculptured frieze are indeed heavily affected by the design of the roof. The solutions that have been historically proposed can be grouped in two, one focusing on the need of direct sunlight in order for the frieze, Apollo's sculpture and the Corinthian column to be properly illuminated, the hypaethral roof. A hypaethral roof has been restored by: Cockerell (1860), Stackelberg (1826), Blouet (1833), Orlandos (1925), Kenner (1946) and Seltman (1946)—whereas Roux (1961) restored a hypaethral roof to the adyton for smoke to escape (1961)—¹⁵⁸ and another group supporting a flat ceiling with a roof, which is today the canonical solution: Hahland (1948-1949), Mallwitz (1962), Dinsmoor (1933) restored a wooden ceiling,¹⁵⁹ Krauss (1959) agreed with the wooden ceiling but presented his own view of the interior,¹⁶⁰ and Cooper (1992) restores a marble ceiling, slightly above the frieze geison.¹⁶¹

There are two things to be noticed in respect of the visibility issue not only of the frieze, but also of the Corinthian column and the interior of the temple in general. The visibility in the case of a closed roof is not connected only with the height of the interior flat ceiling above the frieze. The crucial parameter in naturally illuminating sufficiently an interior space is the orientation of the building in respect to the size, number, and position of openings on the walls and the roof/ceiling. In the plan of the Bassae temple we have an almost precise north-south orientation,¹⁶² and two openings, one main entrance in the North approached after traversing two covered areas, the peristyle and the pronaos, and one opening in the East of the adyton shaded from the peristyle. Both openings did not have doors.¹⁶³ According to Cooper the east opening was actually not a doorway but a window.¹⁶⁴ Access to the interior was possible only through the north opening since the east one was sealed with a grille and its sill height (0.648 m.) makes it unlikely that there was ever a small portal inserted within the crossbars there to allow entry since: "*the*

¹⁵⁸ See Kelly, Nancy, 'The Marble Roof by Nancy J. Kelly' - The Hypaethron, in Cooper F.A., *The Temple of Apollo Bassitas. v.1. The architecture*, N.J.: American School of Classical Studies at Athens, 1992, pp. 277-279 note 57.

¹⁵⁹ According to Dinsmoor beds on the cornice indicate that there was a flat ceiling with wooden beams crossing the the cella, Dinsmoor 1933, pp. 212-214.

¹⁶⁰ Krauss, F., "Beobachtungen am Apollotempel von Bassae," in *Neue Ausgrabungen in Nahen Osten, Mittelmeerraum und in Deutschland*, Bonn, 1959, p. 14.

¹⁶¹ Cooper 1978, pp. 153-156.; For arguments against the hypaethral roof, Kelly, 'The Marble Roof by Nancy J. Kelly', *v.1. The architecture*, 1992, pp. 277-279.; For the marble ceiling in the cella and the adyton, Cooper, Frederick A. 'The Ceilings', *The Temple of Apollo Bassitas. v.1. The Architecture*, 1992, pp. 349-351.

¹⁶² See Figure 26.

¹⁶³ Cooper, Frederick A., 'The Entranceways', in *The Temple of Apollo Bassitas, v.1. The architecture*. Princeton, N.J.: American School of Classical Studies at Athens, 1992, p. 210.

¹⁶⁴ Cooper, 'The Entranceways', *v.1. The architecture*, 1992, p. 223.

very height of the sill eliminates that option".¹⁶⁵ The temple's design and orientation simply do not allow enough natural light to intrude in the interior for the frieze to be adequately visible, confirmed by annual light exposure testing on a digital model of the temple with flat ceiling and a roof.¹⁶⁶ On the one hand, the north entrance is 10.5 meters away from the exterior peristyle where the northern light—constant through the day and year but not strong, diffused and shadowless—cannot reach, therefore insignificantly illuminating the interior. On the other, the east opening allows direct light to intrude into the adyton for a short time during the morning hours. In the winter period the morning sun's rays do intrude for a short time also into the cella. However in all cases, the illumination is not enough to adequately light the cella, leaving it in near total darkness and rendering unseeable the artistic creations of the frieze, of Apollo's statue, if it was located there, and of the columns, not only from the exterior but also from the interior



Figure 19. Comparison of the interior's illumination between the closed roof (left) and hypaethral roof (right) at sunrise of spring equinox.



Figure 20. Visibility comparison of the interior from outside the temple, between the closed roof (left) and hypaethral roof (right) at sunrise of spring equinox.

(Figs. 19, 20). In this case, providing lighting from fire sources would be an absolute necessity. The first demands at least some parts of the flat ceiling to be either permanently open, or to be able to be periodically opened and closed for the smoke to go out from the holes of several marble roof tiles.¹⁶⁷

¹⁶⁵ Cooper, 'The Entranceways', v.1. *The architecture*, 1992, pp. 221-223.

¹⁶⁶ The digital model is based on the dimensions of the temple with flat ceiling and closed roof provided by Cooper in, Cooper, Frederick A. *The Temple of Apollo Bassitas*. Princeton, N.J.: American School of Classical Studies at Athens, 1992. The model is based on the plan with ideal dimensions (Cooper, v.4. *Folio Drawings*, 1992, plate 11). The model does not reproduce the variety of materials and has a sunken cella pavement (Cooper restores a continuous cella pavement). Some of the model's stone wall joints and ornamental details, such as the capitals of the columns, are approximations of the actual ones. The model was made with the assistance of Ioannis Thodis.

¹⁶⁷ Dinsmoor has proposed that: "*there may actually have been single tiles with small openings and removable covers for providing ventilation or light to the loft above the ceiling.*" Whereas Roux placed an: "*opening in the adyton ceiling and roof above to allow smoke to escape.*", Kelly, 'The Marble Roof by Nancy J. Kelly', v.1. *The architecture*, 1992, p. 279.

