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CHAPTER I: INTRODUCTION

I PURPOSE AND BACKGROUND

This thesis will address the history and development of round temples in an effort to both define the round temple as an architectural type and situate it within the repertory of Roman architecture. Round temples, first attributed by Roman literary tradition to the seventh century BC, become popular from the late Republic, when Rome gains access to the architectural and artistic legacy of Greece. In the Imperial period, the type appears widely throughout the Empire. Outside of Rome and central Italy, round temples are most frequent in areas that formed part of the Greek world. The round form continues to be used for Roman temples into the reign of Constantine, when it begins to appear in Christian churches and baptistries. His reign will serve as the endpoint of this thesis, which will start with the earliest round temples of Archaic and Republican Rome.

The history of round temples has not been studied in a comprehensive way since B. Altmann’s fundamental Die italischen Rundbauten (1906). Altmann’s work amassed all the evidence available at the time on prehistoric to Imperial round buildings used for domestic, public and religious purposes. To some extent, it has been supplemented by M. Weber’s Baldachine und Statuenschreine (1990), which discusses Roman round buildings that displayed statues in both sacred and secular contexts. Round temples also appear in collected works on Greek round buildings or tholoi. Since K. T. Pyl’s 1861 publication, Die griechischen Rundbauten in Zusammenhange mit dem Götter- und Heroencultus, tholoi have been examined with regard to their form, function, and development from the Archaic through the
Hellenistic periods. Discussed by numerous authors, tholoi have been addressed most thoroughly by F. Robert (1939), who assigns them a chthonic function, and more recently by F. Seiler (1986) and G. Roux (1992), who conclude that they played a variety of roles from the sacred to the secular.

Many authors have sought to extrapolate from tholoi to Roman round temples, suggesting that they honored hero gods as well as goddesses like Vesta, the patron of the hearth. In their studies of Roman round buildings, Altmann and Weber do not address the religious functions or attributions of round temples. This aspect, like the design and decoration of individual round temples, forms the subject of numerous articles. A few round temples even receive lengthy monographs like the Temple of Hercules Victor ad portam Trigeminam (#44), which is examined by F. Rakob and W.-D. Heilmeyer in their Der Rundtempel am Tiber in Rom (1973).

Previous studies of Roman round temples either discuss them in the context of other round buildings or on a case-by-case basis. This thesis will aim to fill the gap in round temple scholarship by examining them both individually and in unison as examples of an independent architectural type.

II QUESTIONS TO ADDRESS

To define the round temple as an independent type within the context of Roman architecture, it becomes necessary to examine evidence from individual

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2 Robert 1939, 155 and 423-5; cf. Pyl 1861 (as heroa) and Leroux 1913.

3 Seiler 1986, passim; Roux 1992, 177-8; cf. 1984, 170-1, and Weber 1990, 111. They have also been identified as prytaneia (Frazer 1885 and Charbonneaux 1925, 158-78) and odeia (Thiersch 1908-1909, 27-50 and 67-95), while their form has been derived from hearths (Pyl 1861, Pomtow 1910, 52 fol. and 66; and Fiechter 1937, 314-5), huts (Pfuhl 1905, 331 fol., Leroux 1913, Rider 1916, and Hautecoeur 1954, 19-22), and tombs (Leroux 1913 and van Essen 1960, 96).

4 Frazer 1885; Pomtow 1910, 52 fol. and 66; Fiechter 1937, 314-5.
examples with a view to answering questions that pertain to the type as a whole. Foremost among them is simply, ‘Why build a round temple as opposed to a rectangular temple?’ Though not uncommon, round temples are vastly outnumbered by rectangular temples in both Italy and the provinces. This fact would suggest that round temples had some intrinsic appeal which motivated their founders to employ the round form. This appeal could be aesthetic or, as Seiler and Roux have suggested in connection with Greek tholoi, could be explained by religious, social, or topographical factors.

To determine which, if any, of these considerations played a part in the development and use of Roman round temples, this thesis will examine how ancient Romans viewed the round form, specifically round temples, as well as how they founded and located them to see whether this process had an impact on the temples’ design. Additionally, it will ask if any particular gods received round temples and if their cult requirements stipulated the use of the round form. As patrons played a significant role in determining the appearance of their temples, their aims and agendas will be addressed in so far as these may shed light on their choice of form. From a topographical perspective, the settings of round temples will be examined to see if they were better enhanced by round than rectangular buildings.

Moreover, the materials, techniques and ornaments employed by round temples will be evaluated to determine whether they are comparable to those used in rectangular temples. How well they adhere to contemporary trends in construction may help to situate them within the context of Roman architecture. Moreover as size and proportions are important parts of the design process, these will be discussed with regard to round temples, and when possible, Roman architecture as a whole.

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5 Roux 1984, 170-1, and see above.
Coupled with an analysis of their design, how the type developed both chronologically and geographically may show whether a single consideration determined their use throughout the millennium in which round temples are known or attested. If not purely religious, social, topographical or aesthetic, this study may show what factors came together in promoting the construction of round temples in Italy and abroad.

III COVERAGE

To best address the questions surrounding the use and development of Roman round temples, this thesis will examine all Classical round temples attested in the Roman world from the Archaic period through the early fourth century AD. Excluding Romano-Celtic *fana*, which owe much of their form and ornament to Celtic traditions, the round temples addressed in this thesis may be defined as round buildings, to which religious functions can be or have been reasonably ascribed. They take the forms of monopteroi, peripteroi and drums, occasionally preceded by porches.

The accompanying map reveals the distribution of round temples throughout the Roman empire, showing the highest concentration in Rome and central Italy followed by Greece and Asia Minor. Chronologically speaking, round temples are attested in Italy throughout the millennium covered by this thesis and in the provinces from the first century BC. Tholoi, studied as comparanda for their form and design, appear throughout mainland Greece between the sixth century BC and the late Hellenistic period.

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6 For an overview of these round, octagonal and square shrines or *fana* (Varro ling. 6.54; Cic. div. 1.90; Suet. Iul. 54.2; Vitr. 1.2.7 and 3.1, 4.1.3 and 5), found throughout western Europe in the early-mid Imperial period, see Horne and King 1980, 523-7 figs. 17.25-9, Rodwell 1980b, 568-70 and 582-3 fig. 18.4 (Britain), and Gros 1996a, 184 and 199-203.
IV ORGANIZATION: SOURCES, METHOD AND CATALOGUE

The materials employed in researching this thesis include archaeological remains, the texts of ancient authors and inscriptions, late Republican and Imperial coins, and other iconographic sources. While some of these sources are ancient like the Severan Marble Plan and sculpted reliefs, others date to the Renaissance when architects and topographers began to express an interest in recording ancient sites. Many of their drawings preserve verbal accounts of their discoveries, which may be confirmed by modern excavation reports.

Using this base, Chapter II will analyze the terms employed by Roman authors to denote or describe round temples, together with Vitruvius’ approach to the design of temples, both round and rectangular. Chapter III will examine the concept of a templum as an essential component in the foundation of any temple building and will see whether this concept had an impact on the development of Roman round temples. This Chapter will also address the first attested round temples in Italy, introducing a chronological construct that will inform the layout of Chapters IV through VII. Set in their historical and architectural context, round temples will be examined from various standpoints including the divinities they honor, their locations, their patrons, their design, and the elements, both architectonic and sculptural, that comprise their decoration. After evidence for both individual round temples and the architectural type is discussed, Chapter VIII will address the issues raised in this Introduction in an attempt to answer the question of why round temples were built in the Roman world.

As an aid to this investigation, Volume II comprises a Catalogue of supplementary material for Roman round temples and their Greek comparanda. This material includes an outline of their topographical contexts, evidence for their dates,
their patrons and their architects, descriptions of their design and physical remains, literary, epigraphical and iconographic sources relevant to their analysis, and an account of their decorative programs. In addition, the dates and extent of their excavations are included together with any disproven theories about their attribution or ornament. Each entry concludes with pertinent bibliography, references to the text, Tables and Charts, which present their dimensions and proportional relationships, scaled Plans, and Plates as illustrations of their context, remains and elevations. Following the Catalogue, this Volume includes any supplemental Plates or Charts required by each Chapter and a full Bibliography applicable to both Volumes.

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7 See Vol. II ‘Notes on the Tables and Charts.’
8 See Vol. II ‘Notes on ancient source citations and the Bibliography’
CHAPTER II: ANCIENT SOURCES ON ROUND TEMPLE DESIGN

I ANCIENT TERMINOLOGY AND CONCEPTIONS OF THE ROUND FORM

*Aedes, templum, tholus, and pantheum*

Latin authors used a variety of terms to denote Roman round temples. Chief among them were *aedes*,\(^1\) *templum*, and *tholus*. While *aedes* and *templum* were common ways of referring to temples, both round and rectangular,\(^2\) *tholus* differed in so far as it expressed the circular form of a round temple without assigning it a religious function. This distinction in terminology is underscored by the fact that *tholus* was also used to designate round dining rooms\(^3\) and market buildings.\(^4\)

The Latin *tholus* is derived from the Greek *θόλος*, a term which F. Robert has defined by analyzing its use in inscriptions and literature.\(^5\) According to Robert, *θόλος*, when employed in connection with free-standing round buildings,\(^6\) denotes their conical or tent-shaped roofs.\(^7\) After the most conspicuous element of their

\(^{1}\) *Aedes* is occasionally qualified by *rotunda* (cf. Serv. *Aen.* 9.406, quoted below). This is comparable to *οικοδόμημα περιφερές* applied to the Greek shrine of Zeus and Aphrodite at Sparta (Paus. 3.12.9-11). Robert 1939, 98.


\(^{3}\) Varro (*rust.* 3.5.12) refers to his aviary-cum-dining room at Casinum as a *tholus*, while Martial (*epigr.* 2.59.2) remarks on a *Caesareus tholus*. The latter can be identified as a dining room, whose remains may lie beneath the triclinium and nymphaea of the Domus Aurea (cf. Cassatella 1986, 555-9, and 1995, 63-4; Cecamore 1994-1995, 11-2, incorrectly links these remains to the Shrine of Vesta on the Palatine, see Chap. V #56). For alternative readings of Martial’s *tholus*, see Rodríguez Almeida 1993d, 213 (Arch of Titus) and Liverani 1996, 249 (Mausoleum of Augustus).


\(^{5}\) Robert 1939, 46-100; cf. Roux 1992, 177-82.

\(^{6}\) *θόλος* can also refer to hemispherical head bandages, cf. Galen 18.788 and 790-1, and Robert 1939, 59-60.

\(^{7}\) Strab. 4.4.3; cf. Suidas, Hesychius, and the *Etymologicum Magnum* quoted by Robert 1939, 47-52. Similarly, *σκίας* or “parasol” may signify the roof shape of round buildings like the Skias in the Athenian Agora (Paus. 1.5.1, #6). Robert 1939, 153-4.
design, individual buildings came to be known by their roofs or θόλοι. Like later Roman *tholus*, their designation as *θόλοι* reflected their form, while their functions ranged from the sacred to the secular.⁸

The Latin *tholus* appears several times in connection with Roman round temples. In laying out guidelines for their design, Vitruvius uses *tholus* to refer to both the conical roofs of round temples and the buildings as a whole.⁹ His two-fold definition is echoed by Servius, who denotes both the Temple of Vesta in the Roman Forum (#57) and the Pantheon (#50) as *tholus*.¹⁰ Moreover, Ovid uses this term to describe the roof of the Temple of Vesta,¹¹ while Martial applies it to a round Shrine of Cybele (#34).¹² A final term which enjoys limited popularity in the Imperial period is *pantheum*, coined to designate round buildings whose plans reflected that of Hadrian’s Pantheon in Rome.¹³

**Cosmic implications of the round form?**

The importance placed by ancient authors on a round building’s roof, reflected in the term *tholus*, is underlined by Cassius Dio in his discussion of Agrippa’s Pantheon (#50). He suggests that Agrippa chose the building’s name “because of its

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⁸ θόλος as an assembly area: IG III, 764 and Paus. 1.5.1 (Skias at Athens, #6), as a hero’s tomb: Paus. 2.27.3 (Tholos in the Sanctuary of Asklepios at Epidaurus, #13), as a temple, treasury or heroon of Phylakos: Vitru. 7. praef. 12 (Tholos in the Sanctuary of Athena Pronaia at Delphi, #12); as a shrine: Athen. 4.141E (the νάος θολουδής on Ptolemy Philopater’s yacht); and as a bath building: Alciphr. *ep.* 3.40, Athen. 11.501c-e, *P.Magd.* 33 and 42, and *P.Zenon.* 59665 (cf. Robert 1939, 57-9 and Nielsen 1990, 7).


¹⁰ Serv. *Aen.* 9.406: *Tholus proprie est veluti scutum breve, quod in medio tecto est, in quo trabes coeunt: ad quod dona suspendi consueverant... Alii tholum aedium sacrarum dicunt genus fabriceae, ut Vestae et Panthei est. Alii tectum sine parietibus columnis subnixum. Aedes autem rotundas tribus diis dicunt fieri debere, Vestae, Dianae, vel Herculi vel Mercurio. Similarly, the Pantheon is referred to as θολουδής by Cassius Dio (53.27, quoted in #50).

¹¹ Ov. *fast.* 6.281-2, quoted in #57.

¹² Mart. *epigr.* 1.70.9, quoted in #34.

¹³ The Mausoleum of Flavius Julius Catervius and his wife Septimia Severina is described as a *pantheum cum tricoro* (*CIL* IX 58.66). However, see Scranton 1951, 3 (Pantheon at Corinth) and Will 1951, 241-4, for Panthea, namely “temples to all the gods,” which were not round.
vaulted roof, which resembles the heavens."\textsuperscript{14} Similarly, Servius likens the roofs of all round temples to the sky,\textsuperscript{15} while Plutarch suggests that Numa intended the Temple of Vesta in the Roman Forum (#57) to imitate the world.\textsuperscript{16} For Macrobius, the oculus of the Roman Temple of Zeus Sebazio at Thrace reflects the shape of the sun that illuminates its interior.\textsuperscript{17} Even Varro’s discussion of his round aviary at Casinum equates its core with the earth and its roof with the heavens, its cupola depicting elements of the sky and the hours of the day and night.\textsuperscript{18}

These sources raise questions about the extent to which architects and patrons employed the round form to convey their cosmological beliefs.\textsuperscript{19} In his controversial article entitled “The Dome of Heaven,”\textsuperscript{20} K. Lehmann supports this connection, citing examples of domes that, like that of Varro’s aviary, depict the heavens. While Lehmann has been criticized both for the paucity of his examples and for their broad chronological and geographical spread,\textsuperscript{21} his conclusions may be examined in light of the few Roman authors who address the idea of the cosmic cupola.

Both Ennius and Varro liken the sky to the vault of the heavens,\textsuperscript{22} while Suetonius describes a ceiling in Nero’s Domus Aurea as rotating day and night like the sun and the stars.\textsuperscript{23} Suetonius’ remark, applied to an Imperial dining room or audience chamber, recalls Martial and Statius, who compare Domitian’s audience hall

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\textsuperscript{14} Cass. Dio 53.27.3.
\textsuperscript{15} Serv. Aen. 1.505.
\textsuperscript{16} Plut. Numa 11.
\textsuperscript{17} Macr. Sat. 1.18.11.
\textsuperscript{18} Varro rust. 3.5.9-12; cf. Stierlin 1984, 130-6 and Chap. IV #38. Based on Varro, Coarelli (1997, 283-4) divides the aviary into four sections: an “aquatic” section populated by fish, a middle “terrestrial” section, where meals were consumed, an upper “air” filled with birds, and a “celestial” cupola.
\textsuperscript{19} Roman conceptions of cosmology were based on astrological ideas inherited from the Greeks, in which the stars and the zodiac played a role in regulating human life. Stierlin 1984, 142-5, and see Chap. III ‘Augural divination in Archaic Italy: defining the Roman templum.’
\textsuperscript{20} Lehmann 1945.
\textsuperscript{22} Ennius quoted in Cic. orat. 3.40.162, and Varro ling. 5.19; cf. Vitr. 7.3.3 and 8.2.4.
to the heavens. This may imply that Domitian’s room was vaulted, like the judgment hall of Apollonius of Tyana. Philostratus compares its dome to “the heavens, covered with sapphire stars.”

The use of cosmic imagery in Imperial settings goes back to the tents of Persian rulers, whose “round awnings were called heavens.” Adopting this tradition after his conquest of Persia, Alexander the Great, known as the Son of Heaven, “had a magnificent tent made … which carried a sky of rich workmanship.” Roman emperors like Nero and Domitian, possibly inspired by Alexander, may have incorporated celestial roofs into their audience chambers to emphasize their status and that of the Imperial cult.

While these sources suggest that cosmic imagery has long-standing associations with divinity and kingship, they do not explicitly state that the structures which displayed this imagery were round. This might imply that celestial symbolism had closer ties to the Imperial cult than to round buildings. In the case of Roman round temples, Plutarch’s suggestion that the Temple of Vesta resembled the world, while surely the terrestrial counterpart of the heavens, may be intended to underline the scope of her authority. Similarly, as Cassius Dio only knew the Pantheon as reconstructed under Hadrian, his affirmation that Agrippa placed a high value on its cosmic symbolism is open to doubt.

24 Mart. epigr. 7.56, 8.26, and 9.91, and Stat. silv. 3.4.47-8 and 4.2; cf. Cass. Dio 77.11.1, and Godfrey and Hemsoll 1986, 204 and 208 n. 64.
25 Philostr. Apollon. 1.25; cf. Ward-Perkins 1956, 211. However, as Philostratus wrote in the 3rd c. AD, his description may not be reliable.
26 Hesychius s.v. ουρανός, cf. Smith 1950, 53 and 81.
27 Plut. Alex. 3.
28 Smith 1950, 82; Ward-Perkins 1956, 211.
29 It is likely that Domitian’s audience hall and the Persian tents were rectilinear.
30 The sun visible through his Temple’s oculus may indicate the source of Zeus Sebazios’ authority, cf. Macr. Sat. 1.18.11.
31 Chap. V #50.
Even though celestial vaults may have formed part of the iconography of ruler cults, based on the evidence supplied by ancient sources, there is little to support Lehmann’s claim that circular forms, particularly domes, were used in Roman round temples as a means to express the astrological beliefs of their founders.

II VITRUVIUS ON ROUND TEMPLE DESIGN (Plates II.1-4)

An ancient author who deals explicitly with round temples, albeit their design rather than their symbolic content, is Vitruvius. They appear in Book IV of his *De Architectura*, where he speaks about the forms and proportions of temples. In Book I, he lays the groundwork for this discussion by outlining the arithmetic and geometric principles behind their design and construction.

The principles that inform Vitruvius’ text have their origins in Greek thought. Among the ideas that appealed to him were measure and the commensurability of parts, defined by Plato as “everywhere identifiable with nature, beauty and excellence.” These were expressed in terms of numbers, particularly simple or round numbers like 6 and 10, which were hailed as perfect by Greek mathematicians and philosophers.

Both measure and commensurability provide means by which proportional systems may be established. That such systems were important to Greek architects is evident from extant buildings as well as from references to lost architectural

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32 Vitr. 4.8.1-3.
33 Vitr. 1.1.4 and 3.1.1-9.
34 Plat. *Phileb*. 64 E. These ideas were founded on the conviction that order, grounded in mathematical relationships, formed the basis for world events. von Naredi Rainer 1982, 11-4; Wilson Jones 1989a, 60, 1989b, 122-3, and 2000, 10.
35 The Euclidians favored 6 (Eucl. *elementa*. 7. def. 2) due to the proportional relationships between its factors (cf. Vitr. 3.1.6), while the Pythagoreans preferred 10 (Pythag. *Philol*. fr. B4; cf. Vitr. 3.1.5) as the number of fingers on both hands. Gros 1976b, 698-9; von Naredi Rainer 1982, 36 and 40.
treatises. Among them, the treatise of the Hellenistic architect Hermogenes, whom Vitruvius holds up as an authority, addressed the system of proportions he employed in the second century BC Temples of Artemis Leukophryene at Magnesia-on-the-Meander and of Dionysos at Teos. Similarly, building plans preserved at Rome and Ostia show that Roman architects placed a high value on observing mathematical principles in their designs.

Against this backdrop, Vitruvius defines symmetry and proportion as they relate to Roman architecture. For him, *symmetria* is “a proper agreement between the members of the work itself, and the relation of the parts and the whole general scheme, in accordance with a certain part, selected as standard.” This concept, reminiscent of the Greek ‘commensurability of parts,’ relies on the use of a “certain part” or module. By means of proportion, this module, usually defined as the lower column diameter, can be used to relate the building’s parts to the whole.

While symmetry and proportion enable a plan and elevation to be fashioned according to ideal mathematical principles, Vitruvius admits that it may be necessary to adjust a temple’s design in response to questions of perception, utility, and the specifications of the site. These adjustments, made with intelligence and

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36 Vitr. 7. praef.12. Ionic buildings provide better evidence for Greek proportional theories in practice than Doric, as the evolution of the Doric order was both longer lasting and more pronounced. Coulton 1974, 61-86.
37 Vitr. 7. praef.12, cf. 3.3.8.
38 Theodoros of Phocaia also published a treatise on his design for the Tholos in the Sanctuary of Athena Pronaia at Delphi (Vitr. 7. praef.12 and #12).
39 Haselberger 1997, 82; Wilson Jones 2000, 50-7. Of particular relevance here is an elevation which depicts the Pantheon’s pediment, Chap. V #50.
40 Like Greek builders, Roman architects used straight-edges (*euthygramma*), rulers (*regulae*), and compasses (*circini*) to produce architectural plans (*ichnographia*) and elevations (*orthographia*), cf. Vitr. 1.1.4 and 1.2.2. Jacobson 1986, 69; Wilson Jones 2000, 64.
41 As some of Vitruvius’ terms lack clear definitions, caution is advisable when interpreting his design theories. Scholfield 1958, 16-9.
42 Vitr. 1.2.4, cf. 6.2.1.
43 Vitr. 3.3; cf. Scholfield 1958, 25-6. Cicero (*Tim. 4.13*) suggests that Greek architects employed modules as part of their proportional systems. A good example is the Tholos at Epidaurus (#13), which uses modules to determine its intercolumnations. Jacobson 1986, 70 n. 15; cf. Gros 1976b, 677-8.
44 Vitr. 3.1.1, cf. 1.2.2.
common sense, should ensure that *eurythmia* is achieved.\(^{45}\) Vitruvius defines *eurythmia* as the condition whereby “the members of a work are of a height suited to their breadth and a breadth suited to their length.”\(^{46}\) Finally, he recommends that questions of *decor* be considered when designing a building, so that its form, size, and ornamentation reflect its function.\(^{47}\) Taken together, as Vitruvius claims, these principles guarantee that the fundamentals of architecture, namely durability, convenience, and delight, are achieved.\(^{48}\)

Coupled with modules, Vitruvius stresses the importance of establishing simple arithmetic ratios between parts. Occasionally, in the case of complex problems, he recommends that geometry, based on the use of compasses and rulers, be employed,\(^{49}\) although he is wary of incorporating irrational numbers into design.\(^{50}\) Relying on arithmetic therefore, Vitruvius describes the proportions of the ideal man, wherein the principle parts are fractions of the whole and the secondary parts appear as fractions of the principle part to which they belong.\(^{51}\) This system results in a harmonic relationship between parts in line with his conceptions of symmetry and proportion.\(^{52}\)

\(^{45}\) Vitr. 5.6.7 and 6.2.1. Wilson Jones 1989a, 64, 1989b, 135, and 2000, 43 and 59.

\(^{46}\) Vitr. 1.2.3. For the Greek origins of *eurythmia*, see von Naredi Rainer 1982, 16.


\(^{48}\) Vitr. 1.3.2. See Wilson Jones 2000, xi and 40, for a discussion of *ordinatio*, *dispositio*, and *distributio*, which Vitruvius (1.2) includes among his list of principles.

\(^{49}\) Vitr. 1.1.4 and 2.2. He suggested that geometry dictate the plans of theaters (5.6.1-6), the design of Ionic capitals (3.5.5), and entasis (3.3.13), cf. Wilson Jones 2000, 127. According to Wilson Jones (1989b, 133), ancient sources do not mention geometry being used in building elevations.

\(^{50}\) Vitruvius advises that irrational numbers be employed in limited instances, including the design of Doric fluting (4.3.9), Ionic volutes (3.5.5-6), the abacus of Corinthian capitals (4.1.11), and the atria of houses (6.3.3, cf. Vitr. 9.*praef.*4-7, and Peterse 1985, 51-2). His reluctance to use them may stem from the fact that irrational numbers are generally incompatible with modules. Gros 1976b, 671-82.