Another possibility is that of a closed translucent marble roof without an interior cella ceiling, that could allow diffused light to reach the interior such as those attested at the 6th century Oikos of the Naxians at Delos, and occasionally proposed for the Parthenon and the temple of Zeus at Olympia. However this still demands wooden beams at regular distances to span the cella's width, along the spur walls and on top of the Ionic frieze, which would interrupt the even light from the roof and create shadows on several parts of the Ionic frieze, heavily disrupting its intended visual continuity. Moreover, the gaps between the horizontal beams would improperly draw attention to the lighted attic-like space on top of the ceilings, whose fragments exist, of the niches on the right and left of the cella and the adyton directly on top of the Corinthian column.

Instead, design techniques on plan, especially the existence of the deep side niches formed by the spur walls of the Ionic half-columns, can be read as a spatial and optical operation that is implemented here in order to give the impression of an extended cella space and to allow for spatial ambiguity. This is particularly reinforced when seeing the temple, either from the entrance, or outside the pronaos, from the North plateau in front of the temple, where the majority of the worshippers would probably have stood. The investigation on solar lighting exposure on the digital model of the temple with a hypaethral opening of the completely open form over the cella, such as that provided by Blouet, seem to favor such type of solution. It offers an abundance of south light throughout the year, stressing the importance of the cella and the darker adyton, allowing the deep carved reliefs of the frieze to be emphasized in the contrast of natural light coming from above and the shadows of the niches, and the statue of Apollo and the Corinthian column to be visible through the main entrance even from the outside. A hypaethral solution is further supported by the fact that the temple's design and its proportions appear to have been dictated by the sun's movement during the year.

3. Apollo, the Corinthian column, and the solar drama

The themes that have been examined so far are all connected with the circular passing of the seasons¹⁶⁸ and the annual phases of the sun, such as: Apollo's relation to the Mt. Lykaion events and the Demeter/Persephone cult, especially Zeus as a weather-atmospheric god and the Demeter/Persephone allegory of nature's annual rebirth are strongly present in Phigaleia. Likewise, are Apollo's equation with Helios-Sun and the thematic emphasis of the temple's iconography upon the return of light and spring.

¹⁶⁸ See also Athena Aphaia's presence at Bassae precinct, Cooper, F. A., *v.I. The architecture*, 1992, pp. 62-65.; Cooper 1978, p. 185, fig. 70.

We have already noticed that Hesiod remarks on the importance of the signs in the sky in both practical matters of life (e.g., agriculture, sailing) and also the cult and worship of the Gods and Goddesses and the various minor deities by indicating the proper time and dates for these practical

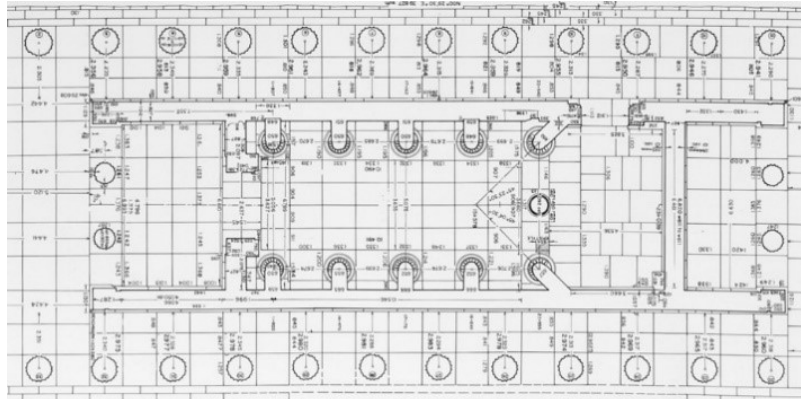


Figure 21. Part of the plan of the temple with actual dimensions; the diagonal lines in the cella mark the point of convergence of the extension of the axis of the angled spur walls.

practises and for the celebrations, sacrifices and libations. The unique position of the Corinthian column on the centerline of the cella, combined with the north-south orientation of the temple, aligns it with the sun in its daily highest position to the south. The threshold directly behind the base of the Corinthian column also marks the transition from the regular pavement of the cella, to the peculiar pavement of the adyton, rendering the Corinthian column as the pivot of the whole temple and as an element in the state of being between the traversable cella and the ‘off limits’ sacral adyton, acquiring almost an apotropaic/guardian character. The carefully made maeander pattern on the abacus of the Corinthian capital (Fig. 7) is associated by Cooper with techniques of ancient map making, the subdivision of the circle into 360 parts—which predates two and a half-centuries the first use of the 360° circle that is credited to the Greek astronomer Hipparchos (ca. 194-120 B.C.)—, and to Anaximander and his followers who used architectural similes, such as the drum of a column in their cosmological speculations: "*on the physical nature of earth and heavens*".¹⁶⁹ According to Cooper: "*the intellectual motivation that led to the conception of the pattern on the abacus of the Corinthian capital is inherently philosophical and religious.*"¹⁷⁰ Moreover, there is the puzzling diagonal approximately 45° orientation of the two southernmost spur walls that are aiming towards a point of interest in the cella floor directly in front of the Corinthian column and slightly but definitely offset from the lateral alignment axis of the spur walls, and the existence of the eastern opening at the adyton (Fig. 21). This point of interest in the cella

¹⁶⁹ Cooper, F. A., ‘The Corinthian Capital’- The abacus and ancient map making, v.I. *The architecture*, 1992, pp. 318-324.; The 360° circle was introduced by Hipparchos into Greek mathematics and astronomy as a functional determination of latitudes, while Eratosthenes of Cyrene (250 B.C.): "*had employed a 60-part subdivision of a circle for zones of the earth.*", Cooper, ‘The Corinthian Capital’ v.I. *The architecture*, p. 321, note 80.

¹⁷⁰ Cooper, ‘The Corinthian Capital’ v.I. *The architecture*, 1992, p. 324.

floor together with the peculiar position of the Corinthian column, the adyton's pavement pattern and the eastern opening, identified by Cooper as a window, triggered various proposals for the position of the statue of Apollo, initially of bronze and then of wood with marble extremities,¹⁷¹ that include: in front of the Corinthian column (Stackelberg, Dinsmoor), the middle of the west adyton wall (Cockerell), behind the Corinthian column at the south wall of the adyton (Blouet), and finally the southwest corner of the adyton (Cooper). However, all the aforementioned elements are also related with the temple's intentional design in relation to the sun's annual movement in the sky.