\(^{52}\) An harmonic scale is used in the design of Attic and Ionic bases (Vitr. 3.5.1-3) and Ionic entablatures (Vitr. 3.5.10-1). Scholfield 1958, 21-3; Gros 1976b, 700-3.
For Vitruvius, architecture should follow nature by ensuring proportional relationships between a building’s parts.\textsuperscript{53} As an illustration of this concept, he outlines the design of his basilica at Fanum, where round, commensurable numbers, namely fractions or multiples of 6 and 10, are related by arithmetic means.\textsuperscript{54} Appropriate for secular buildings, this method of design is of paramount importance in religious architecture, wherein “the excellences and faults endure forever.”\textsuperscript{55}

Vitruvius prescribes specific guidelines for the plans, elevations and orders of temples. In the case of round temples,\textsuperscript{56} he relates their dimensions, via ratios, to the diameter of their podium stylobates.\textsuperscript{57} In monopteroi, the stylobate diameter should equal the height of the columns and three times the width of the stairs, while in peripteroi, the ambulatory and cella represent respectively one-, three- and one-fifths of the podium. Regarding the columns of monopteroi, Vitruvius relates the lower diameter to the column height by 1:10, resulting in a pycnostyle arrangement,\textsuperscript{58} and to the architrave height by 2:1.\textsuperscript{59} Further, in peripteroi, he equates the height of the columns and the diameter of the cella, and sees the height of the roof as one-half of

\textsuperscript{53} Vitr. 3.1.4; cf. Arist. Phys. 199a 15, and von Naredi Rainer 1982, 16.
\textsuperscript{54} Vitr. 5.1.6-7; Wilson Jones 1989b, 124. It is significant that Vitruvius does not rely on modules in his own design.
\textsuperscript{55} Vitr. 3.1.4.
\textsuperscript{56} Vitr. 4.8.1-3.
\textsuperscript{57} Similarly, Vitruvius’ system of proportions for theater architecture (5.6.1-6) is based on the diameter of the orchestra. Jacobson 1986, 70-1.
\textsuperscript{58} Vitruvius (3.3) lays out five possible arrangements based on the relationship of the lower column diameter to the intercolumnations and column heights. By using this measure, he is able to focus on elements of the order’s design which determine its slenderness and help to establish its rhythm. Wilson Jones 1989n, 35 and 61, and 2000, 120.
\textsuperscript{59} As J. Coulton has pointed out, for a monopteral temple whose stylobate diameter is 20 feet and lower column diameter (lcd) is 2 feet, the interaxial diameter of the colonnade equals 17½ feet (the stylobate diameter of 20 minus the lcd of 2 minus ½ as the setback from the stylobate edge necessary to accommodate the column bases, cf. Vitr. 3.5.1 at lcd/4). The interaxial circumference is 17½ times Π or approximately 55 feet, which, when divided by 5 feet as the lcd plus the intercolumnation based on a pycnostyle arrangement (i.e. ½ lcd), results in 11 column spacings. While this works for a monopteros of any diameter (provided that the lcd/4 setback is retained), it presupposes a temple of 11 columns. Moreover, if the same method is applied to peripteroi, the results are less satisfactory unless a larger setback is employed.
the podium diameter. Finally, he stipulates that the finials of peripteroi, in their height and diameter, should reflect the column capitals.

Vitruvius makes some recommendations based on modules in the case of the Doric order, and on lower column diameters for the Ionic and Corinthian orders.\(^6\) The lower column diameter in effect functions as a module,\(^6\) establishing the heights of the Ionic base, capital and architrave\(^2\) and the height and diameter of the Corinthian capital.\(^3\) On Corinthian, the order most widely used during his lifetime, Vitruvius makes a few additional remarks: namely, its columns should resemble the Ionic order and its entablature should include a combination of Doric and Ionic features.\(^4\)

While even the most casual observation of Roman round temples reveals that they follow Vitruvius’ principle of decor, attaining the level of beauty and utility appropriate for their function, only an analysis of their dimensions can determine how well they adhere to his notions of symmetry and proportion.\(^5\) Although their state of preservation varies considerably, the remains of round temples may show what if any modules they employed, whether arithmetic or geometric ratios played a part in their design, and to what extent their plans and elevations were modified to promote eurythmia.

\(^{60}\) Vitruvius (4.1.6-10 and 4.2.1-3) provides fanciful explanations of the origins of the orders. For more plausible derivations, see Wilson Jones 2000, 136.
\(^{61}\) Jacobson (1986, 71) points to the fortress of Herodium in Judea, ca. 20 BC, as an early example of a round building based on a modular plan. However, as he derived its system of proportions from the diameter of the perimeter wall, his module does not adhere to Vitruvius’ definition (see above).
\(^{62}\) Vitr. 3.5.
\(^{63}\) Vitr. 4.1. Using modules based on a division of the temple’s façade, Vitruvius (4.3) addresses the shaft, capital and architrave dimensions suitable to the Doric order.
\(^{64}\) Wilson Jones 1989a, 61. He makes no mention of the modillion cornice, developed in the late Republic, which becomes a feature of Augustan Classicism, see Gros 1976a, 197-207, and Chap. IV ‘The entablature.’
\(^{65}\) See Chaps. IV-VII ‘Proportional analysis.’
I EVIDENCE FOR ROMAN ROUND TEMPLES IN THE ARCHAIC AND EARLY-MID REPUBLICAN PERIODS

A total of six round temples can be ascribed to the period between the beginnings of Rome and the late third century BC. While five of these temples were located in Rome, one was sited at Lavinium. Of the five temples, two may be dated to the seventh century, one to the sixth century, and two to the fifth century BC. Although far from certain, the Shrine at Lavinium (#17) is probably contemporary with a nearby sixth century sanctuary.

Round temples founded in the seventh century BC:

The Temple of Vesta, Forum, Rome (#57)

Located in the Roman Forum, the Temple of Vesta (#57) forms the centerpiece of a complex of buildings closely associated with her cult. Evidence provided by literary and archaeological sources ascribes the Temple to the seventh century BC. In addition to accrediting Numa with its foundation, ancient authors attribute the Temple’s sacra to Aeneas and name Romulus’ mother, Rhea Silvia, an early Vestal or priestess of Vesta. Their dating is substantiated by seventh century

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1 Depictions of round monopteroi on Etruscan bronze mirrors (see Weber 1990, 105-6 n. 553 and 219 cat. M2-3) may serve as additional evidence that round temples existed in Italy as early as the Archaic period.

2 See #17 below.

3 For Vesta’s cult, see Brelich 1949.

4 See #57. Its foundation has also been attributed to Romulus. Richardson, jr. 1992, 412.

5 Among these sacra was the Palladium brought by Aeneas from Troy, see #57.

6 Lugli 1946, 202.
finds uncovered near the Temple, including part of a rectilinear wall\(^7\) and a votive
deposit,\(^8\) as well as by remains of the Atrium Vestae,\(^9\) the Regia\(^10\) and the Domus
Regis Sacrorum,\(^11\) dating from the seventh to the fifth centuries BC.\(^12\)

While the votive objects indicate the heart of the sacred area, the wall formed
one of its limits. Running between the Temple and the Atrium Vestae, it established a
boundary between the sacred area with its Temple and altar,\(^13\) and the domestic
Atrium. Although the wall probably demarcated all four sides of the area, it did not
represent the cult’s *templum*, as the Temple of Vesta was not inaugurated.\(^14\)

According to Ovid, in its original form, the Temple resembled a primitive hut
of wattle and daub,\(^15\) similar to ninth and eighth century BC huts found on the
Palatine.\(^16\) Further, he remarks that a fire burned continuously inside its cela.\(^17\) His
description may reflect both legends about the first Temple and the shape it assumed
in his own lifetime. The first real evidence for its form consists of a set of circular
foundations dated to the late third century BC.\(^18\) They incorporated a large

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\(^7\) Scott 1993a, 11 and 17; Coarelli 1995k, 100-2.
\(^8\) Bartoli 1933, 259-60; Gjerstad 1960, 310-20 (inventory of the deposit) and 372-4; Scott 1993b, 161-5.
\(^9\) For the plan and phases of the Atrium Vestae or house of the Vestals, see Jordan 1886, 216, Bloch
\(^10\) From the Regia, the Rex Sacrorum and the Pontifex Maximus, who assumed the duties of the Rex by
the end of the 2nd c. BC, oversaw the worship and practices of the Vestals. Coarelli 1995k, 97-9 (plan);
Papi 1995, 169.
remains, see Papi 1995, 169-70.
\(^12\) Scott 1993b, 166-7; Papi 1995, 169-70.
\(^13\) In addition to the altar attested by Ovid (*fast.* 4.731-4), the well which contained the votive deposit
and a pit for plantings (a vestige of the *lucus* Vestae?; cf. Cic. *div.* 1.45.101) were sited in this precinct.
Scott 1993a, 16, and 1999c, 130.
\(^14\) See #57 and 'Conclusion’ below. Servius (*Aen.* 7.153 and 9.4) suggests that the Temple did not need
to be consecrated *augurio*, as the senate could not convene while women assembled. Ziolkowski 1992,
212.
\(^15\) Ovid (*fast.* 6.254-60 and 295-8) notes that the Temple was roofed with thatch and walled with
willow.
\(^16\) Scott 1993b, 162-3. Though these huts were rectangular, Etruscan hut-urns (see Andren 1959-1960,
21-59) show that the round form was employed in Archaic domestic architecture.
\(^17\) Ov. *fast.* 6.297-8 and 713; cf. Varro *ling.* 6.32. The smoke may have escaped through a hole in the
Temple’s roof, as illustrated on Neronian coins (see #57). Roux 1984, 164.
\(^18\) Scott 1993a, 11-3.
trapezoidal pit or *penus Vestae*, which may have served as a receptacle for ashes from the sacred fire.\(^{19}\)

The foundations probably mark a rebuilding of the Temple of Vesta after the fire of 241 BC.\(^{20}\) With their date secured by ceramic finds and the remains of a contemporary pavement,\(^{21}\) they prove that, whatever the form of its predecessor, the late third century Temple of Vesta was round.

**The Shrine of the Camenae, Rome (#33)**

In addition to the Temple of Vesta (#57), Numa is attributed with setting up a Shrine beside the spring of the Camenae or Roman Muses at the Porta Capena (#33).\(^{22}\) This small bronze structure,\(^{23}\) possibly fashioned by the famous bronze-smith Mamurias Veturius,\(^{24}\) was struck by lightning and moved to the Temple of Honos et Virtus sometime after its dedication in 205 BC.\(^{25}\)

In the early second century, M. Fulvius Nobilior, who founded the Temple of Hercules and the Muses (#42), is said to have incorporated the Shrine into his new complex.\(^{26}\) As illustrated on the Severan Marble Plan, this complex includes two round structures set on top of a complicated podium. While the larger of the two is linked with the Temple of Hercules and the Muses, the smaller located in front of the Temple may represent Numa’s Shrine.

\(^{19}\) Platner and Ashby 1929, 558; Richardson, jr. 1992, 413. It is less likely that the pit stored the Temple’s *sacra*.  
\(^{20}\) See #57. Livy (26.27.4) notes that the Temple of Vesta was saved from the 210 BC fire, which devastated the Forum.  
\(^{21}\) Scott 1999b, 126.  
\(^{22}\) See #33 and Stambaugh 1978, 560.  
\(^{23}\) The Shrine of Janus Geminus, founded by Numa, was also bronze (Procop. 1.25). Tortorici 1996b, 93.  
\(^{24}\) Prop. 4.2.59-64. Richardson, jr. 1977, 357.  
\(^{25}\) Liv. 29.11.13 (Shrine beside the Temple of Honos). Richardson, jr. (1977, 357) suggests that the move predated 205, when the temple (see Palombi 1996c, 31-3) was rededicated to both gods.  
\(^{26}\) Serv. *Aen*. 1.8.
Though it is tempting to suggest that the Shrine served as a model for Fulvius’ Temple, which honored the Greek Muses, the Plan provides the only proof that the Shrine of the Camenae was round.\textsuperscript{27} Besides the power of tradition, there is little to preclude the possibility that, after it was damaged, the Shrine was remodeled into a new form and design.

**Round temples founded in the sixth century BC:**

**The Temple of Fors Fortuna, Rome (#36)**

Servius Tullius is credited with founding temples to Fors Fortuna at the first and sixth milestones of the via Campana-Portuensis.\textsuperscript{28} While the latter is rectangular,\textsuperscript{29} F. Coarelli has identified the former (#36) with a round building shown on the Severan Marble Plan.\textsuperscript{30} This building lies near the Tiber, which played a pivotal role in her cult. As the protecting deity of travel and transport,\textsuperscript{31} Fors Fortuna was commemorated with a yearly festival,\textsuperscript{32} which involved a procession of boats on the Tiber, accompanied by crowds on the via Campana. E. Simon has reconstructed the festival’s course from the Forum Boarium to the mouth of the Tiber, following the trade route for salt, a vital commodity for Rome and her neighbors. In Simon’s view,

\textsuperscript{27} Frothingham (1914, 309) mentions a round temple on Monte Musino near Veii, which may be Archaic and may represent a dedication to the Muses. However, as its existence is far from certain, this temple cannot shed light on the form of the Shrine of the Camenae.

\textsuperscript{28} See #36. They were two of some sixteen dedications Servius Tullius made to Fortuna at Rome, see LTUR Vol. 2 1995, 267-87.

\textsuperscript{29} For its remains, see Scheid 1990, 150-4.

\textsuperscript{30} See #36 and Coarelli 1992b, 39.

\textsuperscript{31} Her role is emphasized by Fortuna’s attributes of a ship’s rudder and prow on coins, reliefs, and in statuary. Simon 1990, 60; cf. Matheson 1994b, 23.

\textsuperscript{32} The festival, which took place on the 24 June, the \textit{dies natalis} of both Temples (see #36), is among the earliest recorded by the Roman calendars. Simon 1990, 65; vs. Champeaux (1982, 245 fol.; cf. Sabbatucci 1988, 220), who links it to the summer solstice.
Fors Fortuna may have overseen the transport of salt, while the locations of her Temples may indicate important city limits.

Finds from both milestones corroborate the Temple’s early date. At the sixth milestone, third century BC terracotta votives were discovered in the Temple’s foundations, while a sixth century rectangular platform and a votive deposit with Archaic bronze statuettes were found at the first. Similarly, among the remains of the Temples of Fortuna and Mater Matuta, also attributed to Servius Tullius, are foundations almost contemporary with their legendary founder.

While the rectangular platform goes against identifying the first Temple of Fors Fortuna with Coarelli’s round building, the Marble Plan may illustrate it according to a later reconstruction.

The Shrine of the Penates, Lavinium (#17)

Late Republican coins and Imperial medallions illustrate a round Shrine intended to house the Trojan Penates at Lavinium (#17). This Shrine, shown together with an altar and a laurel tree sacred to their cult, may have stood near the Sanctuary of Frutis, an Italic version of Venus. Since the Sanctuary commemorated Venus as Aeneas’ mother and the Shrine may have contained the Penates he brought

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33 Simon 1990, 64-6.
34 Coarelli (1992b, 44-5) compares the Temple at the first milestone to those of Fortuna and Mater Matuta in the Forum Boarium, which signaled the limits of the pomerium, and notes that the temple at the sixth milestone, together with the Temple of Dea Dia (#35), indicated the end of the *ager Romanus antiquus*.
36 Visconti 1860, 415-7; Visconti and Lanciani 1884, 27-8; Scheid 1990, 150-4.
37 Pisani Sartorio 1995, 281-2. In addition to Servius’ foundations, Fortuna was venerated at Praeneste and Antium, two major sanctuaries in Latium that are thought to have originated in the Archaic period.
39 See #17 and Palombi (1997, 444 n. 33) for a round shrine of the Penates depicted on the Ara Pacis. Lavinium was also the site of Aeneas’ round heroon. Guarducci 1971, 82.
40 See #17.
41 Strab. 5.3.5-6; Fest. p. 80.18 L; Mela 2.71; Plin. *nat.* 3.58. Palmer 1974, 51.
to Italy, it is possible that they were inaugurated together. The thirteen altars, which
make up Venus’ sanctuary range from the mid-sixth century BC to the third century
AD; perhaps the Shrine of the Penates was erected as early as the sixth century.
However, since the yearly festival connected with it is first attested in 137 BC, this
date must remain speculative.

Round temples founded in the fifth century BC:

The Temple of Mercury, Rome (#47)

In 495 BC, sources suggest that the Roman people, empowered by the
Senate, dedicated a Temple to Mercury (#47). They elected the centurion M.
Laetorius to inaugurate the Temple in the vicinity of the Circus Maximus, more
precisely on the slopes of the Aventine near the Circus’ starting gates. This site is
not far from the Forum Boarium, a trading post for which Mercury, as a god with
strong mercantile connections, was uniquely appropriate. In addition to the Temple,
the Senate decreed that a festival be celebrated on its dies natalis, the Ides of May,
and that a collegium mercatorum or Mercurialium be instituted to oversee the festival
and rites connected with the cult.

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42 See #17.
44 Together with their priesthood (cf. CIL X 797), magistrates officiated over yearly sacrifices to the
Penates at Lavinium (see #17). Palombi 1997, 443 n. 31.
45 See #17.
46 The Senate’s decision to erect the Temple of Mercury reaffirmed the Roman people’s victory over
47 Some sources (see #47) suggest that the Temple was also dedicated to Mercury’s mother Maia.
48 See #47.
51 See #47.
52 See #47; cf. Waltzing 1895-1896, Vol. 1: 35 n. 1-2, and Vol. 2: 250, and Zevi 1987, 125-6 (Roman
grain merchants).
Based on a statement of Servius, the Temple, of which no archaeological traces remain, has been identified as round. Servius lists Mercury among the gods to whom round temples were dedicated: *Aedes autem rotundas tribus diis dicunt fieri debere, Vestae, Dianae, vel Herculi, vel Mercurio.*

Of these gods, Vesta received a Temple in the Forum (#57) and Hercules was honored with Temples in the Forum Boarium (#43-4), facing the Circus Flaminus (#42), and beside the Pons Aelius (#41). Although Hermes was celebrated with a round Shrine on Delos (#10), this marks one of the few Temples of Mercury in Rome, while no Roman round temples are known to have commemorated Diana.

The Temple has been linked with a sesterces minted in 172-173 AD. This coin shows a shrine set on a three-step krepis with four herms in place of columns, an entablature, and a rounded pediment that displays Mercury’s attributes. A statue of Mercury, wearing a chlamys and carrying a caduceus and a moneybag, appears in the shrine’s central intercolumnation.

Although its pediment is curved, suggestive of a round shrine, the image on the coin has been seen as the Temple’s pronaos. A fragment of the Severan Marble Plan, which shows the southeast end of the Circus, illustrates part of a construction that could be a rectangular porch. However, as this interpretation depends on the coin, which is not corroborated by sources that link Marcus Aurelius with a restoration of the Temple, it is difficult to justify identifying the “pronaos” and the

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54 For #42-4, see Chap. IV, and for #41, see Chaps. V and VI.
55 See Chap. IV #10.
56 One of a pair of Romano-Celtic round temples at Autun (Augustodunum), ca. 1st-2nd c. AD, may have been dedicated to Diana. Horne and King 1980, 527.
57 These include a tortoise, a cock, a goat, a caduceus, and a moneybag. Combet-Farnoux 1980, 272.
58 Küthmann and Overbeck 1973a, 46-7 no. 87.
59 However, Combet-Farnoux (1980, 268-9 and 272-3) notes that this motif is commonly used in depictions of rectangular buildings like the Temple of Isis in the Campus Martius (as shown on a coin of Vespasian).
60 Platner and Ashby 1929, 339; Kroll 1932, 976.
coin with the Temple of Mercury. It seems more likely, as B. Combet-Farnoux suggests, that the Temple was rectangular and that the coin represents some other shrine founded during Marcus Aurelius’ reign.62

The Shrine of Spes Vetus, Rome (#54)

In 477 BC, a Shrine of Spes, later called Vetus (#54), was erected on the summit of the Esquiline at a site where several aqueducts entered Rome. The foundation of this Shrine is mentioned in the context of Horatius’ victory over the Etruscans, while its location is signaled by a toponym, ad Spem Veterem, which continued to define the area into the Imperial period.

Although no archaeological remains have been identified with the Shrine, P. Hill has proposed that a series of coins issued under Antoninus Pius, ca. 158-160 AD, illustrates it. These coins, which Hill also identifies with the Shrine of the Genius Senatus (#39), show a four-column building with a rounded pediment that shelters a standing cult figure. The cult statue is difficult to identify, but may hold torches as an attribute of Spes. Although Hill describes the image as representing a domed shrine, there is no indication from the numismatic or literary sources that the Shrine of Spes Vetus was round.

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61 See #47.
62 Combet-Farnoux (1980, 272-6; cf. Küthmann and Overbeck 1973a, 46-7 no. 87, and Hill 1989, 37), recognizing Egyptianizing influences in the shrine’s depiction, has identified it as an aedicula built by Marcus Aurelius during his Egyptian campaigns.
63 Spes gained the epithet ‘Vetus’ following the construction of a temple to Spes in the Forum Holitorium during the First Punic War. Coarelli 1999h, 338; cf. 1999g, 336-7.
64 More specifically, the Shrine has been located at the intersection of via Labicana and via Praenestina. Coarelli 1999h, 338.
65 See #54.
66 See #54; cf. Coarelli 1999h, 338, for a detailed discussion of this and related toponyms.
67 Hill 1989, 17.
68 See #54.
69 See Chap. VI #39.
70 BMCEmp IV lxxiv.
Conclusion:

An analysis of the evidence in favor of seventh to fifth century BC round temples yields few conclusive results. This is not surprising considering the nature of the material: legends and myths pertaining to the foundation of Rome and her first public buildings, few archaeological remains, and late iconographic sources.

The problems posed by the evidence are best illustrated by the Shrine of the Camenae (#33) and the Temple of Fors Fortuna (#36), whose round forms are based on interpretations of the Severan Marble Plan. Similarly, depictions of the Shrines of the Penates (#17) and of Spes Vetus (#54) follow after several centuries and probably rebuildings. Closer in date are the foundations of the Temple of Vesta (#57), which assure its round form from the late third century BC. Though they may not reflect Numa’s Temple, votive deposits and a wall from Vesta’s precinct can confirm the cult’s seventh century date.

Of the round temples ascribed to this period, it is also significant that the Temple of Vesta was not inaugurated. The sacred area on which it stood was not defined according to the procedures that predated the foundation of any other temple or aedes. It is therefore invaluable to examine evidence for Roman conceptions of the templum, or ritually delimited precinct, what form it took, and what type and shape of building it accommodated. By determining whether an aedes could be round in accordance with Roman concepts of the templum, it may be ascertained whether round temples were a viable architectural type at this date.

II  AUGURAL DIVINATION IN ARCHAIC ITALY: DEFINING THE ROMAN TEMPLUM
The Etruscans developed an advanced understanding of cosmology at a time when Romans conceived of little more than a universe demarcated by the heavens, the earth and the underworld.\(^71\) Using a system derived from the Greek East,\(^72\) they defined the structure of the universe and employed this structure to interpret signs visible in the sky. By examining the course of signs or auspices, Etruscan augurs determined the viability of actions ranging from founding cities or temples to engaging in battles.\(^73\)

With limited knowledge of the sky, the first citizens of Rome relied heavily on the Etruscans,\(^74\) as well as on Sabine and Oscan augurs,\(^75\) to interpret auspices. Once exposed to the augural arts,\(^76\) they began to acquire a practical knowledge. Romulus reportedly used augural techniques to establish Rome’s pomerium,\(^77\) while Numa is credited with founding the first college of augurs and formalizing the augural rites.\(^78\)

Both the framework and the rites instituted by Numa signify a development in Roman augural practice. As an adaptation and evolution of the Etruscan arts, the Roman system frequently reflected their ideas. Following Etruscan practice,\(^79\) Roman

\(^{71}\) The Romans did not embrace more complex cosmological views until they established contact with Greece and Greek ideas in the late 3\(^{rd}\) and 2\(^{nd}\) centuries BC. Weinstock 1946, 101 and see Chap. IV ‘Introduction.’

\(^{72}\) Sol. 1.7; Dion. Hal. 2.22.3.

\(^{73}\) Cic. div. 1.72 and 2.49; Fest. p. 358 L.

\(^{74}\) Gell. 4.5.1 (the statue of Horatius Cocles in the Comitium is struck by lightning). Dion. Hal. 4.59-61, Plat. 28.2.15-6, Serv. Aen. 8.345, Zon. 7.11.38, Varro ling. 5.41, Liv. 5.54.7, Plut. Cam. 31, Flor. epit. 1.7.9, Arnob. nat. 6.7, Val. Ant. hist. 13, Vir. ill. 8.4, Mart. Cap. 3.223, and Isid. orig. 15.2.31 (Olenus Callenus prophesies Rome’s future imperium).

\(^{75}\) Sabine augury: Cic. div. 1.42.94, 1.47.105, 1.58.132, and 2.33.70, and Varro ling. 5.85 (augury by birds); Oscan augury: Tabulae Iguvinae.

\(^{76}\) While Numa is thought to have learned augural practices in Tarquinia (Strab. 5.2.2), Romulus and Remus undertook their education at Gabii (Plut. Rom. 6; Dion. Hal. 1.84.5).

\(^{77}\) Enn. ann. 77 fol.; Cic. nat. deor. 3.2.5, div. 1.2.3, 17.30, 48.107, and 2.33.70, 38.80, rep. 2.3.5, 9.16, 29.51, leg. 2.13.33, Cato 1.13.33, and Vatini. 6.14; Liv. 1.6.4, 7.1, 3.61.5, 5.52.2, 6.41.4, and 28.18.11; Ov. fast. 4.810 fol.; Prop. 4.6.43-4; fasti Praenestini = CIL XII.1 234; Sert. dial. 10.13.8; Fest. p. 276 L; Gell. 13.14.5; Flor. epit. 1.1.6; Sol. 1.18; Paneg. 10.13; Vir. ill. 1.4; Serv. Aen. 3.46 and 6.779; Claud. 15.28-9; Nepotian. 1.4; Praef. bibl. 23; Schol. Bob. p. 23; Diod. Sic. 8.4.5; Dion. Hal. 1.85-7; Plut. Rom. 9.7; cf. Briquel 1986a, 71.

\(^{78}\) Cic. rep. 2.14. 26, Liv. 4.4.2; Dion. Hal. 2.64.3. Attus Navius was another important Roman augur (Liv. 1.36.6). Coarelli 1999d, 170.

\(^{79}\) For parallels in Oscan and Umbrian ritual, see Catalano 1978, 471, and Stambaugh 1988, 215.
augurs employed points to map out the celestial templum or area for taking auspices.⁸⁰ This templum was then set in relation to other tempula by the process of inauguration.

In his discourse on poetic uses of the term templum,⁸¹ Varro lends insight into the three types of templum employed by Roman augurs: the celestial, the earthly, and the subterraneous.

According to Varro, the celestial templum takes its form ab natura, the earthly from the consultation of auspices, and the subterraneous a similitudine or by reflection of one or both other tempula.⁸² Of the three, the form of the celestial templum is most clearly defined. As Varro suggests, it is taken “from nature,” reflecting the hemispherical shape of the sky as observed from land.⁸³ With the sky as its formal counterpart, the subterraneous templum should be understood as hemispherical or, as archaeological finds suggest, round.⁸⁴ Moreover, if its form reflects that of both the heavenly and earthly templum, then all three, from the evidence of the celestial templum, may be interpreted as round.

The celestial templum:

After describing its form, Varro segments the celestial templum into four parts suggestive of the sixteen components that constitute the Etruscan sky.⁸⁵ Varro’s quadrants conform to the compass, dividing north from south, east from west, and left

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⁸⁰ For these points, see ‘The celestial templum’ below.
⁸¹ While Ennius (ann. 541; cf. Cic. nat. deor. 2.65) describes the celestial templum as the domain of Jupiter, Varro equates the earthly templum with a stage for divine worship (Pacuv. trag. 309-10; cf. Linderski 1986, 2264 and 2275) and the subterraneous templum with a seat for the chthonic gods (Enn. trag. 107-8). For other meanings of templum, see Godfrey and Hemsoll 1986, 207 n. 35.
⁸² Varro ling. 7.8: templum tribus modis dicitur: ab natura, ab auspiciando, a similitudine; [ab] natura in caelo, ab auspiciis in terra, a similitudine sub terra. Cf. Gell. 14.7.7.
⁸³ Varro ling. 7.7.
⁸⁴ See ‘The subterraneous templum’ below.
⁸⁵ The Etruscans divided the sky into four quadrants corresponding to the cardinal points, each of which was subdivided into four sections (Cic. div. 2.42) and linked to the celestial, subterraneous, and earth-bound gods. Frothingham 1914, 306; Weinstock 1946, 115. Weinstock (1946, 121-2) suggests that the bronze augural liver from Piacenza was a direct equivalent of the Etruscan sky.
from right.\textsuperscript{86} This understanding of the sky is reflected in contemporary augural practice. In augury, the celestial \textit{templum} was a \textit{locus designatus in aëre},\textsuperscript{87} namely a place that an augur demarcated by observing a series of points, including the horizon, the pomerium, and boundaries established in relation to terrestrial markers.\textsuperscript{88}

Augurs employed formulas to delimit the celestial \textit{templum} and divide it into quadrants. These formulas, of which Varro preserves an example,\textsuperscript{89} established the \textit{templum} in preparation for the taking of auspices. Based on their consultation, decisions were made on the feasibility of political, social and religious actions. The process of establishing a celestial \textit{templum} and interpreting auspices, therefore, played an essential part in the inauguration of a new earthly \textit{templum}.

\textbf{The earthly \textit{templum}:}

Varro describes the earthly \textit{templum} as a \textit{locus} designated for purposes of augury and auspices.\textsuperscript{90} This site was conceived with certain words, \textit{certa verba},\textsuperscript{91} which probably reflected the formulas augurs used to define the celestial \textit{templum}. Employing similar terrestrial markers, augurs determined the orientation and demarcated the boundaries of the earthly \textit{templum}. Archaeological evidence suggests that the first \textit{templum} took topographical features or areas of religious or political

\textsuperscript{86} Varro \textit{ling.} 7.7; cf. Liv. 1.18.6-10 (Numa’s \textit{inauguratio}), Isid. \textit{orig.} 15.4.7, Cic. \textit{div.} 1.17.31, and Fest. p. 244 and 454 L. Like the Etruscans (Serv. \textit{Aen.} 2.693; cf. Weinstock 1946, 122-3), Roman augurs considered signs visible to the east or left of the sky’s N-S axis lucky, since they originated in the quadrant governed by the celestial gods (Dion. Hal. 2.5.2; Fest. p. 454 L). Weinstock 1946, 123; Linderski 1986, 2280-4.

\textsuperscript{87} Serv. \textit{Aen.} 1.92.

\textsuperscript{88} Linderski 1986, 2287-8.

\textsuperscript{89} The formula he records (Varro \textit{ling.} 7.9) fixed the celestial templum in relation to the \textit{auguraculum} on the Capitoline \textit{Arx}. Linderski 1986, 2269 and 2277-9.

\textsuperscript{90} \textit{Auspicia}, valid for a single day (favorable or unfavorable), held for all magistrates’ actions from joining in battle to founding cities, while \textit{auguria} determined whether gods approved of proposed locations for new temples. Linderski 1986, 2295-6.

\textsuperscript{91} Varro \textit{ling.} 7.8; cf. Liv. 1.10.5-6 (Romulus lays out the \textit{templum} for the Temple of Jupiter Feretrius on the Capitoline).
significance as markers on which to base their orientation. As Roman cities grew, their Cardo, Decumanus and urban plans, together with ritual demands, determined the direction and shape of *templum* sites.

Each earthly *templum* took one of two forms: a site where priests interpreted auguries or a site where magistrates convened and consulted auspices. Among the former were the *auguratorium* on the Palatine, and at least three *auguracula*, on the Capitoline, the Quirinal and the Janiculum. After establishing the *auguratorium* by augural means, Romulus consulted auspices and defined the boundaries of the city with a pomerium.

Both *auguracula*, oriented towards the Alban hills during inauguration, were used in conjunction with meeting places, enabling priests to determine whether the gods approved of specific political actions. F. Coarelli has proposed that the *auguraculum* on the Capitoline Arx corresponded to the Comitium in the Forum, both

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92 While the first *templum* faced south (suggested by the orientation of early temple buildings like that of Jupiter Optimus Maximus), by the late Republic, they opened toward whichever direction afforded the best view of their surroundings. Stambaugh 1978, 564; Godfrey and Hemsoll 1986, 200-1.

93 Stambaugh 1978, 563-4; Catalano 1978, 469-70. For example, the city of Ostia developed around the intersection of its Cardo and Decumanus, while the layout of the Campus Martius at Rome was oriented according to the cardinal points.

94 By facing the Forum Boarium and its Ara Maxima Herculis (see Chap. IV #43-4), the late Republican Temples of Hercules Victor in foro Boario (#43) and ad Portam Trigeminam (#44) imply that religious factors influenced their orientation.

95 Fest. p. 34 L. These purely augural *templum* may have been equivalent to *templum minora* (cf. Fest. p. 146 L; Serv. Aen. 4.200), while their temporary buildings may have been known as *tabernacula*. Frothingham 1914, 304; Linderski 1986, 2274-6; vs. Catalano (1978, 470), who incorrectly equates them with *loci designati in aëre*.

96 Varro ling. 7.8: *loca inaugurata “in quibus auspicato et publice res administrarentur et senatus habere posset.”* Both types could only lose their inaugurated status through the ceremony of *exauguratio*, cf. Ulp. dig. 1.8.9.2. Stambaugh 1978, 567-8; Linderski 1986, 2272-3.

97 Fest. p. 38 L. It seems likely that another *auguraculum* was located on the Alban hills. Grandazzi 1986, 134-6.

98 Plut. Rom. 2; cf. Coarelli 1981c, 177. The pomerium should not be confused with the limits of an earthly *templum*, since the whole of Rome was not inaugurated. Castagnoli 1984b, 13; cf. Godfrey and Hemsoll 1986, 200 and 207 n. 43, and below.

seventh century BC in origin, while the later *auguraculum* on the *Collis Latiliaris*, a section of the Quirinal, coincided with the Saepa.\(^{100}\)

In addition to their associated *auguracula*, the Comitium and the Saepa were earthly *templum*.\(^{101}\) Here meetings were held that governed the fate of Rome and required ready knowledge of the gods’ will. Similarly, most temple buildings, with the exception of the Temple of Vesta (#57), were established on inaugurated land in order to accommodate political and religious meetings.

Though temple buildings or *aedes* came to be known as *templum*, the terms were not equivalent in augural discipline.\(^{102}\) The earthly *templum*, known from ancient sources and archaeological remains, was a plot of land on which an altar and either temporary or permanent buildings could be constructed. While both *auguracula* preserve some traces of buildings, an augural *templum* at Bantia lacked buildings, but was bounded by stone markers that name the celestial and earthly points by which it was oriented.\(^{103}\)

Although the *templum* at Bantia is rectangular, as are examples at Cosa and possibly at Gubbio,\(^{104}\) neither the sources nor the archaeological record prove the exigency of this form. A. Frothingham has proposed that earthly *templum* could be circular.\(^{105}\) As confirmation, he points to Varro’s description of the *templum*, as well as to ancient survey drawings. These drawings, preserved in medieval manuscripts, show round plans for cities divided into quadrants by an intersecting Cardo and

\(^{100}\) *Arx*: Liv. 1.18.6; cf. Fest. p. 34 L; *Collis Latiaris*: Varro ling. 5.42. Coarelli 1981e, 180-8; cf. Linderski 1986, 2277.

\(^{101}\) Stambaugh 1978, 557; Castagnoli 1984b, 13. For the Comitium, see Coarelli 1993f, 309-14, and the Saepa, see Gatti 1999, 228-9.

\(^{102}\) Frothingham 1914, 307; Castagnoli 1984b, 3-4.

\(^{103}\) Linderski 1986, 2256-7 and 2284-6.


\(^{105}\) Frothingham 1914.
Decumanus.⁹⁶ Though with possible parallels in late Republican cippi,¹⁰⁷ as city plans, they cannot represent inaugurated templum areas. Even if they trace the pomerium, were an entire city inaugurated, it would not have not been necessary for augurs to demarcate sites for temples and meeting places.¹⁰⁸

More compelling are Frothingham’s arguments in favor of placing early round constructions in templum areas. Among these he names bidentalia, sites struck by lightening that were consequently inaugurated as templum.¹⁰⁹ Two are known from Rome, the Archaic puteal in the Comitium and the second century BC puteal Scibanianum in the Forum,¹¹⁰ which is represented on coins as a round altar set within a circular enclosure.¹¹¹ Another early round structure is the Shrine of Venus Cloacina.¹¹² Ascribed to the Sabine king Tatius, it marks the junction of two branches of the Cloaca Maxima, appropriate for its role in purification rituals.¹¹³

Like the enclosure of the puteal Scibanianum, the circular platform of the Shrine may signal the limits of its templum. However, evidence from other sites suggests that a strict correlation in size and shape between the templum and the structures it accommodated was not always required. This supposition is best proven by the frequency with which two temple buildings occupied a single templum site. In

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¹⁰⁶ For the diagrams of Frontinus, Dolabella, and Hyginus, see Frothingham 1914, 310-1 figs. 1-4. Limiting sites by means of the Cardo and Decumanus is not unique to templum, cf. vigna and cities (above). Linderski 1986, 2288.
¹⁰⁷ CIL I 552-6 and VI.4 30593; cf. Frothingham 1914, 312. There is no reason to believe, like Frothingham (1914, 312-3), that the Etruscan augur Olenus Calenus and subsequent Roman augurs traced the circular outlines of new templum on the ground. Linderski 1986, 2270-1 n. 487 and 2287 n. 561.
¹⁰⁸ Catalano 1978, 476.
¹¹⁰ For the puteal in the Comitium and its associated statua Atti Navii and ficus, see Coarelli 1999d, 170-1, and for the puteal Scibanianum, see Chioffi 1998, 171-3.
¹¹¹ RRC I 416 nos. 1a-c and 417 nos. 1a-b (62 BC); cf. BMCRep I nos. 3377-85 (71 BC).
¹¹² The present Shrine, which dates to the late Republican or early Imperial periods, consists of a marble socle once topped by a balustrade and two statues of Venus (see BMCRep I 573-4 n. 1, and 577-8 nos. 4242-54). Hülsen 1905, 63; Coarelli 1983b, 87-9, and 1993e, 290-1.
the Archaic and early Republican periods, the Temples of Fortuna and Mater Matuta
serve as a good example, since they share a precinct and even a podium.

By the late Republic, the Round Temple at Tibur (#64) was added to the
*templum* of the rectangular temple and the Temple of Fortuna Huiusce Diei (#38) was
probably constructed within the precinct\(^{114}\) of the Temple of Feronia.\(^{115}\) Just as the
shape this *templum* took did not matter in the late Republic, there is no evidence to
suggest that the late third century BC coincided with changes in augural policy so
significant as to effect basic conceptions of the *templum*. On the contrary, evidence
that supports a continuum of ideas from the Archaic period onwards can be found in
Varro’s subterranean *templa*.

**The subterranean *templum*:**

Like the celestial *templum*, which mirrored the sky, and possibly some earthly
*templa*, sites inaugurated below ground assumed a circular form. Due to their
location, these *templa* commemorated chthonic divinities instead of the celestial gods
honored on land.

At Rome, the Mundus (#49) in the Forum can be cited as an example of a
subterranean *templum*.\(^{116}\) The Mundus, which enjoys a continuous history from the
Archaic through the Imperial periods, is linked to legends of Rome’s foundation.\(^{117}\)
The sources define the Mundus as the center-point of Romulus’ pomerium, into which
Rome’s earliest citizens threw earth from their homelands and the first fruits of their

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\(^{114}\) Frothingham (1914, 308-9) also points to the *templum Divorum* in the Campus Martius, which
contained temples of Titus (*CIL* VI 10234) and Vespasian.

\(^{115}\) For the Temple of Feronia, see Coarelli 1981a, 24 and 40-2; vs. Ziolkowski (1986, 631-9, and 1992,
25-8), who identifies it as the Temple of Juturna.

\(^{116}\) Frothingham 1914, 314-7; Coarelli 1976-1977, 369-71, and 1999k, 288; Catalano 1978, 449; cf.
Smith 1950, 52-3.
crops.\textsuperscript{118} The Mundus consisted of two parts: the \textit{pars superior}, which stood above ground, and the \textit{pars inferior}. This lower part, consisting of a vaulted underground cavity or \textit{bothros},\textsuperscript{119} was consecrated to the chthonic gods Dis Pater and Proserpina.\textsuperscript{120}

Remains of the Mundus comprise a pit surmounted by a round monopteros of late second century BC and Severan date.\textsuperscript{121} While Praeneste (#30) and Pompeii (#28) provide parallels for its \textit{pars superior},\textsuperscript{122} the mid-Republican hypogea at Bolsena, Volsinii Novi, Caere, and Artena recall the Mundus’ \textit{pars inferior}.\textsuperscript{123} Accessed via vaulted chambers which mirror the sky, they provided sites where men could venerate the gods of the underworld.

\textbf{Conclusion:}

Drawing on knowledge of augury gained through contact with their neighbors, the early Romans defined procedures by which they were able to determine the gods’ will. Through interpreting signs visible in the sky, the Romans, like the Etruscans, Oscans and Umbrians, made informed decisions about actions they proposed to take. Among these actions was the founding of temples.

As inherent to temple foundation, the Romans developed the concept of the \textit{templum}. By evolving the Etruscan understanding of the sky and adapting Oscan and

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\textsuperscript{117} Archaeological evidence suggests that a Mundus accompanied the foundation of most if not all new cities, see inscriptions from Padula (\textit{CIL} IX 3173) and Corfinium cited by Coarelli 1999k, 288; cf. Catalano 1978, 464-6.

\textsuperscript{118} The Mundus should be identified with the foundation pit cited by Plutarch (\textit{Rom.} 11.2) and Ovid (\textit{fast.} 4.820-4). Coarelli 1999k, 288.

\textsuperscript{119} See #49. For the three days per year (24 August, 5 October, and 8 November) on which the subterraneous cavity was open, business transactions were forbidden in Rome. Frothingham 1914, 315; Torelli 2000, 161-2. For additional examples of \textit{bothroi}, the term used by Plutarch to describe this cavity, see Robert 1939, 185-8.

\textsuperscript{120} See #49. Coarelli 1999k, 289; cf. Torelli 2000, 162-3.

\textsuperscript{121} See Chaps. IV and VII #49. Also, Festus (p. 144 L, quoted in #49) describes the Mundus as round in reflection of the sky.

\textsuperscript{122} Architecturally similar, they may constitute the \textit{mundi} of their own cities, see Chap. IV #28 and 30. Another possible mundus is the 5\textsuperscript{th} c. BC circular cavity embedded in the acropolis at Norba. Catalano 1978, 463.
Umbrian ideas about consecrated land, Roman augurs created a system for locating temples whose complexity was without precedent. This system divided the *templum* into three ritually defined components, the celestial, the earthly and the subterraneous. The celestial *templum*, round in reflection of the sky, provided a backdrop against which augurs determined the movement and portent of signs. With favorable auspices, augurs used ritual means to define earthly and subterraneous *templa* in relation to the celestial *templum*.

With the exception of the Temple of Vesta (#57), all other round temples from the Archaic through the Imperial periods required a *templum*. The *templum*, equivalent to the cult’s sacred area, was of a shape and size sufficient to accommodate a temple and its altar. It seems unlikely that the *templum* mirrored the shape of the temple building more than was necessary or that the temple building’s shape was determined by that of the *templum*.

Evidence from the late Republic suggests that round temples could be constructed on earthly *templa* of rectilinear shape. Moreover, subterraneous *templa* like the Mundus (#49) were round. As the Mundus and comparable subterraneous *templa* maintain a constancy of shape, it seems likely that the relationship between earthly *templa* and their temples may not have changed too dramatically over the centuries. If rectangular *templa* could accommodate round temples in the second century BC, there seems no reason inherent in augural policy why round temples could not have been constructed on comparable *templa* prior to the late third century.

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124 Catalano 1978, 471.
CHAPTER IV: THE LATE REPUBLIC

I  INTRODUCTION

While evidence for Roman round temples in the Archaic and early to mid-Republican periods is limited and often inconclusive, in the late Republic, physical remains, ancient sources, and coin depictions confirm the foundation of round temples in Rome, Latium, and on the island of Delos. These temples correspond in date to Rome’s first direct contact with the Greek world. Through a series of military campaigns, beginning with Claudius Marcellus’ conquest of Syracuse in 211 BC, Rome was exposed to Greek artistic, literary and architectural achievements. Awakened to their potential, Rome began to absorb and adapt Greek products in ways that enhanced her own social, intellectual, and political life.

Among the most tangible products of Greek culture enjoyed in Rome were cult images, statues and paintings. Where this plunder was not used to decorate existing religious and public spaces, its sale funded the construction of temples intended to both glorify their founders and proclaim the power of Rome. Some early victory temples, which may have been designed by Greek architects and craftsmen,

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1 See Chap. III ‘Evidence for Roman round temples in the Archaic and early-mid Republican periods.’
2 Polyb. 9.10.1-13; Liv. 25.40.1-3; Plut. Marc. 21.1-5. For other early conquests, see Eumen. inst. schol. 7-8, CIL VI 1307 and #42 (M. Fulvius Nobilior’s sack of Ambracia in 187 BC), and #44 and Gruen 1992, 85 and 123-8 (L. Mummius’ conquest of Corinth in 146 BC).
3 Introduced into a conservative society, the first imports were treated with ambivalence, cf. Cic. Verr. 1.46, 4.1-8, and 5.185, Plin. nat. 34.48, and Gruen 1992, 95-6.
4 Gruen 1992, 86-9 and 92 (examples).
5 Cic. Verr. 2.4.120; Plut. Marc. 21.1; Livy 25.40.1; cf. Gruen 1992, 100-1.
6 Generals known to have brought back Greek artists include M. Fulvius Nobilior and L. Aemilius Paullus (Plin. nat. 35.135; Plut. Aem. Paul. 6.5; cf. Gruen 1992, 85 and 115), while Scopas Minor and Hermodorus of Salamis number among the artists and architects working in Rome.
were purely Greek in style.⁷ The majority however combined Greek design principles with Italic advances in materials and techniques.

Exemplifying both trends, Roman round temples demonstrate an understanding of Greek architectural models coupled with a readiness to experiment and manipulate their forms. Their clearest models were Greek tholoi. In an exhaustive study,⁸ F. Seiler divides the evolution of this building type into three phases: its creation in the Archaic period, its refinement through the introduction of the Doric peristasis in the Classical period, and its culmination in the Hellenistic period, marked by considerable variation in the type’s use and composition.

Like the earliest tholoi, including the Geometric building at Lathuresa and Archaic and Classical tholoi at Thebes and Eretria,⁹ the fifth century Skias in the Athenian Agora (#6), the best example of phase one, was a simple, non-peripteral drum. Consisting of a poros socle supporting mud brick walls and a tiled roof, the Skias contained two arcs of three columns and was accessed via two opposing doors. Ancient sources reveal its function as the meeting and dining place of the prytaneis or council presidents and a storehouse for weights and measures.¹⁰ Closely framed by public offices, the Skias’ round form may reflect a need for sizable floor space¹¹ and easy access despite limited angles of approach.¹²

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⁷ It is likely that the Pentelic marble Temples of Jupiter Stator, built by Q. Caecilius Metellus Macedonicus in 146 BC and designed by Hermodorus of Salamis (Vell. 1.11.5; Vitruvius 3.2.5), and of Mars in circo, founded by Brutus Callaicus in 132 BC (Nepos. Priscus 17), assumed a Greek form. Ziolkowski 1988, 327. It is also possible that the Temple of Ceres, Liber and Libera, which pre-dates the influx of Greek craftsmen, was designed by a Greek architect. Coarelli 1993d, 260-1.
⁸ Seiler 1986.
⁹ See Seiler 1986, 7-24 (Lathuresa), 25-8 (Sanctuary of the Kabires, Thebes), and 36-9 (Eretria). The earliest reference to a tholos appears in Homer’s Odyssey 22.442.466. Robert 1939, 138-52.
¹⁰ In the Imperial period, the Skias also functioned as a temple to the Phosphoroi, see #6.
¹¹ Roux 1988, 292.
¹² Thompson 1940, 44.
The late fifth and fourth century Tholos at Delphi (#12), located in the Sanctuary of Athena Pronaia, was a peripteral structure built with greater harmony and sophistication than the Skias at Athens; as such, it serves as a good example of Seiler’s second phase. From tufa foundations, the Tholos rose in Pentelic marble with a three-step krepis, twenty Doric columns, a frieze of forty metopes, and a marble-tiled roof. Inside the Tholos were ten Corinthian columns resting on a limestone socle, forty metopes, and nine statues. In addition to its costly materials and elaborate plan, it differed from its predecessors for the elongated, inclined columns that gave rhythm to its peristasis and the tiles, sima and acroterial sculpture that divided its roof into zones. Moreover, unlike the Skias, a modular system of proportions determined the relationship between its parts. This contributed to the overall unity of the Tholos, whose round form and significant sculptural program differentiated it, as the Athenian treasury, from other temples and treasuries on the sanctuary plain.

The contemporary Tholos at Epidaurus (#13) was sited at the heart of Asklepios’ sanctuary. While its foundations, used for sacrificial or oracular purposes, lack parallels among other tholoi, its Pentelic marble elevation is not unlike that of the Tholos at Delphi. One-third larger, the Tholos at Epidaurus was only slightly taller, with comparable Doric columns, intercolumnations and triglyphs. The metopes of its Doric frieze embossed with phiales are much simpler than those at

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13 This is the second of two tholoi at Delphi; the first (#11) sited in the Sanctuary of Apollo, ca. 560 BC, is significant both for its early stone peripteros and for its experimental use of the Doric order.


15 Roux 1952, 454 and 466-73.

16 This modular system, based on multiples of seven, recalls the numerical relationships praised by Greek philosophers. Bousquet 1980, xi; Laroche 1990, 52; cf. Chap. II ‘Vitruvius on round temple design.’

17 Roux (1988, 294, and 1992, 186-91) suggests that the metopes, if representations of the Persian wars and Greek civil struggles, may have been intended to underline Athens’ military supremacy.


19 Robert 1939, 296-358; Roux 1992, 205-10. See Seiler 1986, 86, for the comparable Manteion of Apollo at Klaros.
Delphi as are its simas and antefixes. In its interior, the Tholos included a socle and fourteen Corinthian columns, but introduced an Ionic architrave and frieze course as well as a series of wall paintings. As at Delphi, the Tholos’ round form helped to set it apart from rectilinear buildings in the sanctuary, and may have facilitated the cult rituals enacted in its foundations.

The Philippeion at Olympia (#22) was begun by Philip II following his success at Chaironea in 338 BC, and completed by his son, Alexander, to serve as both a victory monument and a statue gallery for the Macedonian royal family. While its round form provided an excellent means of displaying statuary, its location next to the Temple of Pelops, an ancestor of his patron Herakles, was determined by Philip’s social ambitions. Influenced by its predecessors, the Philippeion, with its varied architectural elaboration and external use of the Ionic order, effects a smooth transition to Seiler’s third phase.

Pertaining to this phase are a wide range of buildings from tholoi incorporated into courts, either rectilinear, like the Tholos at Kepos in Pontus Euxeinos, or round, like the three tholoi annexes of the court at Pella (#25), tholoi combined with rectilinear elements, like the Temple of Artemis at Stymphalos (#61), which unites a round naos with a rectangular pronaos, to diminutive tholoi which appear as votives.

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20 See #13.
21 The Tholos retained the eastern orientation of its neighbor, the Temple of Asklepios. Seiler 1986, 72-3 and 82-3.
22 Robert 1939, 296-358; Roux 1992, 205-10.
23 Seiler (1986, 100-3) sees the use of gold and ivory statues, previously confined to cult images, as a way to politically legitimize the dynasty created by Philip.
24 The Tholos contains a curved base, which enabled the statues to be viewed from all angles. Seiler 1986, 96-8.
25 Paus. 5.7.9 and 13.1-2; Arr. 3.3.2 and 6.3.2; Plut. Alex. 2.1. Miller 1973, 192.
26 While its materials recall the Tholos at Epidauros, the Philippeion’s roof and foundations are similar to the Tholos at Delphi’s. See #22, and Seiler 1986, 91 and 96.
27 In addition to Greek motifs, Miller (1973, 194-217) notes that the Philippeion incorporates Macedonian features to reflect Philip’s origins.
like the Monument of Lysicrates at Athens (#3), or as components of funerary architecture.28

The finest large-scale example is the Arsinoeion (#58), constructed by Arsinoe II, the wife of the Macedonian king Lysimachos, ca. 285 BC,29 in the Sanctuary of the Great Gods at Samothrace. Composed of a smooth drum, the building rises from a three-step krepis to culminate in a gallery of Doric and Corinthian pilasters, Doric and Ionic architraves, and a lantern roof.30 While its diameter is comparable to that of the Tholos at Epidauros and its floor space to the Skias at Athens, as the Arsinoeion lacks colonnades, its unsupported span is the largest in Greek architecture.31 Due to its size, scholars have proposed that it served as an assembly hall for public or religious functions, like the Skias at Athens, which it recalls in form and location.32

This summary of the development of Greek tholoi reveals how a basic form with several variables had been created by the Hellenistic period, which Roman architects could adopt and adapt for their own purposes. As the Greeks used round buildings to fulfill political and religious functions, so the Romans of the late Republic tied their new temple foundations to ideas current in their society.