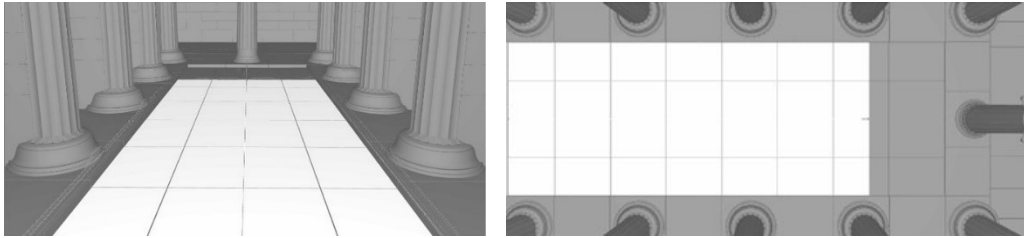


Figure 22. At summer solstice the rectangular patch of sunlight from the hypaethral opening falls almost exactly on the width of the rectangle of the cella floor (sunken part) and up to the point of interest. The author placed the vertical marker at the point of interest in the cella to assist in the identification of that point. Views from inside the cella and from the top of the hypaethron.

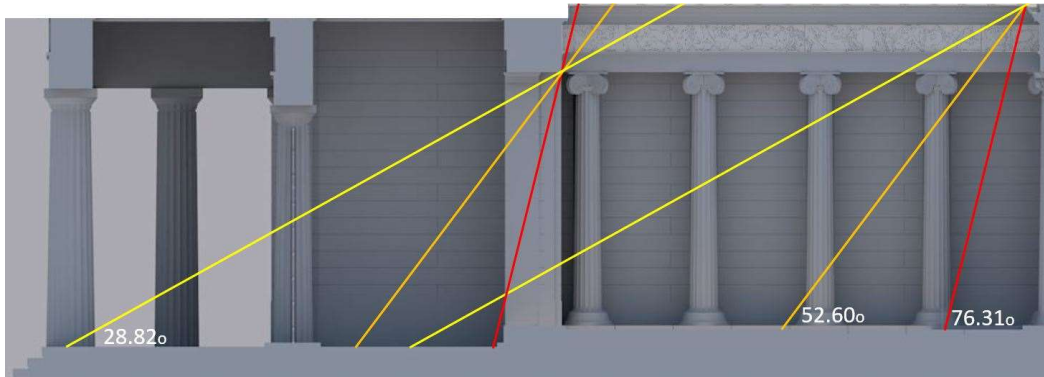


Figure 23. Longitudinal section of the northern part of the temple showing the sun's rays that define the limits of the lighted floor surface, when the sun is at the highest altitude during the day to the south of the temple (summer solstice-red, fall and spring equinoxes-orange, winter solstice-yellow).

The yearly seasons and climate difference on earth are affected by the length of daylight and thus, warmth due to the varying angles of the sun's rays. Examining the hypaethral solution of the temple, based on its unique coordinates¹⁷², and the sun's distinctive positions in the sky through the year 420

¹⁷¹ Dinsmoor 1933, p. 213.

¹⁷² Lirintzis, Ioannis and Vasileiou, Helen, 'Were Greek temples oriented towards aurorae?', *Oxford Journals, Astronomy and Geophysics*, Volume 47, Issue 1, 2006, table 1, table 2., Azimuth of the temple of Apollo Epicurean, Bassae: 2° 36', Coordinates: Lat. 37° 25' 45" / Long. 21° 54' 0,4".

B.C.¹⁷³, shows that the summer and winter solstices were highly significant. The sun has two annual distinct positions that are easily observable, a low and high position through the year (solstices), with two moments lying in between at the two days of the year when day and night are equal in length (the equinoxes). Examining the winter solstice, sun at its lowest position 28.82°, summer solstice, sun at its highest position 76.31°, and the two equinoxes, sun at its middle position 52.60°, several interesting convergences are found with the temple's design, in plan and section. The first thing to observe is how at summer solstice when the sun is at its highest altitude the light allowed from the hypaethral sima,¹⁷⁴ falls almost exactly on the width of the rectangle of the cella floor (sunken part) and up to the point of interest

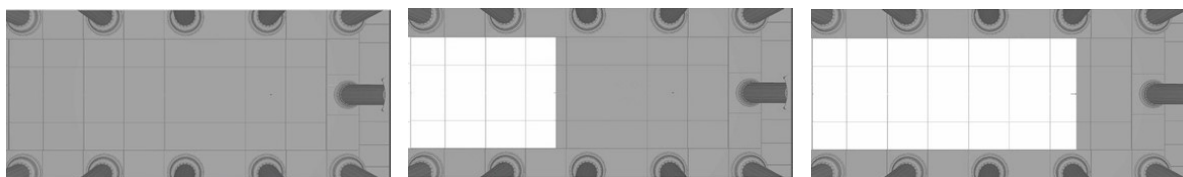


Figure 24. Top view from the hypaethron. Notice the gradual annual drift of light from winter solstice, to equinoxes, to summer solstice. From no light falling on the cella floor, to approximately half of the cella floor being lighted in the equinoxes, and to its uppermost limit close to the intersection point of the angled southernmost spur walls.