II DISCUSSION

Archaic foundations rebuilt in the late Republic:

In addition to the Temple of Vesta (#57) and the Mundus (#49), the Monopteros at Pompeii (#28), whose foundation may date to the Archaic period, was rebuilt in the late Republic.

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28 Seiler 1986, 115-19 (Pontus Euxeinos).
29 For an alternative Arsinoe, see #58.
30 The Arsinoeion’s back-to-back pilasters almost function as a peristasis.
31 Roux 1992, 92.
32 Accessed via a processional road, the Arsinoeion could be viewed from the south, west and north. Roux 1992, 29 and 216-21.
The Temple of Vesta, Forum, Rome (#57)

The Temple of Vesta (#57) experienced two distinct phases of development in the late Republic: the first, of early second century date, corresponded to an extension of the Temple’s precinct as far as the Atrium Vestae and the Regia, while the second, dating to the mid-first century, saw the walls of the precinct repaired and its paving replaced.33 Also in the second phase, an arch was added to buttress the Temple’s foundations, whose favissa was refaced with roof tiles.34 Third century fire damage35 may have necessitated improvements to the Temple’s precinct, while the arch and work on the favissa may point to a rebuilding of the Temple in the first century BC, attributed by R. Scott to Julius Caesar, pontifex maximus from 63.36

The late Republican Temple may be illustrated on a denarius of Q. Cassius, struck ca. 57 BC,37 and on cistophoric tetradrachms minted by C. Fannius in 49-48.38 Both depict the Temple as a round monopteros rising from a low podium with Ionic columns, grillwork,39 and a rounded roof. A statue of the goddess appears on its roof40 and, on Cassius’ coin, a sella curulis or judge’s seat is depicted in its interior. While the statue, like the legend, identifies the building as the Temple of Vesta,41 the seat may allude to a trial involving Vestals that took place under Cassius’ ancestor, L. Cassius Longinus Ravilla in 113.42 However, even if Cassius’ coins refer to this

33 Scott 1999b, 126. The Archaic lucus Vestae located near or possibly within the precinct of the Temple may have survived through the late Republic. Cic. div. 1.45.101; Scott 1999c, 129-30.
34 Scott 1993a, 11-3, and 1999b, 126.
35 See Chap. III #57.
36 Scott 1993a, 17. Van Deman (1912, 393) links this rebuilding to Augustus.
37 See Cat. #57 and Cody 1973, 43-4.
38 See Cat. #57 and Cody 1973, 44-7 and 49.
39 The grillwork only appears on Fannius’ coins.
40 The palladium she may carry (see Cat. #57) underlines Vesta’s links to Aeneas and consequently, to legends of Rome’s foundation.
41 Fuchs 1969, 51-7; Hill 1989, 24. Due to the presence of a continuous fire (Varro ling. 6.32; Ov. fast. 6.297-8 and 713), it is highly unlikely that the Temple ever contained a cult statue.
event, they probably reflect the first century Temple, which may have carried the bronze roof mentioned by Pliny.\textsuperscript{43}

Though possibly funded by Greek conquests, the late Republican Temple of Vesta has little in common with contemporary victory temples. Rather, as the city’s hearth, the Temple was reconstructed in deference to Rome’s cultural heritage.\textsuperscript{44}

**The Mundus, Rome (#49)**

The Mundus (#49), a round pit in the Archaic period, was covered with a permanent structure in the late second century BC. Attested by its foundations and fragments of its Ionic entablature, this monopteros\textsuperscript{45} was sited within a contemporary or first century precinct.\textsuperscript{46} F. Coarelli has suggested that, by capping its pit or *penus inferior*, the Mundus’ rebuilding marked a change in the way its function was conceived and understood.\textsuperscript{47} No longer emphasized for its role in Rome’s colonization, he suggests that it was celebrated for its location at the center of the city, much like a Greek *omphalos*. Coarelli’s comparison of the Mundus to a Greek ‘navel’ or geographic center is supported by its Imperial appellation of *Umbilicus Urbis*,\textsuperscript{48} as well as by likely parallels for its form and function in Greece and Greek-influenced Etruria.\textsuperscript{49}

\textsuperscript{43} Plin. *nat.* 34.14. Alternatively, this roof may pertain to the Temple’s rebuilding just before Pliny’s death, see Chap. V #57.

\textsuperscript{44} Although her cult is related to the Greek goddess Hestia’s, Vesta’s Temple does not find a parallel in Greece, where Hestia was worshipped at open-air altars. Robert 1939, 12 and 365-8; Hautecoeur 1954, 6.


\textsuperscript{46} See #49.

\textsuperscript{47} Coarelli 1996k, 289, and 1999i, 95.


The Monopteros, Pompeii (#28)

Built in the style of its sixth century BC neighbor,\textsuperscript{50} Numerius Trebius’ Doric Monopteros (#28) may have replaced an earlier structure that stood above a pit in the Foro Triangolare, one of Pompeii’s most ideologically important areas. As its plan and location support comparison with the Mundus at Rome (#49), it is possible that the Monopteros also recalled it in function.\textsuperscript{51} It seems reasonable that a political leader like Trebius might build or rebuild a shelter for the Mundus of his city, especially as his family’s trading activities throughout the Mediterranean\textsuperscript{52} could have exposed him to Greek omphaloi.\textsuperscript{53}

Round temples founded in the second century BC:

Like the Mundus (#49) and the Monopteros at Pompeii (#28), round temples built in the late Republic demonstrate an awareness of the power and extent of Greek influence on Roman social, political and intellectual life. Although some prefer Roman traditions to Greek ideals, like the Temple of Vesta (#57), most round temples effect a balance between Greek and Roman elements in their design and construction.

The Temple of Hercules and the Muses and the Shrine of the Camenae, Rome (#42 and 33)

The Temple of Hercules and the Muses (#42), founded by M. Fulvius Nobilior,\textsuperscript{54} active in Aetolia, and rebuilt by the consul L. Marcius Philippus,\textsuperscript{55} was

\textsuperscript{50} See #28.
\textsuperscript{52} La Rocca, de Vos, and de Vos 1994, 151.
\textsuperscript{53} Coarelli (1983b, 219; cf. Catalano 1978, 463) cites the omphalos at Norba as comparable in both form and location. Omphaloi have also been identified at Greek Delphi, Eleusis, Bolsena (Coarelli 1983b, 215 and 219-20; cf. Hautecoeur 1954, 8), and Artena (Morel 1999, 483-4).
\textsuperscript{54} RE VII Fulvius 91.
both a victory monument and a testament to M. Fulvius’ commitment to culture and the arts. The Temple, whose dedication may have coincided with Fulvius’ triumph in 187, was enclosed within the Porticus Philippi in 33 BC. Both the Temple and the Porticus, which aligned the Temple precinct with the Circus Flaminius and the Porticus Octaviae, can be reconstructed on the basis of the Severan Marble Plan and of literary and iconographic sources that relate details of their decoration.

On the Plan, the Temple is shown as a drum with a rectangular pronaos and a flight of four steps. Resting on a platform, it is preceded by the Shrine of the Camenae (#33), which appears on a lower level and is backed by a semicircular exedra. The Porticus bounds the Temple platform with a double colonnade and a wall on four sides. While its entrance façade is obscured by breaks in the Marble Plan, the Porticus’ back wall is punctuated by an opening leading to a flight of steps, a square court, and a triangular enclosure.

55 Most scholars would agree that L. Marcius Philippus, Augustus’ stepbrother and consul in 38 BC (RE XIV Marcius 77), built the Porticus Philippi (see Martina 1981, 54, and Viscogliosi 1996c, 17), though Richardson, jr. (1977, 359, and 1992, 187) believes Philippus, Augustus’ stepfather and consul in 56 BC (RE XIV Marcius 76), responsible for the Porticus and the reconstruction of the Temple.

56 This is one of several victory temples dedicated to Hercules in the Campus Martius, possibly as payment of the decuma Herculis. Others include the Temple of Hercules Magnus Custos near the Circus Flaminius, built prior to 218 BC (see Viscogliosi 1996b, 13-4), and Sulla’s shrine to Hercules Sullanus (see Palombi 1996a, 21-2).


58 Eumen. Paneg. 9.7.3 (quoted in #42); Viscogliosi 1996c, 17. Eumenius is incorrect in suggesting that its construction was paid ex pecunia censoria.

59 Roman calendars record two dies natalis for this Temple; the first, 13 June (CIL I 344-5), has been associated with Fulvius’ construction, while the second, 30 June (Ov. fast. 6.797; cf. Mart. 4.49.13), may refer to Philippus’ restoration. Viscogliosi 1996c, 17.

60 Its location fits with Vitruvius’ suggestion (1.7.1) that temples of Hercules should be sited near circuses; cf. Plin. nat. 34.33 and Frazer 1964, 55-7 (statue of Hercules Triumphator beside the starting gates of the Circus Maximus).

61 Gros 1976a, 82-3.

62 This depiction is supported by some building remains, see #42.

63 See Chap. III #33.

64 Viscogliosi (1996c, 18; cf. Castagnoli 1983a, 96) proposes that this area was landscaped or functioned as a podium or platform.

65 Though it seems more likely that Philippus was responsible for the entire Portico, Marabini Moevs (1981, 46) views the first row of columns as the porticus ad fanum Herculis erected by M. Fulvius Nobilior (Liv. 40.51.6) and the second as that built by Philippus.

66 Richardson, jr. (1977, 361) identifies the enclosure as the wig market mentioned by Ovid (am. 3.167-8) and Martial (5.49.12-3).
According to ancient authors, the Temple’s decorative scheme included nine statues of the Greek Muses taken as booty from Ambracia,\textsuperscript{67} a statue of Hercules Musagetes,\textsuperscript{68} and the Shrine of the Camenae.\textsuperscript{69} In addition, an annotated copy of the *Fasti*,\textsuperscript{70} paintings by Zeuxis and Theorus, and three statues by Antiphilus can be linked with the Temple complex.\textsuperscript{71} Of these features, the *Fasti* may have been incorporated into the Temple platform,\textsuperscript{72} and the paintings would have been sheltered by the Portico.\textsuperscript{73} 

A Campana plaque, which may illustrate part of the complex, places a statue of Heracles Musagetes directly beneath the marine frieze of the Temple’s pronaos\textsuperscript{74} and athletic statues in the intercolumnations of the Portico.\textsuperscript{75} Depicting the rear third of the Temple complex, the plaque implies that the cult image of Hercules stood in the Temple’s cella, while the statues, possibly by Antiphilus, decorated the rear wall of the Porticus.

Absent from the plaque, the Ambracian Muses may appear together with Hercules on denarii minted by Q. Pomponius Musa in 64 BC.\textsuperscript{76} These show the nine Muses with accompanying attributes and Hercules, identified as *Hercules Musarum*, with a club and a lyre. While it is generally assumed that the prototypes for these images were Fulvius’ statues, M. T. Marabini Moevs rejects this comparison on the

\textsuperscript{67} See #42. However, ancient authors (M. Porcius Cato Censorius in Prisc. gramm. 2.367.14 K; Cic. *Tusc*. 1.3, and *Arch*. 27; Liv. 39.4.3-7) disputed his right to appropriate the Muses following Ambracia’s surrender. Martina 1981, 58 fol.; Viscogliosi 1996c, 17.
\textsuperscript{68} See #42. No ancient author writes of a statue of Hercules brought from Ambracia. Marabini Moevs 1981, 5.
\textsuperscript{69} Serv. *Aen*. 1.8.
\textsuperscript{70} See #42. This may be the first of its kind. Viscogliosi 1996c, 17.
\textsuperscript{71} See #42.
\textsuperscript{72} Lundström (1929, 106 fol.) prefers to site the Fasti along the base of the exedra.
\textsuperscript{73} If correctly located, the paintings and statues by Antiphilus (see below) may have been introduced to the complex by Philippus.
\textsuperscript{74} The relief does not support Viscogliosi’s (1996c, 18) tetrastyle pronaos.
\textsuperscript{75} Marabini Moevs 1981, 5 and 47. Olinder (1974, 64) dates the marine frieze to Philip’s restoration.
\textsuperscript{76} *RE* XXI Pomponius 23. Richardson, jr. (1977, 358-9) suggested that Musa revived the cult of Hercules and the Muses to explain his unusual cognomen.
basis of stylistic anomalies. Instead, she prefers to see images of the Muses on a late Republican crater from Cerdo and of Hercules on first century BC Arretine ware as imitations of Fulvius’ hoard.

The sources relate that Fulvius introduced the combined cult of Hercules and the Muses to Rome after he and the poet Ennius, who joined and recorded his campaigns, discovered a cult of Herakles Musagetes in Greece. This cult, if imbued with current philosophical ideas, would have honored Hercules for his wisdom and insight and the Muses for their poetic inspiration. In a Roman context, a temple dedicated to these deities may have served as a place where poets could meet, compose and recite their poetry. If a Collegium Poetarum, Fulvius’ Temple would have recalled the Mouseion at Alexandria and possibly, the Temple of the Muses at Thespiae.

In light of the Greek roots, function, and content of the Temple of Hercules and the Muses, it is appropriate that its form and decoration had clear Greek precedents. Herakles was honored with tholoi at Aigai, Thasos, and Pella. He may also have been venerated together with the Dioskouroi in a tholos at

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77 Marabini Moevs (1981, 10-48) considers the images’ baroque style incompatible with Classical Greek works.
78 Marabini Moevs (1981, 10-48) also discredits Eumenius’ testimony of nine Muses, proposing five for which she finds clearly defined types on the Cerdo and related vessels.
79 A number of Arretine pots show a Hercules figure wearing a chiton and chlamys and carrying a cithara. Marabini Moevs 1981, 21-2.
80 Cic. Arch. 27 and Martina 1981, 57 fol.
81 Cic. de iur. ill. 52.2.
83 Boyancé 1955, 182-3; Martina 1981, 64. See Pietilä-Castrén 1987, 102, for possible links between Pythagoras, Numa, and the annotated Fasti.
84 Silher (1905) and Crowther (1973, 576-9) trace the history of the Collegium Poetarum at Rome and suggest other locations for it, including the Temple of Minerva on the Aventine.
86 Aigai: Price 1973, 70, and Seiler 1986, 160 nos. 1-2; Thasos: Seiler 1986, 162. The complex at Pella, which consisted of three tholoi flanking a round court, may have commemorated Herakles Phylakos, a guardian god and protector of the Macedonian state. Price (1973, 68 and n. 19) suggests that the Classical tholos at Delphi also served as a heroon of Phylakos.
While Fulvius may have chosen to emulate the round form of these temples, it is also possible that the Shrine of the Camenae, to which he gave a prominent position on the platform, served as a model for his Temple. Fulvius also combined Roman and Greek elements in the layout and content of his decorative program. Balanced against Numa’s Shrine and the Fasti were Greek statues and paintings, some of which, like the Muses if placed on top of the semicircular exedra, would have recalled the statue displays of Classical and Hellenistic Greece.

**The Temples of Hercules Victor in the Forum Boarium area (#43 and 44)**

Ancient authors record the existence of two round Temples dedicated to Hercules Victor in Rome: *una ad portam Trigeminam, alia in foro Boario.* Modern scholars have identified these with the round Temples built in and beside the Forum Boarium. The forum served as both the cattle market and the primary cult center of Hercules in Rome. Its association with the Hercules cult dates back to the prehistoric period, when the hero received an altar in the forum to commemorate his victory over the local tyrant Cacus. The Ara Maxima Herculis may represent a replacement of this altar in the Republican period, while statue dedications,

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88 However, Marabini Moevs (1981, 46) would like to set the Ambracian Muses in the Portico’s NE intercolumnations.
89 For the Hellenistic period, the hemicycle of the poets and philosophers in the Serapeion at Saqqarah, constructed by Ptolemy I Soter, and the *schola* at Phyrus’ court in Alexandria provide good comparative examples. Marabini Moevs 1981, 43 and 46.
91 It seems likely that Greek merchants introduced Herakles to the Etruscans in the Archaic period. Sichtermann 1960b, 388; vs. Van Berchem 1959-1960, 61-8, who derives Hercules from the Phonecian god Melkart. The first epigraphic evidence to link him to the forum dates to 399 BC. Liv. 5.13.5-6, 7.2.2 and 27.1, and 8.25.1; Dion. Hal. 12.9 fol.; Aug. *civ.* 3.17; cf. Bayet 1926a, 260.
92 For the myth, see Coarelli 1992a, 130-9.
94 Its 2nd c. BC remains, consisting of an Anian tufa podium found beneath and behind S. Maria in Cosmedin, can be attributed to Scipio Aemilianus. He may have restored the Altar as a means of paying the *decumna Herculis*. Bayet 1926b, 127, 141, 239-42 and 248-56; Jaczynowska 1981, 633-4;
inscriptions and votive offerings found nearby, like the round Temples, attest to a continued interest in his cult at the forum Boarium through the Imperial period.\textsuperscript{95}

The first of these Temples (#44) has been associated with the surviving round Temple by the Tiber based on the location of the Servian walls and the Porta Trigemina,\textsuperscript{96} the \textit{dies natalis} of the Temple,\textsuperscript{97} and the Portunus relief, which may illustrate its urban context.\textsuperscript{98} The second Temple (#43) may be identified with the round Temple destroyed by Sixtus IV. Modern scholars, aided by Livy and Festus, have placed this Temple to the north of S. Maria in Cosmedin on a site now occupied by the ex-Palazzo dei Musei di Roma.\textsuperscript{99}

Many of the same passages in which ancient authors provide evidence for the existence and the location of round Temples to Hercules Victor give insight into the founders of these Temples and the motivations behind their founding.

\textbf{The Temple of Hercules Victor in foro Boario, Rome (#43)}

The Temple of Hercules Victor in foro Boario (#43) has been identified with the Temple destroyed in the fifteenth century through references in the ancient sources. In addition to locating the Temple, a passage of Festus may reveal its

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\textsuperscript{95} For praetorian inscriptions and inscribed votives from the Imperial period, see Bayet 1926, 241, and Cressedi 1984, 264. The last recorded mention of the altar dates to 321 AD. Cressedi 1984, 285.

\textsuperscript{96} For the debate surrounding the location of the Servian walls and the Porta Trigemina, see Säflund 1998, Andreussi 1996b, 319-24, Coarelli 1992a, passim and 1996l, 332-3.

\textsuperscript{97} See #44 and below. For the differences in epithet, see Ziolkowski 1988, 311 n. 6, and Coarelli 1992a, 180-1 and 188-92.

\textsuperscript{98} According to Coarelli (1992a, 95-6, and 1996c, 15), this relief, which appears on the Arch of Trajan at Benevento, depicts a procession of gods as topographical indicators in the forum Boarium. He sees Portunus as a personification of the Temple of Portunus, Hercules as the round Temple of Hercules Victor, and Apollo as the statue of Apollo Caelisplex.

\textsuperscript{99} Livy (10.23.3) and Festus (p. 282 L) locate a round temple of Hercules near a \textit{signum} or \textit{sacellum} of Pudicitia.
founder. Based on his text, Scaliger has proposed L. Aemilius Paulus, who is known to have pledged a hecatomb and games to Hercules before the Battle of Pydna. Better however is Coarelli’s suggestion of his son, P. Cornelius Scipio Aemilianus, consul in 146 and 134 BC. Scipio Aemilianus, who oversaw work on the nearby Pons Aemilius, and knew Pacuvius, credited with decorating a temple of Hercules, may have founded it during his censorship in 142. Alternatively, though less likely, the Temple may have been vowed by the familia or servile clergy of Hercules at the Ara Maxima or by the military victor, T. Quinctius Flamininus.

Numerous Renaissance authors attest to the excavation, restoration and destruction work carried out by Sixtus IV (1471-1484) in the forum Boarium. During this work, a seated bronze Hercules, shown holding the apples of the Hesperides, was discovered near S. Maria in Cosmedin and the Temple was razed to the ground. However, a drawing by B. Peruzzi preserves something of its appearance. From this drawing, G. B. Giovenale has reconstructed the Temple as a pycnostyle peripteros with eighteen Tuscan columns rising from a stepped krepis. Its cella is punctuated by a tall door and a small window, while a low stepped dome serves as its

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100 Festus p. 282 L quoted in #43. Scaliger’s emendation (see #43) implies that a member of the gens Aemilia was responsible for the Temple’s construction.
102 Liv. 40.51.4; Plut. praec. ger. 20.4.
103 Its construction coincided with his censorship. Coarelli 1995k, 351.
105 Pais (1920, 520; cf. Ziolkowski 1992, 46, vs. Palmer 1990, 236-40) suggested Scipio Aemilianus based on a passage of Plutarch (praec. ger. 20.4), which reveals that he dedicated a temple to Hercules during his censorship, probably following his conquest of Carthage.
106 For Mommsen’s alternative reading of Festus, see #43.
107 Based on a third reading of Festus (see #43), Palmer (1990, 237-8) dates the Temple to the 190s-180s BC with a dies natalis of 29 June or 21 December. Like Scipio Aemilianus, Quinctius Flamininus was a known philhellene. Gruen 1992, 101.
108 This statue may represent a Hercules Triumphalis, see Plin. nat. 34.33 (Evander’s Hercules), above and Cressedi 1984, 268.
109 The site as identified by Renaissance topographers corresponds to the zone of the ex-Pastificio Pantanella, occupied in the eighteenth century by the warehouses and granaries of Ottavio Gracchi.
110 See Chap. II ‘Vitruvius on round temple design’ and Gros 1976a, 214.
His reconstruction, especially the cupola, is hypothetical and may reflect renovations of the Imperial period.\textsuperscript{112}

In addition to the bronze Hercules,\textsuperscript{113} Servius and Macrobius attest to a second statue connected with the Temple.\textsuperscript{114} Depicted wearing the Nemean lion skin,\textsuperscript{115} this Hercules, like the bronze statue, recalls one of the hero’s labors. Hercules, whose success depended on his resourcefulness and might,\textsuperscript{116} was an ideal role model for late Republican generals and political leaders and by extension, the preferred god for victory dedications.

**The Temple of Hercules Victor ad portam Trigeminam, Rome (#44)**

The second round Temple of Hercules Victor (#44) stands together with a rectangular temple on a fill layer between the forum Boarium and the banks of the Tiber. This layer, which may be limited by the Servian walls, contains ceramic remains from the early second century BC.\textsuperscript{117} The contents of the layer constitute a terminus post quem for both Temples, while its date and location suggest a link with M. Fulvius Nobilior’s expansion of the port in 179 BC.\textsuperscript{118} Despite their physical proximity and late Republican date,\textsuperscript{119} the two Temples are radically different in form and decoration. While the rectangular temple shows strong Italic influences in its

\begin{footnotesize}
\footnotetext{111} Giovenale 1927, 378-9. As it is difficult to conceive that the weight of a dome could be supported by columns, it seems more reasonable to reconstruct a wooden truss roof.
\footnotetext{112} Coarelli 1992a, 91-2. Much of the Temple’s elevation may have been invented by Peruzzi.
\footnotetext{113} Giovenale (1927, 380) places this statue in an interior niche.
\footnotetext{116} Sichtermann 1960a, 378-87 (in Cynic and Stoic philosophy).
\footnotetext{117} Coarelli 1995k, 360. For the course of the Servian walls, see above.
\footnotetext{118} Palmer 1976-1977, 141. By extension, the Temple’s placement may imply some involvement in the life and trading activity of Fulvius’ port. See below for its potential commercial links, while the rectangular temple is generally attributed to the god Portunus, the patron god of harbors and ports. Adam 1994b, 5-30, 56-78 and 101.
\footnotetext{119} For the Temple’s date, see below. The late 2\(^{nd}\) c. BC date of the Temple of Portunus is secured by the fill layer and by the materials and techniques employed in its construction. Adam 1994b, 46-9.
\end{footnotesize}
style and stucco-covered decoration, the Temple of Hercules Victor resembles temples of the Greek East in its materials and design.

The Temple rises from tufa foundations with a cella of marble-revetted travertine and a marble peristasis. Its twenty columns, resting on a marble-covered krepis and travertine euthynteria, comprise Ionic bases, fluted shafts and Corinthian capitals. Unusually slim and densely packed, its columns differ among themselves in height, material and number of drums.

The Pentelic columns known as Group A pertain to the original Temple. In view of their closest comparanda, the late Hellenistic capitals of the Hekateion at Laguna in Caria, ca. 128-81 BC, W.-D. Heilmeyer has proposed that the Group A capitals were transported partially carved from Greece and put in place by local workmen. The Luna marble columns of Group B and Luna capitals of Group C, supported on original shafts, by contrast, are of Italian manufacture. Precise copies of the Group A capitals, the Groups B and C capitals were produced in Rome, probably following the Tiber flood of 15 AD, which may have destroyed parts of the Temple’s sub- and superstructure.