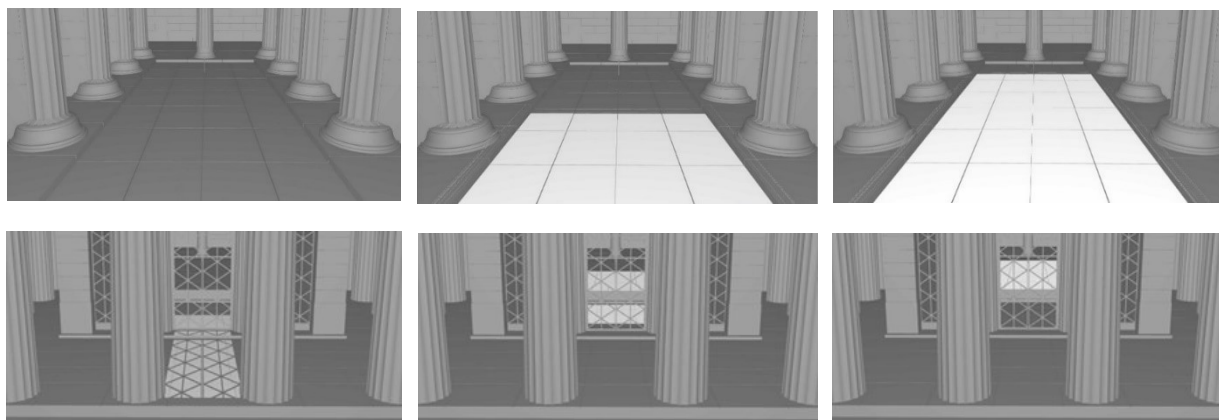


Figure 25. Gradual annual drift of light from winter solstice, to equinoxes, to summer solstice. View of the interior from the entrance (upper tier) and from outside the temple (lower tier), always looking south.

in the cella (Fig. 22). The longitudinal section (Fig. 23) shows the inclinations of the sun's rays at the moment of the sun's highest altitude of the day in winter and summer solstices and at the equinoxes, when the sun is to the south of the temple. For each sun position two architectural elements define the northern and southern limits of the lighted floor surface at this part of the temple. These two elements are the

¹⁷³ Based on ephemerides for the sun from the Horizons System., Giorgini, JD and JPL Solar System Dynamics Group, NASA/JPL Horizons On-Line Ephemeris System, < <https://ssd.jpl.nasa.gov/horizons/> >, data retrieved 2017-09-24.

¹⁷⁴ The hypaethron sima is based on the sima that is restored at the closed roof by Cooper and Kelly, see 'The Marble Roof by Nancy J. Kelly', v.1. *The architecture*, 1992, pp. 257-279.

southern edge of the lintel of the cella's entrance and the sima above the Corinthian column. In the north part of the temple we notice the gradual drift of the light from the axis running through the centers of the north peripteral Doric columns and the approximately middle distance of the pronaos floor in the winter solstice (yellow lines), to the entrance's step and to the point of interest in the cella floor where the diagonal southernmost half-columns intersect in the summer solstice (red lines) (Figs. 23, 24, 25). These

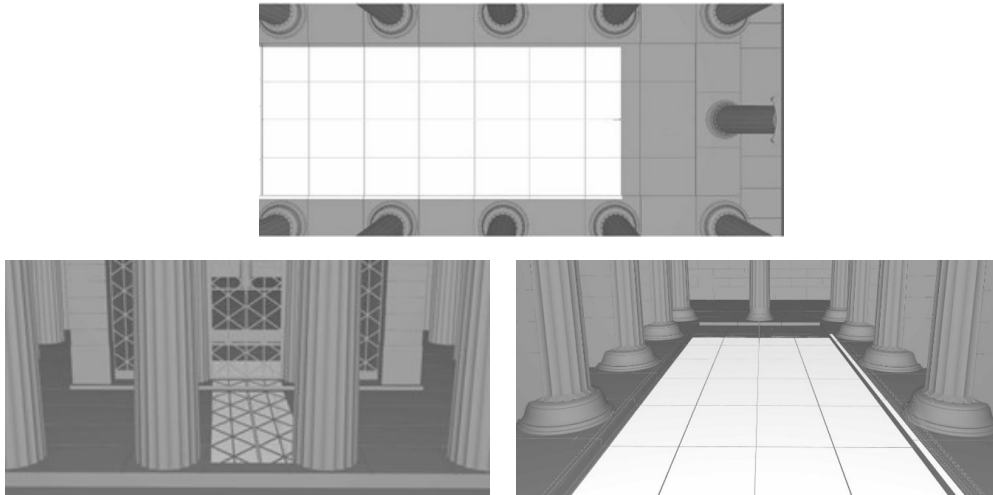


Figure 26. All shadows are simulated with the temple oriented directly to the North. The temple is actually oriented $2^{\circ} 36'$ E of N. These three images reflect that difference and should be compared with those in Figs. 24, 25. It is evident that the difference is minimal, and in any case only lasts for a few minutes.

two days define the northern and southern limits of the lighted area throughout the year (Figs. 23, 25). At the two equinoxes (orange lines) the sun's rays light the pronaos floor up to the approximate middle of the cella floor. At the winter solstice the lighted areas are the peristyle and the pronaos, at the equinoxes the pronaos and cella, and at the summer solstice only the cella. In other words, the illuminated rectangle moves from wholly outside the cella (winter solstice), to wholly inside the cella (summer solstice), straddling the entrance at the equinoxes. All shadows are simulated with the temple oriented directly to the North, that is if it was built perfectly aligned to the North. The temple is actually oriented $2^{\circ} 36'$ E of N. The three images in Figure 26 reflect that difference and should be compared with the Figures in 24 and 25. It is evident that the difference is minimal, and in any case only lasts for a few minutes.

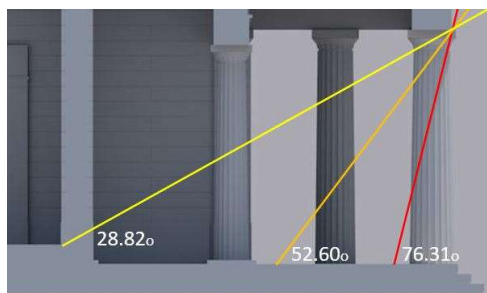


Figure 27. Longitudinal section of the southern part of the temple, showing how the sun's rays at winter solstice with the sun at its highest altitude during the day define the southern edge of the adyton's floor and meeting point with its south wall (summer solstice-red, fall and spring equinoxes-orange, winter solstice-yellow).