The Temple’s peristasis supported a Corinthian-Ionic entablature, while ceiling coffers, decorated with acanthus plants and flowers, spanned its ambulatory. Its cella wall, heavily repaired in the Imperial period, consists of a tall socle of finely dressed header and stretcher courses and, above its cornice, marble blocks clamped to

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120 While the frontal, symmetrical plan and materials used in the Temple of Portunus are purely Italic, its peripteros of pilasters betrays some Greek influence.
121 The presence of a bothros or pit in the Temple’s foundations, like at the Tholos at Eppidauros (#13), may strengthen the Temple’s links with Hercules’ early chthonic ideology. Robert 1939, 372-3.
122 Finds from the Mahdia shipwreck attest to the shipping of architectural elements from the Greek world to Rome.
123 As the acanthus leaves of the Temple’s coffering are similar in style to the capitals of Group A, Rakob and Heilmeyer (1973, 19, 23, and 30) suggest that they are products of a Greek workshop.
124 Rakob and Heilmeyer 1973, 22.
125 Rakob and Heilmeyer 1973, 6-8, 19 and 21-3.
126 This reconstruction is supported by the Ionic slope of the cornice fragments, suggesting the use of modillons and a continuous frieze course. von Hesberg 1980, 119 and 169.
a travertine backing. Though characteristic of late Classical and Hellenistic building practices, the drafting and masonry techniques used in its construction appear rarely in Roman architecture prior to the late Republican or Augustan periods. As a result, they, like the fill layer, help to narrow the Temple’s date to the second or first centuries BC. Moreover, like the Temple’s marble-tiled, wooden truss roof, they underline the strength and breadth of Greek influence on its form, materials and design.

Based on dating limitations and evidence provided by the ancient sources, modern scholars have sought to assign a founder to the Temple. Servius and Macrobius credit M. Octavius Hersennus with the introduction of the cult and the construction of a temple to Hercules Victor in Rome. Based on Hersennus’ connections to the olive trade, F. Coarelli identifies the Temple by the Tiber as this foundation. The Temple, sited in a marketplace and port, may represent a tribute to Hercules Victor Olivarius, the patron god of olive merchants. Supported by an

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127 Strong and Ward-Perkins 1960, 9; Rakob and Heilmeyer 1973, 10 and 12.
128 Strong and Ward-Perkins 1960, 11-8 and 31-2. Comparable examples of drafting include the Hieron at Samothrace (late 4th c. BC), the Mausoleum of Caecilia Metella (60 BC) and the Temple of Mars Ultor in the Forum of Augustus (dedicated in 2 BC). According to Ward-Perkins, the pattern of tall-and-short courses used above the socle, though commonplace in the late Hellenistic architecture of Asia Minor, is without parallel in Rome.
129 Strong and Ward-Perkins (1960, 18-20) argue for a late Republican date as comparable Augustan examples employed a much thinner marble veneer and as few if any Roman buildings were constructed of imported marbles after the opening of the Luna marble quarries.
130 Rakob and Heilmeyer 1973, 32-3.
131 In addition to the fill layer and the Temple’s Greek style and construction, its dating is restricted by the limits of Grotta Oscura tufa use, ca. 396-early 1st c. BC, chronological listings in the Fasti, 173-67 BC (see Coarelli 1992a, 101-2), and the date of the first marble temple in Rome (for the Temple of Jupiter Stator, ca. 146 BC, see ‘Introduction’ above).
132 Serv. Aen. 8.363; Macr. Sat. 3.6.10. For difficulties regarding the sources from which these authors drew and hence the reliability of their material, see Ziolkowski 1988, 318-24.
133 M. Octavius is alternately known as Hersennus and Herennus.
134 Coarelli (1992a, 193-6 and 199; vs. Ziolkowski 1988, 320-1) also identifies Hersennus as an author with Tiburtine connections suitable for the transfer of a Tibur-based cult (Macr. Sat. 3.12.7), and a tribunus plebis who may have abolished the lex Frumentaria of C. Gracchus.
135 Inscriptions from Delos suggest that Hercules was the patron of Italian olearii. Ziolkowski 1988, 317; Coarelli 1992a, 203-4.
inscribed statue base, Coarelli’s attribution of Hercules Victor Olivarius is additionally significant as his cult statue was crafted by the Greek artist, Scopas Minor. Linked with such a famous name, it is not impossible that the renowned Greek architect, Hermodorus of Salamis, was responsible for the Temple’s design. It is also possible however that Hermodorus designed a temple for L. Mummius Achaicus, the prominent military figure whom A. Ziolkowski proposes as founder. Mummius is cited on an inscription as constructing an *aedem et signu(m)* to Hercules Victor. As a general, consul and censor together with Scipio Aemilianus, who may have built the nearby Temple of Hercules Victor *in foro Boario*, it seems likely that Mummius founded a temple worthy of his status. Like Metellus Macedonicus and Brutus Callaicus, who constructed temples in Pentelic marble, Mummius may have dedicated the Greek-inspired, marble-revetted round temple to the god who ensured his victory.

**The Temple of Fortuna Huiusce Diei, Rome (#38)**

Architectural and decorative remains of Temple B found in the gardens of S. Nicola ai Cesarini as well as the Severan Marble Plan illustrating it, its northern

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138 Ziolkowski (1988, 317-27) doubts whether Hersennus had the funds or the political clout necessary to build this Temple. Moreover, he considers it likely that the *lex Papiria* would have limited Hersennus’ ability, as a private individual, to found a temple on public land.

139 It should be noted that the inscription (*CIL I²* 626 = *CIL VI* 331 = *ILLRP* 122), discovered on the Caelian, was cut into a low quality, travertine slab. Hardly a dedicatory plaque, Coarelli (1992a, 186) would link it to a shrine built near its find spot.

140 For L. Mummius’ career, see Ziolkowski 1988, 328-9, and for a modern review of his aesthetic sentiment, see Gruen 1992, 123-7.

141 See ‘Introduction’ above. Like them, Mummius adopted a surname reflective of his conquest.

142 As Mummius was the only general to be labeled *victor* by Vergil (*Aen.* 6.836-7), it seems appropriate that Hercules’ cult should bear his epithet. Ziolkowski 1988, 330; cf. Wilson Jones 2000, 138 (re. the appropriateness of the Corinthian order for a victory monument).
neighbor Temple A, and a portion of Temple C, have aided archaeologists in identifying the location of Temple B at a site known as the Area Sacra di Largo Argentina. The Temples of the Area Sacra, A, B, C, and D at its southern limits, are bounded by a rectangular portico that backs onto the porticus Pompei with its theater to the west and fronts onto the porticus of the Via delle Botteghe Oscure, which F. Coarelli considers the Imperial porticus Minucia Frumentaria.\textsuperscript{143} Coarelli identifies the enclosure of the Area Sacra as the porticus Minucia Vetus, constructed by M. Minucius Rufus, consul in 110 BC, following his victory over the Scordisci in 107.\textsuperscript{144}

Of the Temples located within the Area Sacra, Temple B is the most recent. It follows the first period of building work in the Area, from the late fourth to the mid-third century BC, which saw the construction of Temples A, C and D. In the second period, from the mid-second to the mid-first century BC,\textsuperscript{145} the ground level of the Area Sacra was raised with a tufa paving, the porticus Minucia Vetus was erected, and Temple B experienced the first and second phases of its development in unison with the second phase of Temples C and D and the second and third phases of Temple A.

The construction of Temple B is contemporaneous with a general unification of the Area Sacra. The addition of tufa paving brought the four Temples, conceived and built separately, together on a common ground level, while the erection of Minucius’ Portico gave shape to the Area and defined its outer limits. In its first phase, ca. late second century BC,\textsuperscript{146} Temple B rose from two stone and concrete foundation rings\textsuperscript{147} with a cella wall and peripteros of tufa and travertine. A base, embedded in its inner ring, supported a colossal cult image, of which fragments have

\textsuperscript{146} For this date, see #38 and below.
\textsuperscript{147} Coarelli et al. 1981, 19. A sewer was discovered underneath the Temple’s foundations. Marchetti-Longhi 1956-1958, 45-8.
been found beside the Temple. On stylistic grounds, Coarelli has attributed this statue to Scopas Minor.149

The Temple’s podium was preceded by a set of travertine-revetted steps and supported eighteen Corinthian columns.150 The columns, resting on Attic-Asiatic bases, carried a richly detailed, Pentelic marble entablature and a marble-plated, wooden truss roof.152 The original cella wall, destroyed in the mid-first century BC,153 was replaced by a new wall rising from the outer foundation ring. This new wall, formed by interposing tufa blocks between the columns, greatly increased the dimensions of the cella154 and occasioned the restructuring of its podium. Now faced with peperino, the podium was enlarged and received new base and cornice moldings. Simultaneous with this reconstruction was the introduction of two oblong bases placed on either side of the Temple’s stairs.155 These were presumably intended for the sculptural groups mentioned by Cicero and Pliny.156

Though common decorative elements and the introduction of tufa paving and Minucius’ portico went far to unify the Temples of the Area Sacra, raised platforms with altars built in front of Temples A, C and D in the first period and B in the second157 resulted in much of their independent flavor being retained until the massive renovations of Domitian’s era.158

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149 Gros 1996, 269-70.
151 Coarelli et al. 1981, 20 pl. 5.2; vs. Schorner 1995, 9. If correctly identified, this plaque would be the earliest example of an ornamental stone frieze found in Rome.
152 Marchetti-Longhi 1956-1958, 63-5.
153 See #38 and Gros 1996a, 270.
154 See Chart #38.1.
156 Cic. Verr. 2.4.4.126, Plin. nat. 34.54 and 60, and see #38.
Set apart from its neighbors, Temple B has been identified based on Varro’s description of his aviary at Cassinum.\textsuperscript{159} Likening it to a \textit{tabula literaria \ldots cum capitulo}, Varro notes that his birdhouse \ldots \textit{est ultra rutundus columnatus, ut est in aede Catuli, si pro parietibus feceris columnas}.\textsuperscript{160} Prior to incorporating its peripteros within a new cella wall, Temple B, referred to as the \textit{aedes Catuli},\textsuperscript{161} corresponded perfectly to Varro’s aviary.\textsuperscript{162}

One of two known temple dedications by a Catulus may coincide with this \textit{aedes}. The first, a temple to Iuturna \textit{in campo Martio}, has been associated with C. Lutatius Catulus, who defeated the Carthaginians in 241 BC. Coarelli has linked this construction with Temple A, while Ziolkowski sees it as Temple C.\textsuperscript{163} The second dedication by a Catulus takes two forms: statues to Fortuna Huiusce Diei on the Palatine and a temple in the Campus Martius. Q. Lutatius Catulus,\textsuperscript{164} consul in 102 BC and a possible descendant of C. Lutatius Catulus,\textsuperscript{165} may have had a hand in both, following his victory at the Battle of Vercellae in 101.\textsuperscript{166} Pliny records a dedication by this Catulus of statues at a shrine to Fortuna in the \textit{vicus Fortunae Huiusce Diei} on

\textsuperscript{159} Varro \textit{rust.} 3.5.9-12; cf. Van Buren and Kennedy 1919, 61-2, and Coarelli 1980, 211.
\textsuperscript{160} Varro \textit{rust.} 3.5.12. Though possibly modeled after the Temple, Varro’s aviary is not unique. Comparable aviaries may be found in wall paintings in the \textit{Villa of Julia Felix} and Houses I.iv.25, VI.i.7, VI.ix.6, and VII.vii.16 at Pompeii, and in the gardens of the \textit{Villa at Diomed}. Van Buren 1925, 111, and 1932, 10-2.
\textsuperscript{161} Boyancé 1940, 69; Coarelli 1981a, 37-9.
\textsuperscript{162} Moreover, a tufa wall separating Temples A and B, together with its statue bases, would have delimited an area in front of Temple B reminiscent of a \textit{tabula literaria}. Marchetti-Longhi 1956-1958, 45, 48 and 70, and 1970-1971, 10 and 20.
\textsuperscript{164} For Catulus’ philhellenism, see Cic. \textit{nat. deor.} 1.28.79, Gell. 19.19.10, and Beard and Crawford 1985, 19.
\textsuperscript{165} Regardless of their true relationship, Q. Lutatius Catulus would have claimed a blood connection, which presumably influenced the location of his temple (see below).
\textsuperscript{166} Q. Lutatius Catulus is known to have dedicated a temple to Fortuna Huiusce Diei on the anniversary of his Battle vow. Plut. \textit{Mar.} 26.2; cf. Boyancé 1940, 67, Coarelli 1981a, 38, and Richardson, jr. 1992, 156.
the Palatine,\textsuperscript{167} which coincided with the founding of a new temple to Fortuna Huiusce Diei, most likely in the Campus Martius.\textsuperscript{168}

This temple foundation commemorated not only the fortune that favored Catulus’ win,\textsuperscript{169} but also, as Cicero explains, Fortuna \textit{nam valet in omnes dies}.\textsuperscript{170} Fortuna Huiusce Diei, acknowledged as a force intervening in the daily lives of all Roman citizens, shows clear elements of Tyche, the Greek goddess of Fortune and Fate. In the wake of Rome’s first exposure to Greece, Fortuna’s oracular abilities, once equal to her roles in fertility and transport,\textsuperscript{171} came to prominence. Like Tyche, with whom she was assimilated, Fortuna was acknowledged in victory dedications as the divinity whose favor might ensure Rome’s success and continued prosperity.\textsuperscript{172}

\textbf{The Round Temple, Tibur (#64)}

Two late Republican temples crown the acropolis at Tibur, one of the most ancient and important cities of Latium.\textsuperscript{173} A rectangular temple, dating to the first half of the second century BC,\textsuperscript{174} stands to the north of the Round Temple (#64) added to its precinct when the acropolis was extended to the east with an artificial terrace.\textsuperscript{175}

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\textsuperscript{167} This shrine was probably set up by L. Aemilius Paulus. \textit{Aust. de sacris aedibus} 26; Platner and Ashby 1929, 216.

\textsuperscript{168} Plin. \textit{nat.} 34.54 and 60; Boyancé 1940, 65-7.

\textsuperscript{169} Based on its comparison to Varro’s aviary, Coarelli (1997, 283-4; cf. Plut. \textit{Mar.} 26.3) suggests that the Temple of Fortuna Huiusce Diei’s ornament included astrological motifs connected with Catulus’ victory and the Temple’s dedication day.

\textsuperscript{170} Cic. \textit{leg.} 2.28. This can be contrasted with Q. Fulvius Flaccus’ foundation to Fortuna Equestris in 180-174 BC, which commemorated Fortuna’s role in his victory over the Celtiberi as an isolated event (Liv. 40.40.10, and 42.10.5; Vitr. 3.3.2). Coarelli 1995d, 268-9.

\textsuperscript{171} See Chap. III #36.


\textsuperscript{173} For a summary of Tibur’s involvement with Rome, see Coarelli 1993a, 36-9.

\textsuperscript{174} The rectangular temple is a prostyle, tetrastyle, pseudo-peripteral building of tufa and travertine with five engaged quarter-columns along its side walls, four along its back, and engaged half-columns at its corners. Its podium moldings and column bases are similar to those of the Round Temple. Delbrueck 1907-1912, 14-6; Giuliani 1970, 122-35; Coarelli 1993a, 90-2. For its date, see Giuliani 1970, 131-2.

\textsuperscript{175} Prior to this addition, there was not enough space to accommodate a second temple between the first and the slopes of the acropolis. Clearly, the Round Temple was planned only after the rectangular temple was begun or built. Giuliani 1970, 122.
The terrace, supported on vaulted arcades excavated and built up from the slopes of the acropolis, together with the Round Temple, can be linked to a large-scale restructuring of the city in the late second century.\(^{176}\)

The Round Temple’s podium, consisting of a tufa and concrete core revetted in travertine, is approached by a set of eleven steps on axis with its door.\(^{177}\) The podium, ornamented with base and cornice moldings, supports a tufa and concrete wall, punctuated by a door and two windows, and a peristasis of ten of an original eighteen columns. The columns, with Attic bases and Corinthian capitals, are surmounted by an inscribed Ionic architrave and a frieze depicting garlands and bucrania. A simple cornice protrudes above the frieze, while ceiling coffers, engraved with flowers and acanthus leaves, span the ambulatory.\(^{178}\) Though nothing remains of its roof, R. Delbrueck has reconstructed a two-tiered, wooden truss\(^{179}\) in preference to the cupola shown in Renaissance drawings.\(^{180}\)

Inside the cella is a small treasury aligned with the Temple’s door. Like the inscribed architrave, it may help in determining the divinity to whom the Round Temple was dedicated as well as its patron. Identifying the treasury as a repository for the Sibylline Books,\(^{181}\) F. Coarelli links the Round Temple with the tenth sibyl Albunea, whose cult site was located near the acropolis.\(^{182}\) He reconstructs its

\(^{176}\) See Cat. #64 and Coarelli 1987, 104, and 1993a, 93. For contemporary buildings in Tibur, see Coarelli 1993a, 92.

\(^{177}\) Coarelli 1993a, 92-3; cf. Giuliani (1970, 137-8), who incorporates a landing.

\(^{178}\) Delbrueck 1907-1912, 18.

\(^{179}\) Delbrueck 1907-1912, 22; cf. De Angelis d’Ossat 1930, 244.

\(^{180}\) The drawings of G. da Sangallo and an anonymous artist whose work is in the Wiener Hofbibliothek portray a cupola, either egg-shaped with an oculus and surrounded by a balustrade or tiered like the Pantheon (#50). Delbrueck 1907-1912, 21-2; Giuliani 1970, 132.

\(^{181}\) Dion. Hal. 4.62.5; cf. Coarelli 1987, 105-6, and 1993a, 94. Albunea’s cult statue was depicted holding the Sibylline Books (Lact. inst. 1.6.12).

\(^{182}\) Hor. carm. 1.7.11; Stat. silv. 1.3.70 fol. For difficulties arising from the confusion between Albunea and Albula, see Tilly 1934, 29, Lyngby 1965, 95-8, and Coarelli 1987, 105. Coarelli (1987, 105-7) ascribes the rectangular temple to Tibur’s founder, Tiburnus.
inscription to refer to L. Gellius Poplicola, praetor in 94 and consul in 72 BC.\footnote{For Gellius’ career, see Coarelli 1987, 107.} As part of his political and religious duties, Poplicola may have transferred the Sibyline books from Tibur to the Temple of Jupiter Capitoline at Rome in 83.\footnote{Tagliamonte 1996, 144-8.} If Coarelli is right in suggesting that Gellius’ name replaces an earlier inscription and signifies a consular date,\footnote{Coarelli 1987, 106-7. The ablative case would suggest such a solution, though as it reads now, the inscription is almost impossible to reconstruct.} its present inscription may indicate a re-dedication of the Temple following the \textit{damnatio memoriae} of its founder.\footnote{Coarelli 1987, 110. This would be unlikely if the original founder was a priestly college acting under a Sibyline mandate.} Although Coarelli’s interpretation is appealing, it is more prudent, like C. F. Giuliani,\footnote{Giuliani 1970, 133.} to leave the question of the Round Temple’s attribution open.

\textbf{The Shrine and Temple of Fortuna Primigenia, Praeneste (#30-1)}

The Sanctuary of Fortuna Primigenia at Praeneste is a vast, terraced complex that rises from the forum of the city into the hill behind it.\footnote{The layout of the complex is comparable to the Hellenistic sanctuary at Kos and the city of Pergamon at its height under Eumenes II (197-159 BC). Taken by itself however, the upper Sanctuary, with its three-sided portico, theatrical cavea and terminal Temple, resembles Italic sanctuaries at Tibur (Hercules Victor) and Gabii (Juno). Coarelli 1987, 52-3.} The religious buildings of the forum constitute the “lower Sanctuary,” while the “upper Sanctuary” comprises the terraced area, the hemicycles, and the Shrine (#30) and Temple (#31) of Fortuna.\footnote{These function as separate and self-sufficient units. For the lower Sanctuary, see Coarelli 1993a, 131-7; while among its more significant features are the 4\textsuperscript{th} c. BC “\textit{Antro delle Sorti}” (see Mingazzini 1978, 211-7), a site linked with Fortuna’s oracular abilities (see Brendel 1960, passim, and Coarelli 1987, 67-79), and the late 2\textsuperscript{nd} c. Temple of Isis, a goddess ideologically related to Fortuna (Vitr. 1.7.1; cf. Coarelli 1976, 339, 1987, 79-82, and 1993a, 135-6, and below).} The upper Sanctuary was probably constructed between 110 and 100 BC,\footnote{Degrassi 1978, 149-63; Coarelli 1976, 337-9 (last quarter of the 2\textsuperscript{nd} c. BC); vs. Gullini 1973, 760-4 and 778-9 (mid-2\textsuperscript{nd} c.).} decades before Sulla conquered the city and transformed it into a colony of
Rome. This date is supported by architectural and sculptural remains from both Sanctuaries as well as inscriptions, which record the involvement of local merchants and magistrates in founding Praeneste’s upper Sanctuary and elaborating her forum.

The Shrine was located on the Terrace of the Hemicycles, while the Temple stood behind the large hemicycle that crowns the complex. The Shrine, sited in front of the Terrace’s eastern exedra, rose from a well revetted in tufa opus incertum. Its podium supported seven Corinthian columns, a Doric entablature and a conical roof, while a stone transenna topped by metal grillwork filled out its intercolumnations. A large circular altar and a base, which may have supported a marble cult image, stood next to the Shrine and were accompanied by a set of fountains or lustral basins placed beside the Terrace’s stairs.

From an architectural standpoint, the Shrine most closely resembles the late Hellenistic Rotunda at Ilion (#14). Consisting of a drum with Doric pilasters, windows and a cone-shaped roof, the Rotunda is recalled by the Shrine in size, composition, and very possibly, function. Sited on the city’s acropolis, it served as

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191 Several scholars date the building work at Praeneste to Sulla’s occupation: Magoffin 1978, 85-6 (the upper Sanctuary only); Lugli 1954a, 305-8, Kähler 1978, 241, and Romanelli 1967, 51-5 (both Sanctuaries). For a summary of their arguments, see Lugli 1954a, 308, and for a refutation, see Gullini 1954 and 1973, 779-95.
192 See #30-1.
193 A number of negotiatores, whose names are preserved on Delos, are of Praenestine origin. Coarelli 1976, 338; Degrassi 1978, 163.
194 Using these inscriptions, the municipal Fasti, dedications of freedmen, and epigraphs from tombs, Degrassi (1978, 149-63) compiled a list of the ancient Praenestine gentes, among whom he discovered a close correspondence with the Sanctuary’s benefactors.
195 Bronze coins taken from the well, which date between the reigns of Vespasian and Constantine II, attest to the longevity of the Sanctuary. Fasolo and Gullini 1953, 148.
196 Lacking evidence for drainage, it seems unlikely that the well held water. Fasolo and Gullini 1953, 147-8.
197 Coarelli (1987, 52) attaches ritual importance to the number seven, since the exedrae also employ seven columns.
198 Fasolo and Gullini 1953, 149-52 (entablature); Coarelli 1987, 50 (roof).
199 Coarelli 1987, 50.
200 Based on these and the high number of votive objects discovered on the Terrace, Coarelli (1987, 52) concludes that this area was of particular importance to Fortuna’s cult.
Ilion’s *omphalos*, while F. Coarelli suggests that, like the Mundus at Rome (#49) and the Monopteros at Pompeii (#28), the Shrine constituted the *mundus* of Praeneste.\(^{201}\)

Accessed via stairs from the Terrace of the Hemicycles, a second terrace and a hemicycle, formed from a curved portico and theatrical cavea, fronted the Temple of Fortuna Primigenia. Traces of this Temple, visible inside the Palazzo Barberini, include foundations and two concentric walls of *opus incertum*. Drawing from a record of its destruction in 1298\(^{202}\) and Renaissance sketches by P. Ligorio and fra’ Giacondo, Coarelli reconstructs the Temple as a large circular structure roofed with a cupola.\(^{203}\) This drum, he suggests, was approached via an opening at the back of the hemicycle, which provided access to a set of ramps running perpendicular to the Temple\(^{204}\) and possibly, to ramps or stairs sited in-between the Temple’s outer and inner cella walls.\(^{205}\) Recognizing that the narrow width and flat gradient of this area is antithetical to Coarelli’s reconstruction, F. Rakob puts forward a simpler solution.\(^{206}\) To account for its elevated cella, he places a stairway between the entrance to the Temple precinct via the portico and the Temple’s perimeter wall.\(^{207}\)

Remains and ancient sources suggest that the Temple contained a bronze cult statue, a black marble statue, and an olive tree that produced honey.\(^{208}\) Fortuna’s role as an Italic mother goddess is emphasized by the bronze statue, which shows her

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201 Coarelli (1993a, 200) cites a pre-Republican phase in the well’s construction, which he links with Praeneste’s foundation (see below).
202 This text (quoted in #31) compares the Temple to the Pantheon (#50).
203 Coarelli 1987, 43 and 56; vs. Rakob and Kleibrink 1990, 69-71 and 76. All three rightly reject Kähler’s (1978) proposal of a monopteros.
204 These ramps, possibly intended as service entrances, would have provided a way of approaching the Temple from outside the upper Sanctuary. Coarelli 1987, 58 and 61.
205 This reconstruction is based primarily on fra’ Giacondo. Coarelli 1987, 58-60 fig. 20.
207 Lauter (1979, 410) is unclear about the existence of a perimeter wall, while Rakob (1992, fig. 13) rejects it entirely.
seated and suckling the infants Jupiter and Juno. The marble statue, incorporating elements of Tyche and Isis, accentuates Fortuna’s oracular abilities, brought to prominence through her assimilation with Tyche. This duality is supported by the existence of two buildings commemorating Fortuna: the Shrine, if correctly identified as the Mundus, associated with the Praeneste’s origins, and the Temple linked with the Sanctuary’s construction during a period of intense Greek influence. To this period can be dated the first mention of Praeneste’s Fortuna as an oracular goddess, and of the yearly festival which recognized both roles by commemorating Fortuna’s relationship to Jupiter, her oracular abilities, and her maternal gifts.