At the southern part of the temple the winter solstice sun's rays—when the sun is at the highest altitude to the south of the temple—which are defined by the Doric architrave, mark the meeting point of the adyton's floor and its back wall (yellow line). This alignment assumes Ictinus either knew about sectional projection or mocked it up with a temporary frame during construction. The sun's rays are then found near the threshold of the opisthodomos at the equinoxes (orange line), and approximately at the back limit of the south Doric peristyle columns at the summer solstice (red line) (Figs. 27, 28a-d). The above further affirm that the temple's elongated proportions carefully respond to the angles of the sun's rays.¹⁷⁵

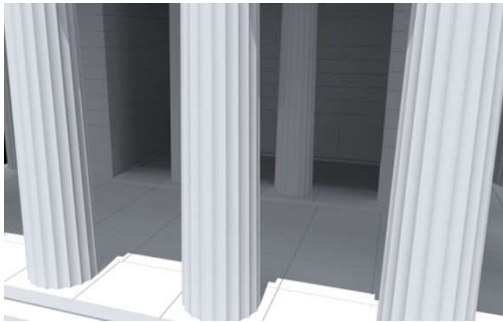


Figure 28a. View towards the opisthodomos at the summer solstice when the sun is at the highest altitude during the day to the south of the temple.

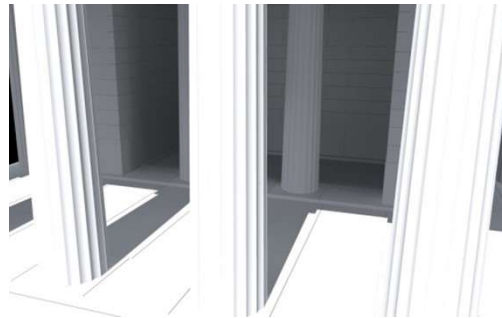


Figure 28b. At the equinoxes.

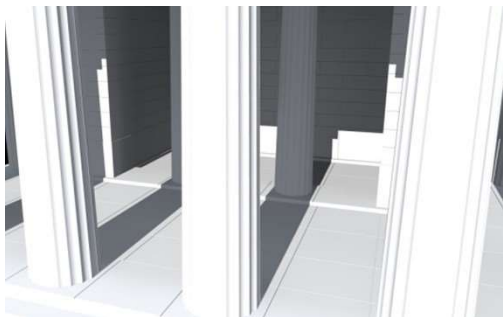


Figure 28c. At the winter solstice.

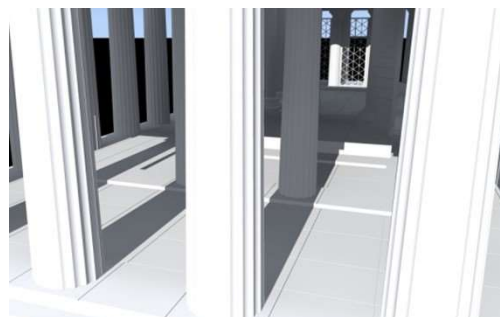


Figure 28d. Model without the walls of the adyton and the opisthodomos at winter solstice when the sun is at the highest altitude during the day to the south of the temple, showing the sun rays defining the southern edge of the adyton's floor and meeting point with its south wall.

As we have already seen, at the highest position of the sun in the year, 76.31° at the summer solstice when the sun is south of the temple, the patch of sunlight on the cella floor reaches the intersection point

¹⁷⁵ The correlation of the temple's design to the sun's annual movement supports Kelly's explanation of the 'enigmatic' difference that she has identified between the size of the adyton of the Archaic temple to that of the Classical, which could be explained if it is: "*connected with the dramatic effect of the rays of the rising sun reaching the cult image*", see Kelly 1995, pp. 240-243.

of the 45° angled southernmost spur walls with their Ionic half-columns. This requires a specific proportional relation between the overall height from the base of the Corinthian column to the uppermost limit of the hypaethron's sima and the width of the interior of the cella with its two 45° angled spur walls. It demands an architect's well planned, accurate design and knowledge of solar phenomena—although easily tested on-site with temporary structures—. What seems to have been achieved is the orchestration of the peristyle, pronaos, opisthodomos, and cella in relation with the annual sun phases.

The east opening of the adyton has been an element of intense inquiry for its role in the temple's design. First it should be noticed that in front of it there is a small open area very close to the edge of the plateau where the temple is situated urging someone not only to look towards the eastern horizon and observe the rising sun, but also to the imposing mountainscape and especially Mt. Lykaion's two peaks between east and northeast, the southern one (ca. 1382 m. /ca. 37° 26' 47" N, 21° 59' 18" E) where the fire and smoke of Zeus' ash altar would be easily observable and the northern one (ca. 1400 m. /ca. 37° 27' 26" N, 21° 58' 27" E). Also, the east opening is looking towards Delos the birthplace of Apollo and Artemis and the Didyma sanctuary the famous oracular center of Apollo, with the temple at Bassae situated in a latitude very close to those of the sacred island and the hypaethral temple of Apollo in Asia Minor (Bassae: 37° 25' 45" N, Delos: ca. 37° 24' 09" N, Didyma: ca. 37° 23' 05" N).

The intentional relation of the temple's design with the annual movement of the sun is also confirmed by another solar phenomenon this time in relation to the east opening of the adyton. Cooper has proposed that the purpose of the opening was to funnel the sun's rays into the adyton at sunrise, in order to light on a particular day the southwest corner of the adyton, based on the in-situ observation of the effect of light streaming through it at mid-summer day, in the form of a double ray, one that lights the center of the



Figure 29. Areas of light on the adyton wall.

south adyton wall, directly behind the base of the Corinthian column, while the other marks the southwest corner (Fig. 29).¹⁷⁶ The commonly perceived as irregular arrangement of the adyton's pavement is actually responding to this effect. Dinsmoor has noted how the pavement creates a pattern concentric

¹⁷⁶ Cooper 1968, pp. 106, 108-109.; On the sitings of the Archaic and Classical temples in relation to the light of dawn entering the adyton, see Cooper, v.1. *The architecture*, 1992, p. 134.

around an object placed against the middle of the south adyton wall directly behind the column.¹⁷⁷ At the same time, however, the overall arrangement of the adyton's pavement also implies an oblique direction which points towards the southwest corner, especially when it is compared to the north-south orientation of the cella's sunken pavement (Fig. 21). Cooper has argued that the pavement was designed so: "*that the light would diagonally intersect certain stones*" as part of his earlier proposal for the existence of an eastern door with two leaves at the adyton, with the southern one fixed in order to mask the beam of light that hits the center of the south adyton wall.¹⁷⁸ The restoration of the eastern opening as a window allows both beams to enter into the adyton and thus to light the areas marked by the pavement's concentric pattern and its diagonal orientation towards the southwest corner.