The Shrine of Hermes and Maia, Delos (#10)

In the late second century BC, religious fraternities representative of the Italian merchant classes dedicated a series of monuments in the so-called ‘Agora of the Compétaliastes’ or ‘the Italians’ on Delos. Foremost among them were the Hermaists, founded in honor of Hermes-Mercury some thirty or forty years before, when the Italian community first became prominent on the island. Their

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209 Fortuna is represented as Jupiter’s nurse in Servius Tullius’ Temple of Fortuna Primigenia on the Capitoline (Plut. quaest. Rom. 74.106, and fort. Rom. 10; Aug. civ. 6.7.1; cf. Sabatucci 1988, 172-4, and Aronen 1995g, 273-5) and conversely, as Jupiter’s daughter on inscriptions (CIL XIV 2852-3, 2856-8, 2860, and 2863-72; cf. Pease 1923, 491, and Champeaux 1982, 24). The dualities inherent in her cult are reflected in the cult images of the two Fortunae of Anitium and on coins minted by Quintus Rustius, magistrate in 19 BC. Brendel 1960; Simon 1990, 63-4.

210 Isis is particularly appropriate as the deity of maritime commerce, the means by which the Sanctuary's construction was probably financed (see above). Fasolo and Gullini 1953, 259-60; Gullini 1973, 766-7; Coarelli 1993a, 135. For other cult images of Fortuna with oracular connections, see Brendel 1960, passim, and Coarelli 1987, 74-9.

211 Similar are the two Venuses honored at the Shrine of Venus Cloacina. Coarelli 1993c, 290-1.

212 The Shrine may also have fulfilled an oracular role, if it held sortes or lots (cf. Cic. div. 2.41.85-6).

213 It is possible, as Hanson (1959, 34) suggests, that Temple began as a cave shrine, like the “Antro delle Sorti” in Praeneste’s forum (see above), and was rebuilt as an oracular site in the late Republic.

214 The maternal component of her festival rivaled the Matralia celebrated at the Temples of Fortuna and Mater Matuta in the Forum Boarium. Champeaux 1982, 60.

215 See #10.

216 For the Hermaists, see Hatzfeld 1975, 349. Other fraternities include the Apollonaists and the Poseidonaistes, honoring Apollo and Poseidon-Neptune respectively.
dedications in the Agora, identified on a large commemorative plaque,\textsuperscript{217} include a round Shrine to Hermes, the god of commerce, and his adoptive mother Maia (#10).

According to the Shrine’s bilingual inscription,\textsuperscript{218} it formed the focal point of a small sanctuary to Hermes, surrounded by a peribolos\textsuperscript{219} and embellished with a Doric and an Ionic monument, altars and cult statues.\textsuperscript{220} The Shrine rose from gneiss foundations and a two-step podium of Naxian marble with four Doric columns, an inscribed Ionic entablature, and a conical roof.\textsuperscript{221} Though little more than a treasury,\textsuperscript{222} the Shrine serves as an elaboration of a more modest monument erected to Hermes and Maia in the Sanctuary of Apollo in the mid-second century.\textsuperscript{223}

This divine pair were frequently worshipped together both in Rome, where Maia originated, and in the Greek world, the home of Hermes who became assimilated with the Roman god Mercury.\textsuperscript{224} As a dedication to Hermes, the Shrine recalls a Hellenistic tholos linked with Hermes and the Muses at Knidos\textsuperscript{225} and the fifth century BC Temple of Mercury at Rome (#47).\textsuperscript{226} More generally, as a dedication intended to promote commercial interests, it may be compared to tholoi in market buildings or \textit{macella} found throughout the Roman world, which, by the Imperial period, may have had religious as well as mercantile associations.\textsuperscript{227} On Delos, the construction of this sanctuary points to the increased importance of the

\begin{itemize}
  \item[217] Hatzfeld 1912, 103. By extension, the Shrine, as a round commemorative monument, is comparable to the Hellenistic Monument of Lysicrates (#3).
  \item[218] This inscription (\textit{ID} 1738 = \textit{CIL} III\textsuperscript{2} 14203) is remarkable in so far as the Greek and Latin texts are not equivalent; one mentions the divinities honored by the dedication and the other establishes the nature of the offering.
  \item[219] Hatzfeld 1912, 165.
  \item[220] See #10, Ardaillon 1896, 436, Hatzfeld 1912, 103, and Bruneau-Ducat 1983, 117.
  \item[221] Salviat 1963, 260; Binder 1969, 94-7. Its roof, carved to represent radiating bands of tiles, finds parallels in the Monument of Lysicrates at Athens (#3) and the Arsinoeion at Samothrace (#58). Salviat 1963, 260.
  \item[222] Seiler 1986, 146.
  \item[223] Hatzfeld 1912, 163-4.
  \item[224] Hatzfeld 1912, 349-50; Roussel 1987, 272. For an examination of their possible chthonic and agrarian symbolism, see Robert 1939, 89.
  \item[225] See Passuello-Disegna 1976, 21, for the Heroon of Antigonas Gonatas.
  \item[226] See Chap. III #47.
  \item[227] De Ruyt 1983, 300.
\end{itemize}
Hermaist fraternity by the end of the century, further enhanced in the mid-first century BC, when they dedicated the Shrine to Hermes-Mercury.  

**Round temples founded in the first century BC:**

While examining the evidence for late Republican round temples, it is possible to lose sight of other, equally significant, ways in which the round form was used in contemporary architecture. With varying amounts of Greek input, the form appeared in funerary, commercial and bath buildings both in and outside of Rome, as well as in second style wall painting. Cylindrical tombs like the Mausoleum of Caecilia Metella, domed drums that number among the bath buildings at Baiae, and the first peripteral market buildings at Pompeii and Morgantina, like round temples, reveal the form’s amazing range and versatility. Wall paintings, which depict round buildings in urban or rural settings, demonstrate the array of contexts suitable for the form.

The wall paintings are additionally significant for recording a class of round buildings, including temporary shrines and pavilions, too ephemeral to be preserved by the archaeological record. Though intended as permanent temples, little more evidence can support the existence of three late Republican temples cited by W. Altmann: the Heroon of Eumelos, Vesta or Ceres near Naples (#20), the Temple of Feronia at Nazzano (#21), and the Temple of the Genius near Stabiae (#60). More substantial evidence points to the foundation of round shrines to Cybele (#34), Bacchus (#32) and Venus (#55) at Rome.

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228 Hatzfeld 1975, 349.
229 De Ruyt 1983, 137–49 (Pompeii, late 2nd c. BC), 102-14 (Morgantina, late 3rd c.-180 BC).
230 For round shrines shown in urban and rural contexts, see Robert 1939, 82-8, and for depictions of round shrines to Venus-Aphrodite, see #55 below.
231 It should be noted that most buildings illustrated in wall paintings were partly, if not wholly imaginary.
The Tholus of Cybele and the Shrine of Bacchus, Rome (#34 and 32)

In one of his epigrams, Martial traces a route from the Roman Forum to the house of Proculus. As he advises the way, he points out notable landmarks along it, including the Temple (#57) and Atrium of Vesta in the Forum and the colossus of Sol, formerly of Nero, which stood on the site of the later Temple of Venus and Roma. Instead of delaying in front of the colossus, he suggests that the traveler make a turn

\[ \textit{hac qua madidi sunt tecta Lyaei / et Cybeles picto stat Corybante tholus}. \]

These words of Martial imply that a Shrine of Bacchus (#32), a “dwelling of Lyaeus,” existed near the top of the via Sacra and was accompanied by a Tholus of Cybele (#34). Cassius Dio may make another passing reference to the Tholus, when he relates a decision to reorientate its cult statue after the death of Julius Caesar. If taken together, these passages define a span during which the Tholus existed, namely from the middle of the first century BC through the late first century AD, while some archaeological evidence connected with it and the neighboring Shrine of Bacchus extends this span through the mid-second century.

Based on the topographical information supplied by Martial, the Tholus has been linked with a set of circular foundations discovered near the later Basilica of Constantine. With a modest diameter, these foundations recall the dimensions of

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232 Mart. epigr. 1.70.9-10.
233 His house may have stood on the Palatine or the slopes of the Velia (Mart. epigr. 1.70.6). For analyses of the route, see Graillot 1912, 333, Lugli 1947, 175-6, and Bruhl 1953, 197-8.
234 Mart. epigr. 1.70.9-10. For Martial’s use of \textit{tholus}, see Chap. II ‘Ancient terminology and conceptions of the round form.’
235 The topographical context of Martial’s poem, as well as the archaeological evidence, makes it difficult to believe that he is referring to the Temple of Magna Mater on the Palatine (as suggested by Rodrigez Almeida 1999e, 338).
236 Cass. Dio 46.33.3; cf. Lugli 1947, 174. This decision would be illogical in the context of the south-facing Temple of Magna Mater on the Palatine. Coarelli 1982, 36. For the cult statue of the Palatine temple, which incorporated the black stone from Pessinous, see Esdaille 1908, 368-74, Pensabene 1996a, 206-8, and below.
237 While Cassius Dio wrote in the mid-1st c. BC, Martial’s epigram has been dated to 85-86 AD. For Imperial evidence pertaining to both buildings, see Chap. VI #32 and 34.
238 These may date to the Domitianic period. See Chap. VI #34.
other roadside shrines, most notably that of Venus Cloacina on the lower via Sacra.\textsuperscript{239} For the Shrine of Bacchus, F. Coarelli proposes a semicircular exedra opposite the Medieval porch. He relates the two buildings based on an Antonine medallion, which may illustrate a temple of Liber set within a curved portico.\textsuperscript{240} Coarelli’s hypothesis is flawed in that, although Antoninus Pius restored the Shrine, the exedra does not enclose a building of comparable size to his entablature,\textsuperscript{241} nor does its location to the south of the via Sacra make it a likely pair for the Tholus of Cybele.\textsuperscript{242}

Beyond the Tholus’ possible diameter, little is known about the appearance of either building in the late Republic. Martial describes the Tholus as painted with images of the Corybantes, possibly on its ceiling,\textsuperscript{243} while Cassius Dio implies that its cult statue was visible from the road.\textsuperscript{244} The exact date of and motivations behind the foundations of both buildings are equally ill-documented. Coarelli has speculated that P. Cornelius Scipio Corculum built the Tholus in recognition of the role his father, P. Cornelius Scipio Nasica, played in introducing Cybele’s cult to Rome in 204 BC.\textsuperscript{245} Although Nasica’s popularity surged in the late Republic and early Imperial period, Coarelli’s proposed relationship between Corculum’s house and the exedra he mistakenly attributes to Bacchus’ Shrine can lend no support to his hypothesis.\textsuperscript{246} Similarly, Palmer’s identification of the Shrine with the 36 BC rebuilding of a shrine

\begin{footnotes}
\item[239] Like the Tholus, the Shrine faced west. Coarelli 1993e, 290-1.
\item[241] See #32.
\item[242] It was probably located farther up the Palatine or the Velia. Paus. 8.46.5; Bruhl 1953, 199.
\item[243] With an ornamented ceiling, the Tholus may have resembled the Rotunda at Termessos (#62) or the Hadrianic Temple of Tyche at Side (see Chap. VI #59).
\item[244] The cult statue was presumably visible enough from the exterior for Cassius Dio to remark on a change in its orientation. Whether this suggests that the Tholus lacked cella walls is debatable.
\item[246] For alternative dating theories, see Jordan and Hülsen 1907, 103, and Graillot 1912, 332.
\end{footnotes}
to Mutinus Titinus, an Etruscan god whom he associates with Liber, is purely speculative.247

The Tholus’ location on the via Sacra, between the Temples of Vesta and the Penates,248 seems appropriate in light of Cybele’s Anatolian origins.249 More generally however, the prime position of both the Tholus and the Shrine reveals the esteem in which Cybele and Bacchus were held in the late Republic.250 As a protector of the State and the mother of the gods,251 Cybele and her neighbor Bacchus, who oversaw young men’s transition into adulthood,252 played prominent roles in first century and early Imperial Rome. Although both gods are ultimately derived from the Greek world, their round shrines have no direct Greek precedents. In view of their size and location however, they recall the Monument of Lysicrates in Athens (#3) and the Rotunda at Termessos (#62),253 while as shrines to Cybele and Bacchus, they look forward to Imperial dedications both in and outside of Rome.254

The Shrine of Venus, Rome (#55)

The Shrine of Venus (#55) formed part of the vast horti Sallustiani, gardens created in the late Republic, which numbered among the most favored Imperial residences from the first century AD.255 Excavated in the sixteenth century, the

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248 For the Temple of the Penates, see Chap. VII #52.
249 Coarelli 1982, 37.
250 For the cults of Cybele, see Roller 1999, and of Liber, see Bruhl 1953. That her cult was strong is attested by Magna Mater’s temple on the Palatine, built to accommodate her cult image in 191 BC (Liv. 29.14.13-4, 36.36 and 37.2; Vir. ill. 46.3; Prud. mart. Rom. 206; Serv. Aen. 7.188; Iuv. 3.138 fol.), rebuilt in 111 (Val. Max. 1.8.11; Obseq. 39; Ov. fast. 4.348) and enlarged in 3 AD (R.Gest.div.Aug. 19; Cass. Dio 4; Suet. Aug. 57; Mon. Ancyr. 4.19). Roller 1999, 288, 311 and 313-4.
251 Bruhl 1953, 16; Sabbatucci 1988, 105.
252 However, the Tholus of Cybele lacked the high socle that characterizes both Greek shrines.
253 In particular, Commodus dedicated a round shrine to Liber Pater Commodianus at Portus (#29).
254 For the Horti Sallustiani, see Santangelo 1941, 177-91 and Castelli 1988, 60.
Shrine was described by Flaminio Vacca,\textsuperscript{256} drawn by Pirro Ligorio or Onofrio Panvinio, based on a sketch of Ligorio,\textsuperscript{257} and illustrated on contemporary maps.\textsuperscript{258} Taken together, these sources, possibly supplemented by Pietro Sante Bartoli’s remarks of 1620, enable the building to be reconstructed with reasonable certainty.

Vacca discusses the remains of a shrine “di forma ovata,”\textsuperscript{259} which he discovered near the Porta Salaria.\textsuperscript{260} He describes it as surrounded by a peripteros of yellow Corinthian columns, while, inside the shrine, he remarks on pairs of alabaster columns flanking its four entrances and a set of steps descending to its elaborate, marble pavement.

Although neither Vacca nor Bartoli, who may comment on the Shrine’s use of materials,\textsuperscript{261} ascribes it to Venus, R. Lanciani has connected the plan by Ligorio or Panvinio, cited as depicting the Shrine of Venus \textit{hortorum Sallustianorum}, with their reports.\textsuperscript{262} It shows half of a round building ornamented with interior and exterior niches and colonnades. Using measurements provided by Panvinio,\textsuperscript{263} C. Hülsen has filled out the plan to include a peristasis of sixteen columns, twelve exterior niches,\textsuperscript{264} four entrances flanked by pairs of interior columns, and a set of interior steps.\textsuperscript{265} Though substantially in keeping with the Renaissance plan, Hülsen follows Vacca’s descriptions.

\begin{footnotes}
\item[256] Vacca, Nardini and Flaconiere 1704, 58, quoted in #55.
\item[258] See #55.
\item[259] In the absence of evidence to suggest that Romans built “oval” temples, Vacca’s shrine should be understood as round.
\item[260] Vacca uncovered the Shrine in the vigna of his father Gabriele Vacca, see #55.
\item[261] It has been questioned whether Bartoli is referring to this or another temple, see Hülsen 1889, 271, and Castelli 1988, 54-5; vs. Lanciani 1888, 3-4.
\item[262] Lanciani 1888, 3-4. For the description appended to the plan, see \textit{Cod. Vat. Lat.} 3439 f. 28r, \textit{Cod. Par. fonds St. Germain} 86 = \textit{Cod. Ital.} 1129, and Hülsen 1889, 271-2.
\item[263] Hülsen 1889, 271-2.
\item[265] The existence of interior steps has led Hülsen (1889, 271-3) to compare this building to the ‘Temple of Minerva Chalcidica’ (#48), concluding that it was a nymphaeum.
\end{footnotes}
description in reconstructing the Shrine’s doors and interior, and moreover, does not include the platform, which Panvinio claims raised it above the surrounding area.266

In addition to the Shrine’s dedication cited by Ligorio,267 other inscriptions have come to light which relate to this building. They record dedications made by Imperial freedmen or slaves at the Shrine.268 Moreover, Renaissance maps may depict the Shrine as a domed round building269 set within a rectangular portico, apsidal at one end.270

In view of its location, F. Coarelli has proposed that Julius Caesar, whose gardens were incorporated into the Horti Sallustiani following his death,271 either built the Shrine or was gifted it by Julius Theopompus.272 Moreover, he suggests that the Shrine, if designed after the Temple of Aphrodite at Theopompus’ native Knidos (#16),273 may have celebrated a Greek-style Venus-Aphrodite. While the Roman Venus was recognized as the mother of Aeneas and the patron of the gens Iulia, most notably in Caesar’s Temple of Venus Genetrix,274 in the late Republic, a new Venus emerged through association with the Greek goddess of love and fertility.

266 See above.
267 See above and Lanciani 1888, 6. Though occasionally doubted, as Ligorio saw the Shrine shortly after its excavation (demonstrated by its inclusion in his 1561 plan of Rome) and as A. Fulvio (1527, 14) reported the discovery of a similar inscription, it is unlikely that the dedicatory inscription was fabricated. Castelli 1988, 57.
268 For these inscriptions, found in the Horti’s necropolis on the via Salaria, see CIL VI 122 and 4327 = ILS 3184 and 32451, and CIL VI 32468 quoted in #55; Lanciani 1888, 10-1, and Coarelli 1999k, 116.
269 A comparable roof appears in Peruzzi’s drawing of the Temple of Hercules Victor in foro Boario (#43).
270 Although the Shrine is often confused with the Temple of Venus Erycina (see #55), Renaissance maps (see Castelli 1988, 57 fig. 4) demonstrate that the two are not equivalent. Using these maps, Coarelli (1999k, 115-6) links a rectangular temple found at the intersection of Via Gaeta and Via Curatone to the Temple.
272 Coarelli 1983b, 215, 1995k, 10-1, and 1999k, 117.
273 Comparable in this respect is the Temple of Venus Erycina (see above), to which Strabo (6.2.6) refers as a “copy” of the Temple of Aphrodite at Eryx. See RRC I 448 (denarius, minted by Considius Nonianus in 63-57 BC, which depicts the Temple as rectangular) and Castelli 1988, 53-4, 59 and fig. 1.
274 For Venus’ cult, see Schilling 1954.
Coarelli’s identification may be supported by the Shrine’s use of Greek images of Aphrodite, including an Archaic head, and lavish materials, evocative of Hellenistic palaces, in its decorative program. More generally, the abundant precedents for tholoi to Aphrodite as well as evidence for her and Venus’ worship in garden settings make viable the dedication of a round shrine to Venus-Aphrodite.

In addition to her Temple at Knidos, Aphrodite was honored with a round shrine in her sanctuaries at Aegina and Paestum. In literature, she is documented as the recipient of an Aphrodision beside gardens on Hieron II’s ship, a tholos next to sleeping compartments on Ptolemy Philopater’s yacht, and a shrine, together with Zeus, in the Agora at Sparta. Tholoi were set up in gardens throughout the Greek world to honor Aphrodite Ourania, while Venus Fisica is depicted in Pompeian wall paintings as the recipient of round shrines. Moreover, inscriptions note that Venus received a temple in the Horti Serviliani and remains point to a round temple

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275 Santangelo 1941, 139–40; Simon 1990, 214-5. Additionally, pieces of two Classical “thrones” or altars have been uncovered which, if genuine, are significant for their depiction of scenes integral to Venus’ cult. de Franciscis 1958, 119-20. Coarelli (1999k, 116) links them and the Archaic head to the Temple of Venus Erycina.
276 Also unlike the Temple of Venus Genetrix, the Shrine may have honored a private cult, which would explain its omission from the Regionary Catalogues.
277 Aegina: Robert 1939, 6 and 423; Paestum: Sestieri 1953, 131-3 fig. 39.
278 Athen. 5.207d-e; Vitr. 6.3.10. La Rocca (1986, 20-1) suggests that this room, dated ca. 275-215 BC, functioned as a cenatio.
279 This shrine (Athen. 5.205d-e) may be dated to 222-204 BC. Moreover, K. Fittschen (1978, 544-7) suggests that Athenaeus’ descriptions of the decoration and layout of both shrines inspired paintings in Room 2 of Casa dei Grifi at Pompeii, the atrium of the Villa dei Misteri, and the villa at Torre Annunziata.
280 This oikodomema peripheres (Paus. 3.12.11) contained statues of both gods.
283 Plin. nat. 36.23, 25, and 36; NA 28 = AE 1959, 145 and 300; vs. Degrassi cited in Chioffi 1996b, 84.
or nymphaeum on the Viminal,\textsuperscript{284} ornamented with a copy of Praxiteles’ Aphrodite from Knidos.\textsuperscript{285}

Even without evidence to affirm the link between Theopompus and Caesar, and hence the Temple at Knidos and the Shrine in the Horti Sallustiani, the Roman building was undoubtedly influenced by the Knidian Temple and Greek shrines to Aphrodite in its form and decoration. Its garden setting moreover fits within the Greek tradition of celebrating Aphrodite for her role in ensuring both human and agricultural fecundity. Although not foreign to the Italic goddess, this aspect of Venus’ character was reinforced through her assimilation with Aphrodite.\textsuperscript{286}

III ANALYSIS

TEMPLE FOUNDATION AND LOCATION

In addition to the availability of funds and space, a variety of factors influenced the foundation and siting of late Republican round temples. The founding of a temple required a \textit{votum}, a \textit{locatio} and a \textit{dedicatio}.\textsuperscript{287} A \textit{votum} or vow signified a contract made between the vow maker and a divinity, whereby the vow maker obliged himself to build a temple in the divinity’s honor.\textsuperscript{288} Through the process of \textit{locatio}, he joined forces with augurs and magistrates to locate the temple as well as to arrange

\textsuperscript{284} Its remains have been uncovered near the intersection of via Palermo and via Venezia. Mancini 1913, 170; Neuerberg 1960, Cat. 159.
\textsuperscript{285} For the original, see #16. The statue and Temple at Knidos may be depicted in some Pompeian wall paintings, see Moorman 1988, 204 and 225-6.
\textsuperscript{286} Simon 1990, 213-28.
\textsuperscript{287} These were commonly followed by an \textit{inauguratio} for a \textit{templum} and a \textit{consecratio} for an \textit{aedes}. Ziolkowski 1992, 203-9.
\textsuperscript{288} See Liv. 5.21.2-3, 8.9.6-8 and 10.19.17, Macr. \textit{Sat.} 3.9.7-11, and Ziolkowski 1992, 193-7, for the formula employed by vow makers.
for its design and construction. On its completion, a magistrate\textsuperscript{289} oversaw its \textit{dedicatio}, a ceremony that marked the temple’s \textit{dies natalis} or dedication day.\textsuperscript{290}

Temples were usually vowed and constructed by local magistrates and occasionally by priestly colleges,\textsuperscript{291} though in the late Republic, a number of victorious generals vowed and built temples in commemoration of their campaigns.\textsuperscript{292} Booty won in the Hellenistic East financed and ornamented many of these new “victory monuments.” The Mundus (#49) attributed to Romulus, Numa’s Temple of Vesta (#57) and Shrine of the Camenae (#33), and the Temple of Hercules Victor \textit{in foro Boario} (#43), if built by the consul and censor, P. Cornelius Scipio Aemilianus,\textsuperscript{293} represent more traditional foundations, as may the Temple of Hercules Victor \textit{ad portam Trigeminam} (#44), the work of the consul and censor L. Mummius Achaicus or the prosperous olive merchant M. Octavius Hersennus.\textsuperscript{294}

M. Fulvius Nobilior’s dedication to Hercules and the Muses (#42) is a prime example of a Temple constructed \textit{ex manubiis}\textsuperscript{295} to house a sculptural collection acquired as plunder from foreign campaigns.\textsuperscript{296} Similarly, the Temple of Fortuna Huiusce Diei (#38), if built by Q. Lutatius Catulus, the champion at Vercellae and consul in 102 BC, would provide evidence for the phenomenon of temples vowed on campaign and constructed when the vow maker had obtained a position of political importance at home.

\textsuperscript{289} This magistrate could be the vow maker elevated to the status of censor or \textit{duumvir}.
\textsuperscript{290} The \textit{dies natalis} marks the date of future festivals celebrated in connection with the temple. Ziolkowski 1992, 203-9.
\textsuperscript{291} Ziolkowski 1992, 198-9.
\textsuperscript{292} For a list of mid-to-late Republican temples vowed and constructed by victorious generals, see Ziolkowski 1992, 200.
\textsuperscript{293} See #43 above.
\textsuperscript{294} Servius (\textit{Aen.} 8.363) and Macrobius (\textit{Sat.} 3.6.11) relate that Hersennus, as a private individual, asked for public land on which to build a private shrine (\textit{impetrato a magistratibus loco}). Ziolkowski 1992, 218, and see #44 above.
\textsuperscript{295} Though funded by booty, temples built \textit{ex manubiis} required the approval of the Senate to commemorate public cults. Ziolkowski 1992, 235-6 and 241-50.
\textsuperscript{296} Though vowed on campaign, the Temple can be linked to his consulship.
Like the Temple of Hercules Victor by the Tiber, if vowed by M. Octavius Hersennus, the Shrine of Venus (#55) may mark a dedication made by a private individual. F. Coarelli has proposed that Julius Theopompus, a prominent citizen of Knidos, gifted the Shrine to Julius Caesar.\textsuperscript{297} For its location in Caesar’s Horti, the Shrine may be a private foundation\textsuperscript{298} in contrast to other late Republican round temples, which honored public cults.\textsuperscript{299}

Outside of Rome, epigraphical evidence suggests that the Shrine and the Temple of Fortuna Primigenia at Praeneste (#30-1) were built by magistrates and \textit{negotia}t\textit{ores} drawn from noble Praenestine \textit{gentes}. Similarly, a local magistrate constructed the Monopteros at Pompeii (#28), while on Delos, the Hermaists, a fraternity drawn from the Italian merchant classes, dedicated the Shrine of Hermes and Maia (#10).\textsuperscript{300} By contrast, the Round Temple at Tibur (#64), if an \textit{aedes} of the sibyl Albunea, may have been mandated by the Sibylline books and constructed by a priestly college.