We can see that indeed the sun's rays in the adyton at the summer sunrise are part of an annual choreography, that can be observed by following the movement of the sun's rays at the sunrise hours through the year. The morning sunlight due to the changing position of the sun throughout the year relative to the east traverses the interior floor of the temple and its southern and western walls. At summer solstice two beams of light hit, one the center of the adyton's southern wall and the other its southwest corner, then as one beam it hits the west wall of the adyton on the equinoxes when the sun rises directly at the east. Finally, again as one beam it hits the Corinthian column towards the main cella in the winter solstice, when the sun rises to the southern-most position of east (Fig. 30a-c).¹⁷⁹ The two limital positions



Figure 30a. Light entering the adyton. Summer solstice sunrise.



Figure 30b. Light entering the adyton. Spring/Fall equinox sunrise.

¹⁷⁷ Dinsmoor 1933, p. 231.

¹⁷⁸ Cooper 1968, p. 108.; Cooper dismisses Dinsmoor's identification of a concentric pattern in the adyton's pavement, see Cooper 1968, p. 108, note 50.

¹⁷⁹ The vertical marker at the point of interest in the cella is placed by the author to assist in the identification of its position.

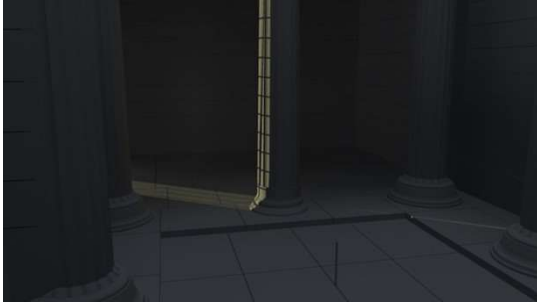


Figure 30c. Light entering the adyton towards the cella and illuminating the Corinthian column. Winter solstice sunrise.

of the sun's rays/lighted area are the winter and summer solstices with the two equinoxes in between. Furthermore, the yearly limital position at winter solstice is marked by the angled position of the eastern spur wall and the diagonal arrangement of the floor slabs. Two elongated slabs, oriented north-south, of the cella's pavement directly in front the Corinthian column, along with two rectangular slabs that flank its base, two elongated slabs of the threshold that are also oriented north-south, but clearly of less width than those in the cella—notice how a small part of the column's base also stands on the threshold—, and two slabs of the adyton, together they define two diagonals (Fig. 32 - slabs highlighted with orange). The slabs' arrangement complements the angled orientation of the spur walls (Fig. 32) and the likewise angled orientation of the volutes of the Corinthian capital (Fig. 7). These floor slabs together with the angled spur walls anticipate the diagonal light that comes into the cella from the adyton eastern opening at sunrise hours during the winter period. Specifically, on winter solstice, the sun's light after illuminating the Corinthian column (Fig. 31a) it then slowly moves towards the point of interest in the cella (Figs. 31b-c). At that moment a ray of light, permitted by the aperture that is formed by the exterior Doric columns and the northern jamb of the adyton's opening, passes very close to the point of interest in the cella floor towards the middle of the western spur wall and then vanishes (Figs. 31a-c, 32, 33a-b). After that day the whole process reverses. The Corinthian column is illuminated from the 'new and young' rising sun at the day of the year when light starts gradually to prevail again over darkness, witnessing the sun's 'rebirth' after a continuous decline in the sky after the fall equinox, and again highlighted, as we have seen, in the summer day when the sun is directly on top of the column at its highest altitude in the whole year, thus, 'triumphal' position (Figs. 22, 26). This suggests that the temple was hypaethral, however, since the current material at the site seem to support the possibility of beams crossing the cella from side to side¹⁸⁰ and there was an interruption during the temple's construction¹⁸¹, it is possible that the temple was initially meant to have a hypaethral opening which was replaced by a flat ceiling and a roof—with openings or not—.

¹⁸⁰ For Dinsmoor's argumentation over a wooden ceiling see p. 33 note 159.; For Cooper's restoration of a stone ceiling see p. 33 note 161.

¹⁸¹ The work on the temple stopped at 421 B.C. and recommenced at ca. 414 B.C. due to Sparta capturing Phigaleia (421 B.C.), invading and keeping garrisons in the area, Cooper, v.1. *The architecture*, 1992, pp. 5, 80.



Figure 31a. Light entering the adyton towards the cella and illuminating the Corinthian column. Winter solstice sunrise.

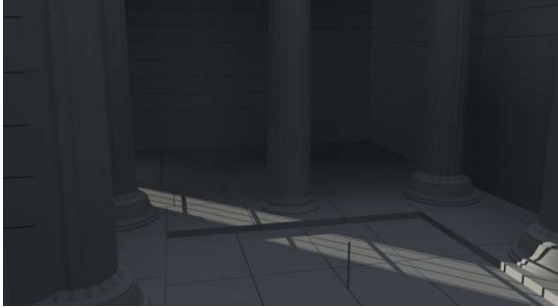


Figure 31b. Light entering the adyton towards the cella. Winter solstice sunrise.



Figure 31c. Strip of light entering the adyton towards the cella. Winter solstice sunrise.

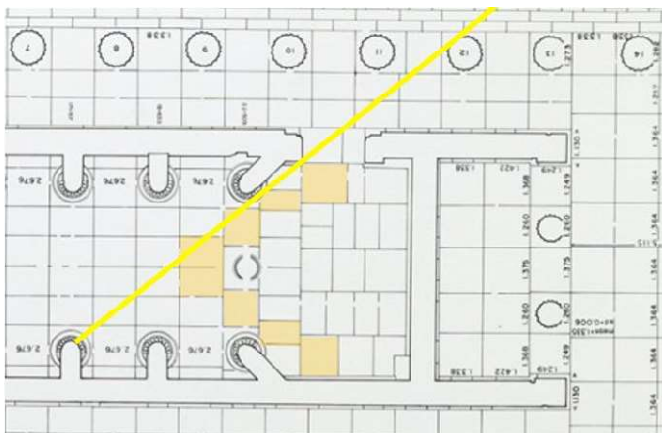
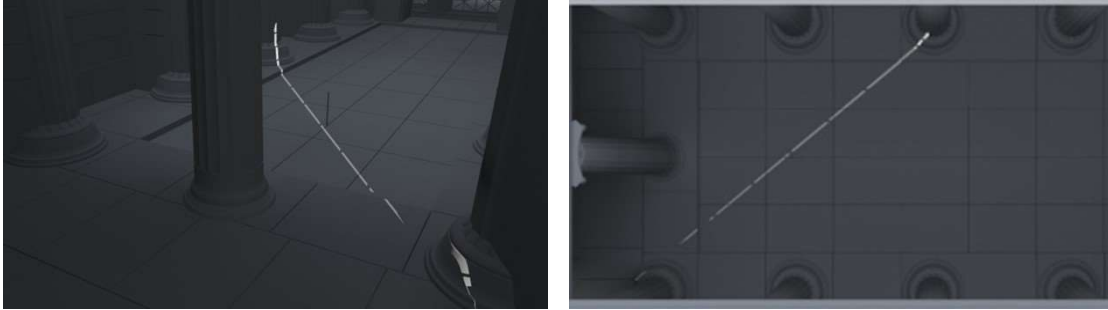


Figure 32. Strip of light (yellow line) entering diagonally the adyton towards the cella, and marking the point of interest in the cella floor at winter solstice sunrise—early morning hours (see also Figs. 31c, 33a-b). The arrangement of the floor slabs (highlighted with orange), complements the angled orientation of the spur walls and the likewise angled volutes of the Corinthian capital.



Figures 33a-b. Strip of light entering from the adyton's east opening at morning of winter solstice, view from inside the adyton towards the cella (left) and from the top of the hypaethral opening (right).

Conclusions

Solar effects of this elaboration are rare in Classical architecture. It appears that the uniqueness (and possibly the remoteness) of the cult and its site, whose archaic temple most probably contained a like solar effect in relation to its adyton's east opening,¹⁸² can account for the three-fold hypothesis for which I have argued: a) that the temple was hypaethral, or was initially meant to have a hypaethral opening which was replaced by a flat ceiling and roof, embracing in this way the meteorological phenomena and the passing of the seasons, central to the cults of Zeus *Lykaios* and Demeter-Persephone, b) embodying Apollo's/Helios' movements that were crucial for the fertility of land, and c) that solar effects were deployed consistent with the temple iconography and that Ictinus had the primary architectural imagination to create such a combination of orthodoxy and originality. On this basis I would argue that Ictinus intentionally oriented the temple's design to the unique inclinations of the rays of the sun during the year, emphasizing the importance of the Corinthian column as its central element. In this respect Pausanias' characterization of the temple of Apollo *Epikourios* as the second most "harmonious" in the whole of the Peloponnese,¹⁸³ could be a praise for its proportions, or for the precision and quality of the stone cutting and joining, to which should be added its alignment and "harmonious" intergration with the celestial world and the kosmos, as some scholars have speculated in their interpretation of Pausanias' passage.¹⁸⁴

Ictinus involvement in the design and building of the Parthenon and then the building of the great hall, the Telesterion at Eleusis, prior to the temple at Bassae, brought him in close contact with the priests

¹⁸² Kelly argues that amongst other elements, the positioning of the east doorway (restored by Cooper as a window, see p. 33 note 164) to accommodate the sun's rays effect in the Classical temple in relation to the illumination of the southwest adyton corner is a faithful reproduction of a physical feature of the Archaic temple, Kelly 1995, pp. 243, 262-263.

¹⁸³ Pausanias 8.41.8.

¹⁸⁴ Rykwert 1996, p. 502.; On the word *ἀρμονία* and its interpretations in the passage of Pausanias 8.41.8., Pollitt, J. J., *The ancient view of Greek art: Criticism, History, and Terminology*, New Haven: Yale University Press, 1974, pp. 153-154.

and priestesses, the rituals, the artifacts used in those rituals and their sacred and symbolic meanings; indeed this would have been necessary in order to adequately design the great hall for the initiation ritual. This further implies that he was initiated and learned first-hand the Goddesses' mysteries—although there is no written or archaeological evidence for this—, perhaps motivating him, together with the presence of Phidias work at Olympia, to accept the commission to build a temple and to introduce the new order in the remoteness of Arcadia, but rich in traditions closely related to the mysteries and the origins of Zeus (for Pausanias, Arcadia was something of a compendium of archaic Greek religion). Whether Ictinus lived to see the temple at Bassae: "*through to completion is*", however, "*an unanswerable question.*"¹⁸⁵