Once a temple was vowed, the vow maker attended to its \textit{locatio}. This procedure consisted of choosing a site, determining the boundaries of its inaugurated area,\textsuperscript{301} locating the temple within this area, and arranging for its construction.\textsuperscript{302} Frequently, the temple would be sited within an existing religious district like the Porticus Minucia, the whole of which was probably inaugurated prior to the addition of the Temple of Fortuna Huiusce Diei.\textsuperscript{303} Similarly, a temple might be founded in a

\textsuperscript{297} See #55 above. It is possible that Theopompus, as a foreigner, was not in a position to dedicate a shrine which he was legally entitled to vow.
\textsuperscript{298} The Temple of Bona Dea, built by a Vestal virgin, was also a private foundation. Chioffi 1993, 197-9.
\textsuperscript{299} Even if P. Cornelius Scipio Corculum founded the Tholus of Cybele as a private individual, as it is sited on the via Sacra, it almost certainly commemorated a public cult.
\textsuperscript{300} As at Praeneste and possibly Pompeii, it is likely that the Hermaists used income from trade to finance their Shrine.
\textsuperscript{301} See Chap. III part II.
\textsuperscript{302} Ziolkowski 1992, 203-9.
\textsuperscript{303} Ziolkowski 1992, 212-4; cf. Chap. III part II.
region with long-standing ties to the divinity to whom it was dedicated. Examples include the Temples of Hercules Victor in and around the forum Boarium and the Mundus and Temple of Vesta in the Roman Forum, since the forum Boarium’s connections to Hercules can be traced back to the Archaic period as can the Mundus’ and Vesta’s links to the Forum.304

Further, a temple’s location could be determined by law305 or by political ambition. Locations along the “via triumphalis,” the route followed by the triumphal pompa, were especially valuable for victorious generals who wished to boast of their power and prestige.306 Finally, the nature of the cult played a role in site selection. Only the temples of native or long assimilated cults could be located within the city pomerium.307 As a result, most of the late Republican temples in Rome, both round and rectangular, stood outside the city walls.

In the late Republic, building work in Rome focused on temples and private victory monuments308 in the zone of the Campus Martius.309 In addition to accommodating foreign cults, the Campus Martius provided more space than was available within the pomerium310 for the temples of established cults and deities. Among its added attractions was the Circus Flaminius, a grand monument built by the democratic leader C. Flaminius Nepos in 220 BC, and its access to the triumphal route. The Temple of Hercules and the Muses occupied a prime location along the

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304 Moreover, both show the strict adherence to the cardinal points that was characteristic of 7th c. building. Scott 1993b, 162-4; cf. Coarelli 1983b, 219 (the Mundus’ W orientation). For the principles behind temple orientation, see Chap. III and Gros 1976a, 147-53.
305 Ziolkowski 1992, 219-33 (the lex Papiria).
306 This would explain why the foundations of the bitter enemies M. Fulvius Nobilior and M. Aemilius Lepidus, who built the Temple of Juno Regina in circo Flaminio, stood beside each other. Ziolkowski 1992, 218.
307 Cass. Dio 40.47.3-4 and 53.2.4; cf. Ziolkowski 1992, 266-7 and 276-7. Ziolkowski (1992, 275) considers this due to a shortage of space, rather than hostility towards foreign cults.
308 The Theater of Pompey, ca. 61-55 BC, is a prime example as is the rebuilding of the Temple of Jupiter Optimus Maximus employing marble columns from the Olympeion at Athens (Plin. nat. 36.45 and Gell. 2.10). Zanker 1988, 21-4.
309 Ziolkowski (1992, 292 and 300) details other reasons why the Campus Martius may have appealed to late Republican temple builders.
310 For disputes surrounding the limits of the pomerium, see Andreussi 1999, 96-105.
triumphal route and opposite the Circus Flamininus. Likewise, the Temple of Fortuna Huiusce Diei benefited from its proximity to the Circus Flaminius, as did the Temples in and around the forum Boarium, which were near the Circus Maximus. The Temple of Vesta and the Mundus, by contrast, filled highly prominent positions within the pomerium in the midst of buildings essential for the political and religious guidance of Republican Rome.

Adjacent to the Roman Forum, the Shrine of Bacchus and the Tholus of Cybele were sited on the via Sacra. Though not as ancient as Vesta’s cult, Bacchus received his first temple at Rome in 493, and Cybele was introduced into the Roman pantheon in 204 BC. Moreover, the prominent positions of their Shrines may be explained as a factor of their size, whereas its function as a tribute to the patron of the gens Iulia probably determined the setting of the Shrine of Venus.

Like Rome’s Campus Martius, the cities of Latium underwent a vast reorganization in the late Republican period. The Round Temple at Tibur and the Shrine and Temple of Fortuna Primigenia at Praeneste reveal the extensive planning involved in the layout of cities throughout Latium. An elaborate substructure was built to accommodate the Round Temple on the acropolis at Tibur, the most prominent area of the city. Its location may have been inspired by cult factors, as the goddess Albunea had both a domus and a nemus near the Anian falls that flow beneath the acropolis.

311 In addition, both temples are near the Circus Flaminius as Vitruvius (1.7.1) suggests, (templa) Herculi, in quibus civitatis non sunt gymnasia neque amphiheatra, ad circum. Ziolkowski 1992, 299.
312 The Temple of Ceres, Liber, and Libera was ordered by the Sibylline books in 499 or 496 BC (Dion. Hal. 6.17.2-3; Tac. ann. 2.49.1), constructed, and dedicated in 493 (Dion. Hal. 6.94.3). Moreover, the festivals associated with it, the Ceralia and the Liberalia, formed part of an Archaic or “Numan” cycle of ca. 6th c. date. Coarelli 1993d, 260.
313 Ov. fast. 4.343 fol. Roller 1999, 263-71 and 275-8. For the Palatine temple built in 191 BC, see #34 above.
314 If the nearby rectangular temple is dedicated to Tibernus, a god frequently connected with Albunea, then religious arguments for the Round Temple’s location gain greater support.
Similarly, the terraced Sanctuary of Fortuna Primigenia at Praeneste showcases its Shrine and Temple on the slope of a hill near a nemus of the goddess. The Shrine acts as a prelude to the Temple, which crowns the complex. The whole of the terraced sanctuary, built to link both buildings, relies on the symmetric, axial and theatrical qualities of Greek sanctuaries to manipulate the ascent of its visitors and impress them with its grandeur.

The Monopteros at Pompeii and the Shrine on Delos, comparable in size to the Shrine at Praeneste, occupied less prominent positions. Both stood in fora, the former in the Foro Triangolare, a crowded precinct next to Pompeii’s theater and athletic district, and the latter, together with other shrines, altars, and statues, in the Agora of the Hermaists near Delos’ port.

Whereas these Shrines balance their proximity to significant monuments against available building sites, the patrons at Tibur and Praeneste placed such a high value on dramatic locations and established cult sites that they manipulated natural areas to provide settings for their round temples. In-between these two extremes are the round temples of Rome. As at Pompeii and Delos, some were sited in areas considered politically and socially desirable based on their relationship to specific monuments and, as at Latium, religious sites. While, thanks to Rome’s expansion into underdeveloped areas like the Campus Martius, others were allowed considerable freedom in their site selection as well as scope for sophisticated layouts.

315 The Temple of Feronia at Nazzano (#21) is comparable to both sites since a lucus (Cato frg. 30; cf. Verg. Aen. 7.697) provided the principal impetus for its foundation.
316 See #30-1 above.
317 This area would have held strong appeal for a merchant fraternity.
318 Prior to the 2nd c. BC, there is no evidence for any significant development on the hillside at Praeneste. With a “blank slate,” the Sanctuary’s architects and patrons enjoyed almost unlimited choice in designing and laying out the site.
319 For example, Q. Lutatius Catulus’ desire to link the Temple of Fortuna Huiusce Diei with that of his illustrious “ancestor”, C. Lutatius Catulus, motivated its awkward placement in-between two rectangular temples in the Porticus Minucia Vetus.
320 The Temple and Porticus complex of Hercules and the Muses provides a good example.
Whatever their environment, the shape of late Republican round temples sets them apart from their surroundings. This is most notable in the forum Boarium, where the two Temples of Hercules Victor, lacking boundary walls, showcase their circularity from every angle. Moreover, like its round form, the style and orientation of the Temple of Hercules Victor ad portam Trigeminam distinguishes it from the nearby Temple of Portunus, as the Round Temple at Tibur forms a marked contrast to the rectangular temple. Whether chosen for religious or aesthetic reasons, the round form is well suited to temples of the late Republic built in settings determined by cult, political and personal considerations as well as finances and available space.

BUILDING MATERIALS AND TECHNIQUES

Masonry techniques

The materials and techniques used in the construction of late Republican round temples accord well with building trends current in Roman Italy in the second and first centuries BC. Among these trends, the use of *opus quadratum* masonry, consisting of stone blocks laid as headers and stretchers, is most notable in the walls of the Temple of Hercules Victor ad portam Trigeminam (#44), while *opus incertum* and *opus reticulatum*, types of stone-faced cement work, can be found in the foundations and walls of round temples in Rome, Tibur, and Praeneste. The former technique, Vitruvius claims and the archaeological record suggests, is typical of Classical and Hellenistic Greek practice, while the latter two are native to Italy.

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321 As in the Temple by the Tiber, one may assume that *opus quadratum* was used in the marble Temples of Jupiter Stator and of Mars in Circo, see ‘Introduction’ above.
322 Vitr. *arch.* 2.8.5-7. For Vitruvius’ opinions on building materials, see below and Gros 1982, 673 and 675-9.
323 For examples in Greece and the Greek East, see Lugli 1957, 179.
324 Vitr. 2.8.1: *Structurarum genera sunt haec: reticulatum quo nunc omnes utuntur, et antiquum quo* *incertum dicitur.*
Prevalent in the second century BC, *opus incertum* was gradually replaced by *opus reticulatum* in the first century. It is not surprising therefore that, while most round temples employ *incertum* work, only one, the Temple of Fortuna Huiusce Diei (#38), makes extensive use of an early *reticulatum*.326

These two methods, coursed stone and cement work, were employed by Roman architects to simulate Greek temples, whose marble construction they admired, though found costly and impractical to recreate. Stone blocks with a marble facing were used in the Temples of Hercules Victor by the Tiber, and possibly of Vesta (#57), Hercules and the Muses (#42), Hercules Victor *in foro Boario* (#43), and Venus (#55).327 The walls of the Tiber Temple consist of a socle, formed from header and stretcher blocks of marble and travertine, and courses of travertine revetted with marble plates.328 The marble plates, in turn, are drafted to resemble a pattern of taller and shorter courses.329 With a tall socle and coursed masonry, the Temple’s elevation closely recalls that of Hellenistic buildings like the Tholos at Epidauros (#13) and the Hieron and Arsinoeion (#58) at Samothrace.

In their composition and ornament, late Republican or early Augustan travertine-faced mausolea, like the round tomb of Caecilia Metella, draw from the same sources. Buildings like these may have influenced the development of First style wall painting, which depicts varied masonry courses resting on a plinth or

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325 Coarelli (1977, 16-8) postulates that population pressures of the late 2nd c. BC necessitated the development of building materials that could be quickly, easily and cheaply produced by a large slave-powered work-force and used for projects for which they were not specifically tailored.

326 Coarelli 1977, 13. Other examples of *opus reticulatum* work include the Lacus Iuturnae as rebuilt in 116 BC, the Horrea Galbana, ca. 108, and the House of the Griffins, ca. 100 BC, while the first fully developed example of *opus reticulatum* is the Theater of Pompey, ca. 61-55 BC. Coarelli 1977, 10-5; Sear 1982, 75-6; Adam 1994a, 129-30.

327 B. Peruzzi’s drawing (see #43) suggests that the Temple of Hercules Victor *in foro Boario* was either constructed of ashlar masonry or stuccoed to mimic marble.

328 The revetment was adhered to its backing with U-shaped clamps following Hellenistic practice. Rakob and Heilmeyer 1973, 12.

329 In its original form, the cella wall had seventeen courses of tall and short masonry above the socle. Strong and Ward Perkins 1960, 11.
As a complement to this influence, the drafted margins of the Temple by the Tiber may imitate a style that originated in stucco work. Stuccoed wall paintings provide a perfect analogy with late Republican round temples that used the new Italic techniques of *opus incertum* and *opus reticulatum*. While most temples employed *opus incertum* in their foundations, the Round Temple at Tibur (#64) and the Temple of Fortuna Primigenia at Praeneste (#31) had cella walls constructed of this material and stuccoed to approximate the forms and styles of Greek masonry. Creating these walls required both the skills of a master craftsman and the talents of an architect. Accounting for personal styles, it seems probable that, like First style wall paintings preserved in building interiors, their work was varied enough in its components and colors to produce wall surfaces that were more representational than realistic.

**Roofing techniques**

With few exceptions, the roofs of late Republican round temples are not sufficiently preserved to reveal their form and the materials and techniques used in their construction. Those that are extant, namely the roofs of the Shrine of Fortuna Primigenia at Praeneste (#30) and the Shrine of Hermes and Maia on Delos (#10), follow Greek precedents in their design. Comparable to the Monument of Lysicrates at Athens (#3) and the Rotunda at Termessos (#62), their roofs consist of marble plates, sculpted to resemble an overlapping network of tiles. For both structural

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331 Ling (1973, 23) points to other examples of cross-influences between real and painted architecture.
332 See ‘Building components’ below.
333 While stucco both protected and regularized wall surfaces (see Adam 1994a, 121-2 and 245), Vitruvius (7.17) considered it a second rate alternative to marble for well-designed buildings.
334 See ‘Stucco and mosaic work’ below.
335 These were meant to mimic the roofs of larger Greek tholoi, see below.
and aesthetic reasons, it seems likely that most late Republican round temples followed suit in preferencing Greek to Roman methods of roof construction.

A Greek roof consisted of a wooden ridge beam or truss\textsuperscript{336} and a system of wooden rafters,\textsuperscript{337} anchored to the top masonry course and cornice of a temple’s walls. The rafters determined the roof’s slope, while terracotta or marble tiles comprised its ornament.\textsuperscript{338} By contrast, some Roman roofs took the shape of domes, formed from closely-fitted stone blocks\textsuperscript{339} or a matrix of concrete.\textsuperscript{340} While both Greek and Roman roofs relied on a temple’s foundations and cella walls to carry their weight, domes, made of much heavier materials, required additional support. Of the round temples, only the Temple at Praeneste (#31) had thick enough foundations, walls and, as reconstructed by F. Rakob, buttresses to sustain a domed roof.\textsuperscript{341}

Also in favor of timber roofs are slots for roofing supports found on the coffer blocks of the Round Temple at Tibur (#64) and remains of marble protomes and antefixes discovered near the Temples of Fortuna Huiusce Diei (#38) and of Hercules Victor \textit{ad portam Trigeminam} (#44). Employed in Greek tholoi like the Philippeion at Olympia (#22), these features would not be out of place in late Republican round temples, which favored Greek models in other aspects of their form and design.

**BUILDING COMPONENTS**

\textsuperscript{336} In the prop-and-lintel system, the ridge beam was supplemented by perpendicular props that supported the apex of the roof. Hodge 1960, 35 and 39.
\textsuperscript{337} The top of the rafters were secured with tie beams to maintain the shape of the roof. Hodge 1960, 45.
\textsuperscript{338} Hodge 1960, 61-8.
\textsuperscript{339} For details concerning the construction of stone arches, vaults and domes, see Adam 1994a, 158-73.
\textsuperscript{340} \textit{Opus caementicum} was modeled on wooden scaffolding, mirroring the shape of the dome. Adam 1994a, 174-81.
\textsuperscript{341} While the domes shown in Renaissance drawings on the Temple of Hercules Victor \textit{in foro Boario} and the Shrine of Venus may mark Imperial reconstructions, the foundations and \textit{opus reticulatum} walls of the Temple of Fortuna Huiusce Diei would have been strong enough to support the lighter domes of the mid-Imperial period, see Chap. VI ‘Roofing techniques.’
The building components of late Republican round temples are derived from a variety of sources. Their foundations, where known, are Greek in form, yet employ Roman materials.\(^{342}\) The foundations of the Temples of Hercules Victor *ad portam Trigeminam* (#44) and of Fortuna Huiusce Diei (#38), like those of the Tholos at Epidaurus (#13) and Philippeion at Olympia (#22), consist of two stone rings, placed below the Temples’ cella and colonnade. In the Temple of Hercules by the Tiber, this second ring extends beneath its stairs, like the radial bands that support the Shrine of Hermes and Maia on Delos (#10). Also of stone are the foundations of the Temple of Hercules and the Muses (#42), while *opus incertum* is used in the rings of the Temple of Fortuna Primigenia at Praeneste (#31) and the core of both the Temple of Vesta (#57) and the Mundus (#49).\(^{343}\) Though of Italic fabric, the latter temples, like the Tiber Temple, incorporate a pit for ashes and offerings, comparable to that at Epidaurus. By extension, the Monopteros at Pompeii (#28) includes a substantial well in its foundations, while the Shrine of Fortuna Primigenia at Praeneste (#30) rests on the opening to a well, much like the Rotunda at Ilion (#14).

While the krepides of the two Temples of Hercules Victor and the Shrine on Delos are highly Greek in flavor,\(^{344}\) the high podia and frontal stairs that characterize the majority of round temples recall Italic practice.\(^{345}\) Though influenced by Etruscan styles, high podia, when elaborated with base and cornice moldings drawn from the Greek repertory, form pedestals that depart from the Etruscan conception of a podium as an integral part of a temple.\(^{346}\) This Roman innovation, most evident in the Temple of Fortuna Huiusce Diei and the Round Temple at Tibur (#64), extends to the podia of

\(^{342}\) While arcaded terraces are common features of Greek and late Republican sanctuaries, Tibur preserves the only example used in connection with a round temple.

\(^{343}\) To facilitate the laying of the foundations, their trenches were probably lined with a wooden frame. Adam 1994a, 81-6.

\(^{344}\) The Tholoi at Delphi (#11-2) and Olympia (#22) provide good examples.

\(^{345}\) Both the Monopteros at Pompeii and the Shrine at Praeneste lacked podia.

\(^{346}\) Shoe 1965, 23.
contemporary rectangular temples such as the Round Temple’s pair at Tibur and the Temple of Portunus.  

Like the moldings which decorate Roman podia, the round temples’ columns adapt ornaments derived from Greek sources to Italic tastes. While this is most notable in their bases and capitals, the columns’ shafts demonstrate both an acceptance of Greek practice and a willingness to vary and experiment with Greek forms. Following Greek models, the shafts of the Temple of Fortuna Huiusce Diei and the Round Temple at Tibur are independent of their column bases. In the Temple of Hercules by the Tiber and the Shrine at Praeneste however, the column bases are carved of one piece with the tip of the shafts’ flutings. This method of extending the base is characteristic of late Republican practice.  

Ornamental grillwork set into the intercolumnations of a peristasis, as in the Temple of Vesta and the Shrine of Fortuna Primigenia, is drawn from Greek sources, but finds wider use in the buildings of Republican Italy. In the Greek world, this means of obstructing interior views is confined to temple architecture like the Parthenon and, on a smaller scale, the Rotunda at Ilion. In Roman Italy however, modest secular constructions like Varro’s aviary at Casinum as well as temples employed this treatment.  

Though the cella walls of late Republican round temples could follow either Greek or Roman practice in their construction and decoration, their form was without doubt based on Greek models. The peripteral Tholoi at Delphi (#12), Epidauros, and Olympia are reflected in the Temples of Vesta and Hercules Victor, in the first phase of the Temple of Fortuna Huiusce Diei, in the Round Temple at Tibur, and in the

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347 Adam 1994b, passim.  
348 For additional examples, see Rakob and Heilmeyer 1973, 6. While the Monopteros at Pompeii lacked bases, it is impossible to determine which method the remaining round temples followed.  
349 Varro rust. 3.5.9.
Shrine of Venus in the Horti Sallustiani (#55), while the Temple of Hercules and the Muses, the second phase of the Temple of Fortuna Huiusce Diei, and the Temple of Fortuna Primigenia recall the closed drums of the Skias at Athens (#6) and the Arsinoeion at Samothrace (#58). Smaller tholoi like the Monument of Lysicrates (#3) and the Rotunda at Ilion may have provided precedents for the Shrine at Praeneste, the Mundus and the Shrine of Hermes and Maia.

Moreover, the large doors flanked by windows and framed with travertine of the two Temples of Hercules Victor and of the Round Temple at Tibur may be based on a similar arrangement in the Philippeion. Although there is much that is specifically Greek or Roman about these temples, their final design results from a skillful amalgamation of Greek models and Roman technical innovation that heralds the development of a new indigenous architecture.

DECORATIVE DETAILS

The podium molding

Although the high podia of the late Republican round temples are a legacy of the Etruscans, the moldings used to ornament the bases and crowns of these podia are drawn from a Greek repertory of styles and motifs. The most common decorative element in Roman podium molding is the cyma reversa, an inverted S-curve, that is visible in its pure form in the crown moldings of Temple C of the Area Sacra di Largo Argentina and of the Temple of Portunus by the Tiber. It is also used as both the

350 Of the Greek tholoi, only the Tholos at Epidaurus with its rectangular ramp and the Temple of Artemis at Stymphalos (#61) with its two-roomed pronaos employ both round and rectangular forms.
351 In view of their size, these tholoi may also have inspired the design of the Shrine of Bacchus (#32) and the Tholus of Cybele (#34).
352 See Vitruvius 4.6, for a discussion of the orders and proportions of doors and their architraves.
353 Shoe 1965, 144.
crown and base moldings of the rectangular temple at Tibur and as the base molding of the Round Temple (#64).

The crown molding of the Round Temple at Tibur, by contrast, combines a cyma recta, an S-curve, with a cyma reversa and a fascia or vertical rise.\(^{354}\) The cyma recta, a favorite motif of the Romans from the late second century BC,\(^ {355}\) is frequently used with other standard forms to produce highly ornate moldings.\(^ {356}\) The crown molding of the Shrine of Fortuna Primigenia at Praeneste (#30), like the crown molding of the Round Temple at Tibur, employs a combination of a cyma recta, a cyma reversa and a fascia.\(^ {357}\) Similarly, a cyma recta is the dominant element of the crown molding of the Temple of Fortuna Huiusce Diei (#38) in its first phase,\(^ {358}\) while, in the simplified moldings of its second phase, the cyma recta is retained together with a cyma reversa.\(^ {359}\)

The base moldings of the podia of Roman round temples receive a variety of treatments involving the same decorative elements that shape their crown moldings. While the base moldings of the Round Temple at Tibur and the Shrine at Praeneste are simple cyma reversas,\(^ {360}\) those of the third phase of Temple A and of the first phase of the Temple of Fortuna Huiusce Diei are complex combinations of cyma reversas, tori and scotias. Even the cyma recta topped by a fillet and concave cavetto of the Temple of Fortuna Huiusce Diei’s second phase, much like the base molding of

\(^{354}\) Projecting significantly, it closely resembles the cornice moldings of the Forum Holitorium’s Temples of Janus and of Juno Sospita, as rebuilt in the 1st c. BC, see Shoe 1965, 157, 162-4 and 173, and Giuliani 1970, 136-7.

\(^{355}\) Shoe 1965, 33.

\(^{356}\) The Temple of Portunus by the Tiber explores the potential of this form to its fullest with a complex crown molding uniting several cyma rectas, cyma reversas and fascias with fillets. Shoe 1965, 174.

\(^{357}\) The cyma recta is combined with two fascias and a cyma reversa. In composition, it is similar to, though more elaborate than, the equivalent moldings on Temple A’s podium in its third phase (see #38 above), and the moldings of the Temple of Veiovis in Rome, ca. 78 BC, and of the Temple of Hercules in Ostia, ca. 100-80 BC. Shoe 1965, 175, 177-8 and 182-3.

\(^{358}\) Shoe 1965, 175, 181 and 184

\(^{359}\) They are comparable to the base moldings of the rectangular temple at Tibur and the Temple of Iuno at Gabii. Shoe 1965, 157.
the Temple of Portunus, shows a skillful manipulation of available forms. The cyma reverse and the cyma recta, though based on common Greek motifs, shape moldings in Italy that are unparalleled in the Greek world.361

The column base

The column bases of late Republican round temples362 show variations on the Greek Ionic base.363 The Greek base, characterized by two tori flanking a fully defined scotia, is approximated in the first Italic examples of the late third century BC with two half rounds separated by a curved or vertical section.364 By the end of the second century, nearly all Italian column bases show some evidence of a scotia. This scotia or inverted half round is usually defined by fillets along the interior of the two tori.365 The bases of the Round Temple (#64) and the rectangular temple at Tibur include scotias shaped by a full lower fillet but lacking an upper fillet,366 while the bases of the Shrine of Fortuna Primigenia at Praeneste (#30), the Temple of Hercules Victor ad portam Trigeminam (#44), and the Temple of Portunus have scotias flanked by two full fillets.367

By contrast, the bases of the Temple of Fortuna Huiusce Diei (#38) and of Temple A in the Area Sacra di Largo Argentina include two well-defined scotias between tori. The double scotia has clear markings of Asiatic influence.368 A later

361 The cyma recta employed as a base molding in Italy, where it is rarely if ever used in Greece, gives an idea of the inventiveness of Italian craftsmen. Shoe 1965, 182.
362 For Vitruvius’ opinions on contemporary column bases, see Gros 1982, 684-5.
363 The Temple of Nike and the Erechtheion at Athens preserve good examples of the Greek Ionic base. Strong and Ward-Perkins 1962, 5. As a Doric temple, the Monopteros at Pompeii (#28) lacks column bases.
364 Shoe 1965, 191-3; Gros 2001, 495.
365 Examples of scotia both with and without defining fillets can be found in the lower Sanctuary at Praeneste. Shoe 1965, 193.
366 Strong and Ward-Perkins 1962, 8; Shoe 1965, 191-8
367 Shoe 1965, 196.
Reworking in stucco of the Temple of Fortuna Huiusce Diei’s bases to the Attic model betrays the trend towards more conventional forms that will characterize Imperial column bases.\textsuperscript{369} The standard Attic bases of the Shrine at Praeneste and of the Temples of Hercules Victor and Portunus in Rome are precursors of this trend.