The presence of a kindred Demeter/Persephone cult near Bassae points to a persistent local theme: Apollo's and Pan's roles in assuaging the anger of Demeter and Zeus. In Phigaleia Demeter's mourning was remembered by her image; and these must be placed alongside the myths of savage sacrifice on Mt. Lykaion in relation to the 'magical' rain evocations of Zeus. These two sites preserve the collective traumatic memory of the extreme punishments attributed to these two deities that almost brought about the extinction of the human race. The barren infertility of the land, from the grief of Demeter, who withheld the gifts of wheat, corn and fruits leading to the destruction of agriculture and pasture, the subsistences of civilized life, whose famine stimulated the repressed savage and wild part of human nature causing impious acts such as cannibalism and Zeus' great flood provoked by these acts. Apollo/Sun helps appease Demeter's grief and protect her gifts, while Apollo the ephebe ideal kouros along with Artemis help the youth to properly come into manhood and womanhood and accept their roles as mature fathers-warriors/defenders and mothers-caretakers of the community. Apollo *Epikourios* seems already, at least at the time of the construction of the temple at Bassae, to have been perceived as taking part in the myth of Zeus' birth and coming into adulthood. That becomes apparent in the conflation of Apollo *Epikourios* and Pan *Sinoeis* with Apollo the *Parrhasian* and Pan of Mt. Lykaion, in the Megalopolis agora and the dedication of the Apollo statue from Bassae as part of the *Lykaian* sanctuary in Megalopolis.

The temple's orientation and northern metopes seem very appropriate, because the figures celebrate through dancing the return of Apollo from the Hyperborean fertile land in the far North. The Corinthian column too, faces North toward the Hyperborean realm beyond the home of the North wind, the eternal garden where people lived under the blessing of Apollo, untouched by war, hard toil, old age and disease.

¹⁸⁵ Cooper, v.1. *The architecture*, 1992, p. 379.; If instead Ictinus had worked first at Olympia next to Phidias, as a native Elean, and then at Bassae prior to the Parthenon, as proposed by Dinsmoor (Dinsmoor 1973, p. 154) Ictinus would have been exposed to the intimate mythical relations between the two major cult centers of Zeus in the region, at Olympia and on Mt. Lykaion, and potentially was initiated at the mysteries of the Goddesses—present at Phigaleia and the surrounding area—, prior to his arrival in Athens.; Dinsmoor also identified the style of two periods at the temple and potentially of two different men, Dinsmoor 1933, p. 225.

By facing North the column is seen by the worshippers aligned with the sun as it traverses the south of the temple high up in the sky, and its base and shaft lighted at sunrise during the winter period through the eastern opening. The actions of Apollo-Helios, integrated as we have seen in the design and the orientation of the iconography of the temple, signals both the victory over darkness and the coming of spring, assisting with his warmth and light the growth of vegetation. The Corinthian capital itself here shows the importance of philosophy and cosmology for its creator through the meander pattern of its abacus, and presents the acanthus leaves, vegetation, at its vigorous moment topped by an anthemion-palmette-flower. The advent of spring marked not only the regenerative fecundity embodied in Aristotle's *physis*, but also the beginning of the part of the year devoted to the *agon* of war, whose warriors seem to have been significant to the cult, and therefore also the transition of ephebes into youth men, celebrated in the wolf-ritual of initiation of Zeus *Lykaios*. The interior fierce battles of the Amazonomachy and Centauromachy revolve around the theme of women and child protection and the prevalence of Greek warriors against foes with the direct assistance of Greek heroes and the Gods/Goddesses. The heroes were for the ancient Greeks and especially the youth the highest paradigms to look up to. Among them, the ideal example of physical power, intelligence and character is represented by Heracles, recognized by the gods with his *apotheosis*. Apollo *Epikourios* at Bassae therefore guarantees and safeguards in its interior the powers of spring, its beauty and abundance, the *agon* of opposites and the cosmic and divine order that sustains the continuation of generations within the cycles of life, the drama of mortal life: human finitude prevails within the *agon* of cosmic cycles of decay and renewal, whilst offering the possibility of overcoming these limits to a select few.

The Corinthian order has been passed on to us since the Renaissance mainly as a symbol of ostentation, because of the Romans extensive use of the order in a decorative manner, for its floral elements and the flexibility of proportions it offered. However as we have seen, the prototype of the Corinthian order appears inside a temple in a remote but highly sacred area. If a grandiose, raffish appearance were wanted, it could have been achieved with the use of the new ornament in a great number of columns and in large urban temples, as an earthly demonstration of wealth, power or as part of a political statement. Instead, the new, third order appears along with the other two in a very specific place and moment in history, associated with a specific deity, in response to an immediate and vivid mythic and ritual context. The reason for the widespread use of the Corinthian order and elevation next to the long established and much older Doric and Ionic orders is therefore not to be found only in its external beauty or as a 'novel' artistic expression. Similarly, the legend of the maiden's funerary basket retailed by Vitruvius (IV.1.9-10) seems somewhat distant from the ethos at Bassae although the motif of death and renewal in springtime retains something of the original. A single Corinthian column and framed by the other two orders is highly unique, however, the use of the three orders together found followers in the

Peloponnese at the temples of Zeus at Nemea and Athena Alea at Tegea. A history of the Corinthian column is out of place here, rather it is sufficient to suggest its role at Bassae.

The singular column has a cosmic significance related to the solar performance and thus the Corinthian order has a special relation to light, the sun, Apollo and the Hyperborean land¹⁸⁶ embodying a double meaning: one connected with the tree-plant world, the regeneration, growth and flowering of vegetation and the other social, symbolizing the coming of age for marriage of young girls and boys—their turning point in life—into womanhood-motherhood and manhood-fatherhood (suitable for war) respectively. Accordingly, we are invited to understand the temple, made from the honey-colored limestone spur on which it rests, as the durable rhythmic framework for a temporal drama of the several divine, natural and cultural rhythms which conditioned the aspirations of any individual, who is potentially embodied in the single generative column, the pivot of the site, supporting the *agon* of Heracles.

¹⁸⁶ For the relation of Apollo's seasonal movements and the land of the Hyperboreans with the Delphic Acanthus Column as a cosmic landmark, and the identification of a Corinthian capital that is depicted on a lid of an Athenian pyxis also as a cosmic landmark and specifically as the *terma* in a chariot race of Eos, Selene, and Nyx, see Ferrari, Gloria. *Aleman and the Cosmos of Sparta*, Chicago: University of Chicago Press, 2008 [2014], pp. 141-147.

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