The Corinthian capital in the late Republic

With the exception of the Tuscan Temple of Hercules Victor in foro Boario (#43), the Doric Monopteros at Pompeii (#28), and the Doric Shrine of Hermes and Maia on Delos (#10),\textsuperscript{370} late Republican round temples favored the Corinthian order for their column capitals. In their form and design, they owed much to the Corinthian capitals of late Hellenistic Greece and Asia Minor. In the fifth century BC, the order was developed in Greece for use in the interior of religious buildings like the Temple of Apollo at Bassae. The victory Monument of Lysicrates in Athens (#3) is the oldest surviving structure to employ an external Corinthian colonnade, a fashion that became popular in the third century. The order continued to evolve with great variation until the second century, when a canonical form developed.\textsuperscript{371} This form, used in buildings of the late Hellenistic period like the Arsinoeion at Samothrace (#58),\textsuperscript{372} the Olympeion at Athens and the Hekateion at Laguna, finds close parallels in the Corinthian capitals of late Republican Italy.

The “normal” or canonical Corinthian capital of the Hellenistic world was exported to Rome and Latium in the late second century BC. Where a capital carved by Greek workmen from Greek materials was not transported directly, imitations

\textsuperscript{369} Strong and Ward-Perkins 1962, 11-2.
\textsuperscript{370} The capitals of the Shrine of Venus in the horti Sallustiani (#55) are recorded as both Corinthian and Composite.
\textsuperscript{371} Gros 2001, 471-2.
\textsuperscript{372} These are the first “normal” Corinthian capitals known from Greek architecture. Roux 1992, 93.
worked by Italian craftsmen were employed in its place. The early history of the Corinthian order in Rome can be reconstructed from examining a few preserved examples. Among them are the Group A capitals of the Temple of Hercules Victor *ad portam Trigeminam* (#44), a capital in the Antiquario Communale, and fragments of capitals from the Temple of Fortuna Huiusce Diei (#38). These employ forms like highly ribbed leaves accentuated with points and hollows, vertical calyces, and curving helices. The naturalistic shapes of the Corinthian capitals from the Round Temple at Tibur (#64) and the Shrine at Praeneste (#30) are close in form and ornament to these Roman examples.

After this early blossoming of the order in Rome and Latium, few capitals may be found in the area until the late first century BC. Provincial buildings fill this gap with a range of Corinthian capitals, both richly ornamented with organic forms like the late second century BC examples and flatter and more stylized in line with capitals of the early Imperial period. Major efforts of the early Empire, like the Temple of Apollo on the Palatine, as well as the capitals of Groups B and C of the Temple of Hercules Victor by the Tiber, point to a trend in the design of Corinthian capitals towards less rounded and more ornamental shapes. The richness and adaptability of the Corinthian order held a lasting appeal for Italian craftsmen, who modified the Greek form with Italic motifs in a near endless array of examples from the late Republic through the end of the Empire.

**The Corinthian capitals of the round temples**

373 Rakob and Heilmeyer 1973, pl. 34.2; Gros 2001, 473.
374 von Hesberg 1981a, 21.
375 It is likely that the political chaos of the 1st c. had some influence on the number of public buildings built with the Corinthian order in Rome. von Hesberg 1981a, 22; Gros 1987, 57.
376 Gros 2001, 473.
The Corinthian capitals of the round temples of Rome and Latium provide a fairly coherent picture of the origins of the order in Rome. The Group A capitals of the Temple of Hercules Victor ad Portam Trigeminam (#44) rely heavily on late Hellenistic models. Like the capitals of the Hekateion at Lagina and the Church of the Apostles in the Athenian Agora, the Group A capitals are strikingly high and narrow with a 1:0.63 ratio of height to diameter.\(^{377}\) Similarly, they share an interest in the development of naturalistic forms and in the exploration of effects achieved with light and shade.\(^{378}\) All three capitals mark a clear division between the two lower tiers of overlapping acanthus leaves and the well articulated volutes and helices that scroll beneath the abacus.

The striking similarities between the Group A capitals and capitals produced in Greece and Asia Minor, as well as their material, has inclined F. Rakob and W.-D. Heilmeyer to propose a Greek origin. They believe that, like the capitals discovered in the Mahdia shipwreck, the Group A capitals were produced in Greece by Attic craftsmen and then transported with bosses to Rome, where finishing details were worked \textit{in situ}.\(^{379}\) The preserved lower half of a capital from the Temple of Fortuna Huiusce Diei (#38),\(^{380}\) although produced of local Italic stone, shows the same definition, arrangement of acanthus leaves and use of space that characterizes the capitals of Group A.\(^{381}\)

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\(^{377}\) Both the Hekateion and the Church of the Apostles have ratios of 1:0.66. Rakob and Heilmeyer 1973, 24.

\(^{378}\) Heilmeyer 1970, 35-6 and 123; Leon 1971, 155-7 pls. 55.2-3; Rakob and Heilmeyer 1973, 24; Gros 2001, 472.

\(^{379}\) The Gymnasium at Miletus boasts a late Hellenistic capital, similar in style to the Group A capitals, which preserves evidence of bosses. Rakob and Heilmeyer 1973, 23.

\(^{380}\) Like most capitals employed in large, late Republican buildings, those of the Temple of Fortuna Huiusce Diei were carved from two separate blocks. Strong and Ward-Perkins 1962, 12.

\(^{381}\) Though stylistically similar, the capitals of the Temple of Fortuna Huiusce Diei show more rounded and less precise carving. This may be due to the relative softness of their material (Anian tufa) and to their intended coating of stucco, which would dull more carefully articulated designs. Comparable capitals may be found in the Agora at Messene and the Tetrastilum at Ostia. Heilmeyer 1970, 36 and 53; von Hesberg 1981a, 21; cf. Leon 1971, 156-7.
Corinthian capitals from the forum, the upper Sanctuary, and the Shrine of Fortuna Primigenia at Praeneste (#30) include tiers of naturalistic leaves that begin to invade the zone of the thick, yet plastically modeled volutes and helices. The capitals of the Round Temple at Tibur (#64), though less organic in form, mirror the decorative qualities and spatial effects of the Praeneste capitals. The Tibur capitals have proportions and a decorative scheme that are comparable to the capitals of the Olympeion in Athens. At Praeneste and Tibur, the architectonic elements of the capital, the volutes and helices, become secondary to natural forms.

Like the capitals of Group A of the Tiber temple and the Temple of Fortuna Huiusce Diei, the Groups B and C capitals, which date to the Tiberian period, lay a greater emphasis on structural elements, while simplifying and ornamentalizing the organic qualities of the late Republican examples. Moreover, like Groups B and C, the Imperial capitals of the Tabularium and the Basilica Aemilia in Rome, which draw clear inspiration from Group A, give evidence of the far reaching influence had by the capitals of late Republican round temples on the development of the Corinthian order.

The entablature

In their design and ornament, the entablatures of late Republican round temples rely as much on Greek precedent as on Italic innovation. As Vitruvius

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382 Lauter-Bufe 1987, 51 and 82.
383 Moreover, comparable capitals are preserved from the Temple of Castor and Pollux at Cori and the "Temple of Jupiter" at Terracina. Fasolo and Gullini 1953, 436; Giuliani 1970, 139.
384 Fagerlind 1932, 125; Rakob and Heilmeyer 1973, 27; Gros 2001, 474-5.
testifies, Roman architects inherited the Doric entablature, with its plain architrave, triglyph-and-metope frieze, mutules, and cornice, and the Ionic entablature, with its divided architrave, continuous frieze, dentil course, and cornice, from the Greeks. While both forms proved suitable complements to a Corinthian colonnade, the Romans made improvements to the Ionic entablature, substituting modillions or brackets for Attic dentils. The modillion, inspired by traditional Hellenistic versions of the Doric mutule, may have found its first expression in the stucco work of First and Second style wall paintings. Coupled with Greek Ionic, it defined the Corinthian entablature that would inform the shape of the order in the Imperial period.

Of the round temples, the Shrine of Fortuna Primigenia at Praeneste (#30) preserves the only Doric entablature and the Mundus (#49) retains the only Ionic, while the Round Temple at Tibur (#64), the Shrine of Hermes and Maia (#10), and possibly the Temples of Fortuna Huiusce Diei (#38) and of Hercules Victor ad portam Trigeminam (#44) provide early examples of Corinthian. The Doric friezes of the podium and entablature of the Shrine at Praeneste show an alternating pattern of triglyphs and metopes with paterae and rosettes as well as bucrania in the podium.

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387 Vitr. 4.1.2-3 and 4.3.
389 Strong 1963, 171.
391 The S-curved modillions in the tepidarium of the Casa del Criptoportico at Pompeii are examples of the form used in wall paintings. Strong 1993, 174-7; Ling 1973, 49-50. For other examples, see von Hesberg 1981a, 27-32, and Adam 1994a, 201-7. However, Gros (1976a, 203-7 and 2001, 492-3; cf. Hesberg 1981a, 27 fol.) suggests that modillions developed in an architectural context, which was merely reflected in wall paintings.
392 Modillions were in general use by 50-40 BC. Strong 1963, 176.
393 As a Doric building, the Monopteros at Pompeii (#28) should be reconstructed with a Doric entablature.
394 The only ornament preserved from the Mundus’ entablature is a band of Ionic cymatia or egg-and-dart, which runs below its fragmentary cornice.
395 The cornice which protrudes above the Shrine’s entablature, worked on both sides, is identical to the crown molding of its podium. Fasolo and Gullini 1953, 149-52.
Though the rosettes and bucrania are drawn from the Greek repertory of styles and motifs, the paterae are a Roman creation of the late second century, only loosely based on Greek precedent. Further, Italic variation is notable in the way elements of the frieze are modeled. Among them, the rosettes with rays of pointed petals emanating from a central blossom assume a characteristically Italic form.

The garland frieze of the Round Temple at Tibur’s Corinthian entablature also introduces Italic innovations into a Greek decorative framework. The garlands of the frieze, which hang from the horns of bucrania and frame paterae and rosettes, are formed of acanthus-like leaves, blossoms and fruits. Both the “acanthusizing” of the leaves and the shape of the garlands, which ride thinly over the bulls’ horns yet fall in thick swags, are characteristic of the garland motif as it develops in Italy.

A marble plaque which may form part of the Temple of Fortuna Huiusce Diei’s frieze course is a delicate, highly stylized version of Tibur’s frieze. Instead of compact, thickly set swags alternating with sacred objects, thin tendrils of an acanthus plant blossom into rosettes. Though it is difficult to surmise how the frieze of the Temple of Hercules Victor by the Tiber looked, fragments of its geison with an Ionic slope suggest that it, unlike the Round Temple at Tibur, employed modillions beneath

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396 The base found nearby has a comparable Doric frieze, but a more complicated cornice. Fasolo and Gullini 1953, 49-50.
397 The Doric entablature of the Tholos at Epidaurus (#13) preserves the earliest examples of rosettes in monumental stone architecture, while the northern Propylaion includes some of the earliest bucrania. Phiales, similar to paterae in shape, are first used in a frieze from the so-called Ptolemaion and the Arisinoeion at Samothrace (#58). Drawing from these examples, Kraus (1978, 456-7) proposes a Ptolemaic origin for some of the decorative motifs used in the Doric order.
398 Paterae may derive from Greek skyphoi. Steffanelli et al. 1991, 30-3.
399 Italic rosettes are more clearly visible on the Apsidal Hall at Praeneste. Kraus 1978, 458, 460 and 467 fig. 2.
400 A simple cyma reversa and fillet cornice protrudes above the frieze. Delbrueck 1907-1912, 18; Gros 1976a, 217.
401 Kraus 1978, 460 and 464. Other early examples include friezes from the Temple of Portunus, the Tomb of Bibulus at Rome, and the round altar of Mercury in the Vatican. Honroth 1971, 12; Kleiner 1980, 42-3; von Hesberg 1981b, 204-5 and 209.
its cornice.\textsuperscript{403} Modillions, like the garlands, paterae and rosettes of the entablature’s frieze course, are indicative of the inventiveness of late Republican craftsmen, who felt free to adapt the orders of the Greeks to suit native tastes.

**Ceiling coffers**

The Round Temple at Tibur (#64) and the Temple of Hercules Victor \textit{ad portam Trigeminam} (#44) are the only late Republican round temples to preserve ceiling coffers. Each coffer block at Tibur contains two recessed panels with a central motif of a four-petaled flower beneath a four-leafed acanthus plant. While the use of superimposed acanthus leaves is peculiarly Italic, a rosette framed within a coffer has strong Greek associations.\textsuperscript{404}

The ceiling coffers of the Temple of Hercules Victor are very similar in style to those of the Round Temple, yet include bands of Ionic cymatia or egg-and-dart ornament around their recessed panels where the Tibur coffers have a plain strip. This carved enrichment of the coffer bands, though frequently used in Greek marble and wooden coffers,\textsuperscript{405} is exceedingly rare in Roman architecture before the end of the Republic.\textsuperscript{406} It demonstrates how the ceiling coffer developed gradually, transforming a Greek form with Greek and Italic elements as the coffer saw wider use.

**Stucco and mosaic work**

\textsuperscript{403} The late Republican Temple of the Dioscuri at Cori and the Tabularium in Rome also use modillions. von Hesberg 1980, 119 and 169.
\textsuperscript{404} The Tholos at Epidaurus (#13) provides good examples of ceilings coffers decorated with rosettes. Strong and Ward-Perkins 1962, 25.
\textsuperscript{405} There are comparable examples in marble in the Tholos at Epidaurus (#13) and the Temple of Athena Polias at Priene, and in wood, in the Hieron at Samothrace. Ling 1973, 50.
\textsuperscript{406} From the late Republic, stucco (see below) was commonly used to shape details of coffers, as in the vaulted hemicycles at Praeneste. Ward-Perkins 1989, 119-20.
Like carved and molded ornaments applied to architectural members, stucco and mosaic work enlivened the surface of late Republican round temples. R. Ling believes that the stucco work of the late Republic was born of Egyptian and Greek traditions of decorative plaster work. While the Egyptian tradition contributed molded relief ornaments, the Greek inspired a division of the stuccoed surface into forms drawn from monumental architecture. This combination resulted in the formation of a “Masonry style” in the fourth century BC, which developed into the First Pompeian style by the second century. Through depicting architectural elements like socles, masonry courses and cornices supported by modillons, First style wall painting was used to simulate marble temples, like that of Hercules Victor ad portam Trigeminam (#44), which set the standard of luxury in the late Republic.

The Round Temple at Tibur (#64) preserves some traces of First style stucco work on its exterior. Similarly, the column bases of the Temple of Fortuna Huiusce Diei (#38) show a later reworking in stucco. In addition to facing external walls and architectural members, stucco work was used to shape frieze details. The garland frieze of the Round Temple at Tibur, for example, employed a layer of stucco to elaborate stone forms, while the contemporary Temple of Portunus used stucco, without the benefit of stone, to mold elements of its frieze course.

Fragments of painted stucco discovered inside the cella of the Temple of Fortuna Huiusce Diei indicate that wall paintings formed part of the round temples’ interior decoration. This decoration took the form of either architectural ornament in

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407 Egyptian plaster casting dates back to the Eighteenth Dynasty (ca. 1570-1320 BC), while Greek stucco work has its origins in the Mycenean period. Ling (1973, 12-4) has suggested that the two strains merged when Egypt became part of the Hellenistic world.

408 Fourth century examples can be found in the Athenian Agora, at Samothrace and at Olynthos, though by the third century, the style had spread throughout the Hellenistic world and remained the most widely used form of interior decoration until the 1st c. BC. Ling 1973, 15.


410 For the Eastern and Western variations on this pattern, as well as additional types of molded decoration, see Ling 1973, 15-9 and 23.

411 The bases were reworked prior to their incorporation into the cella wall, ca. the mid-1st c. BC.
the First style or pictorial depictions in the Second.\footnote{In the Second style, figural scenes or illusionistic vistas are played out within an architectural framework similar to that of the First style.} A reference to historical paintings by Pacuvius,\footnote{Plin. nat. 35.4.19. The Greek paintings displayed in the Porticus Philippi (Plin. nat. 35.66, 114 and 144; cf. #42) should not be understood as examples of Second Style stucco work.} which F. Coarelli links with the Temple of Hercules Victor \textit{in foro Boario} (#43),\footnote{Coarelli (1992a, 86 and 164-80; cf. Gruen 1992, 118) speculates that these paintings, like the \textit{tabulae} of Hostilius Mancinus (Plin. nat. 35.23), depicted episodes from the Third Punic War and the siege of Carthage.} and to images of the Corybantes that adorned the Tholus of Cybele (#34),\footnote{Mart. epigr. 1.70.9-10 quoted in #34.} provide support for the use of Second style painting in cella interiors.

While paintings on stucco covered the temples’ walls and architectural ornament, mosaic pavements adorned the floors of their cellas and ambulatories. Fragments of black and white \textit{tesserae} discovered on the cella floor of the Temple of Fortuna Huiusce Diei and possibly the mixed marble pavement of the Shrine of Venus (#55)\footnote{Vacca, Nardini and Flaconiere 1704, 58, quoted in #55. However, this pavement cannot be dated with certainty.} signal the use of mosaics in late Republican round temples. Mosaic flooring, with origins in the Hellenistic East, continued to be employed in a wide variety of patterns and colors throughout the Imperial period. Similarly, the First and early Second style wall paintings of this period previse the development of painted stucco work under the Empire.

\textbf{Statuary}

In addition to exposing Rome to a rich and varied architectural tradition, conquests enabled her to benefit from Greece’s highly developed sculptural repertory. Roman generals, now able to experience Greek sculptural displays first hand, by their right as victors, seized statues of religious importance or aesthetic appeal to fund and decorate their own temple foundations. Round temples, like other victory temples of
the late Republic, exhibited Greek statues to underline the prestige and military might of their founders. Among those used in Roman round temples were the statue groups plundered from Greece and Ambracia to decorate the Temple of Fortuna Huiusce Diei (#38) and the Temple and precinct of Hercules and the Muses (#42). The Greek artist Scopas Minor, working in Rome, may have been responsible for the cult images of the Temples of Hercules Victor ad portam Trigeminam (#44) and of Fortuna Huiusce Diei. Due to their material, the bronze statues of Hercules discovered near his Temple in foro Boario (#43) and of Fortuna from her Temple at Praeneste (#31) are likely to have been Greek, as may have been, for their links to Greek religion, the second statue of Hercules in the forum Boarium and the statues of Isis-Tyche from Praeneste and Albunea from Tibur.

As in Greece, these statues were displayed both inside temples and in their immediate precincts. With few exceptions, most notably the Temple of Vesta (#57), the Shrine at Praeneste (#30), and the Shrine of Hermes and Maia on Delos (#10), each temple’s cult image was exhibited in its cella, while statues related in theme or artistic significance were displayed on adjoining statue bases. The forum Boarium, for example, as the principal cult site of Hercules in Rome, was arrayed with a variety of statues, altars and offerings, in addition to the Ara Maxima and the two Temples of Hercules Victor. Emphasizing different aspects of his cult, the statues associated with the Temples helped to fill out an area devoted to his worship. Similarly, the

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417 According to Pliny (nat. 36.25-7), Scopas is particularly known for a large group of Neptune, Thetis, Achilles and a sea thiasus displayed in a sanctuary dedicated by Cn. Domitius near the Circus Flaminius, as well as for statues of Apollo on the Palatine and Vesta in the horti Serviliani. Isager 1991, 154-5.
418 See Serv. Aen. 3.407 and 8.288, and Macr. Sat. 3.6.17 (forum Boarium), #31 (Praeneste), and Lact. inst. 1.6.12 (Tibur).
419 Its continuous fire prohibited the display of statues inside the Temple of Vesta, while the well beneath the Shrine at Praeneste and the limited floor space of the Shrine on Delos restricted their use of statuary. Instead, nearby bases may have supported the Shrines’ cult images.
420 See ‘The Temples of Hercules Victor in the forum Boarium area’ above.
421 See #43-4 above.
statues of Fortuna, linked with the Temple at Praeneste, focus on contrasting facets of her cult.422

In its second phase, several Greek statues were added to the sculptural program of the Temple of Fortuna Huiusce Diei. While her main cult image remained inside the Temple’s cella, two bases were added to flank its stairs. These bases, which may have supported up to twelve statues, could have precipitated the rebuilding of its podium and cella wall. Brought forward to replace its peripteros, this cella wall doubled the Temple’s floor space,423 creating a more imposing structure to visually balance its new sculptural displays.

While these statues were not thematically related to Fortuna Huiusce Diei,424 the statues incorporated into the Temple and precinct of Hercules and the Muses were directly linked to its cult and function. Introduced by M. Fulvius Nobilior, the Italic Hercules and Ambracian Muses served as the cult images of his Temple, the former placed inside its cella and the latter on an adjacent Greek-style schola. Numa’s Shrine of the Camenae (#33) positioned in front of the Temple counterbalanced the Greek Muses, while the Greek athletic statues introduced by L. Marcius Philippus set Hercules’ physical strengths in harmony with his mental acuity.425

More so than the sculptural displays of other round temples, the array of statuary exhibited in the Temple of Hercules and the Muses and the Porticus Philippi conveyed the clout and convictions of their founders. Through his use of plunder,426 Fulvius sought to legitimize his victory, while demonstrating to a wide audience the extent of his Greek tastes and literary ideals. Through building and adorning his

422 See #31 above.
423 See Chart #38.1.
424 See Cic. Verr. 2.4.4.126 and Plin. nat. 34.54 and 60; cf. Procop. bell. 1.15.11 outlined in #38.
425 See #42 above.
426 Though the extent of Fulvius Nobilior’s plunder was enormous (Liv. 39.5.15; cf. Liv. 38.9.13, Polyb. 21.30.9, Vir. ill. 52.2, and Gruen 1992, 108), he showed refined sensibilities in the Temple he dedicated and the objects he chose to display.
Porticus to complement Fulvius’ Temple, Philippus endorsed his claims and followed suit by using Greek statues to fuel his own political propaganda. While not uncommon in the late Republic, the desire to showcase booty with purpose-built spaces did not dominate the selection and display of statuary in round temples.

**PROPORTIONAL ANALYSIS (Charts IV.1-16)**

Vitruvius’ recommendations regarding the design of round temples and the columnar orders may be taken as a starting point for an analysis of the proportions employed in late Republican round temples. Greek tholoi provide another starting point as their influence on Roman round temples was widely felt. However, when Vitruvius’ prescriptions for monopteroi are applied to both Greek and Roman examples, only the Shrine of Fortuna Primigenia at Praeneste (#30) echoes his 1:10 correlation between lower column diameter and column height. Greek and Roman peripteroi are closer to his guide, with most showing a 3:5 relationship between their cella exterior and stylobate diameter, while, as reconstructed on the basis of B. Peruzzi’s drawing, the cella exterior and column height of the Temple of Hercules Victor in foro Boario (#43), and the finial and capital diameter of the late fifth and fourth century Tholos at Delphi (#12), have a 1:1 correspondence.

Similarly, when applied to Greek drums, the lower column diameter to column height ratio is usually ca. 1:10, while the drum exterior is equal to the

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427 Similarly, the *porticus Metelli* was built by Q. Caecilius Metellus Macedonicus in 146 BC to house Lysippos’ Granikos Monument. Isager 1991, 160-1.
428 See Chap. II ‘Vitruvius on round temple design’ for all references to Vitruvius’ text used below.
429 Cf. Wilson Jones 1989a, 42-3. Although they do not reflect Vitruvius’ 1:1 relationship between column height and stylobate diameter, both the Monopteros at Pompeii (#28) and the Shrine at Praeneste have a 3:4 correspondence regarding their total exterior measurements (both lack stylobates).
430 At 19:20 and 9:10, the Temple of Hercules Victor *ad portam Trigeminam* (#44) and the Temple of Fortuna Huiusce Diei (#38) come close.
431 The drum exterior has been substituted for the stylobate diameter, and the stylobate diameter to cella diameter relationship excluded.
column height of the Rotunda at Ilion (#14). Moreover, though not Vitruvius’ 1:2, most of the roof height to drum exterior measurements average at 1:5.\textsuperscript{433} On columnar proportions, namely column height and intercolumnation to lower column diameter, neither the tholoi nor the round temples follow Vitruvius’ design. Within the columnar orders however, both the Doric tholoi and the Monopteros at Pompeii (#28) show a high correlation.\textsuperscript{434} This does not apply to the Ionic order, where only the Philippeion’s (#22) base height to lower column diameter fits Vitruvius’ specifications, while for the Corinthian order, most employ capitals of a height equivalent to their lower column diameter.\textsuperscript{435}

When elements of the columnar orders not discussed by Vitruvius are compared to the lower column diameter, new patterns emerge.\textsuperscript{436} For example, Greek tholoi show a considerable range in shaft height ratios, while for round temples, the range is less broad with the Temple of Fortuna Huiusce Diei (#38), the Round Temple at Tibur (#64), and the Shrine of Fortuna Primigenia approximating an 8:1 relationship.\textsuperscript{437} With respect to interaxial dimensions between neighboring columns, most Greek and Roman examples range from three to four times the lower column diameter.\textsuperscript{438} The interaxial diameter between opposing columns shows no such correspondence.

\textsuperscript{432} The columns of the Arsinoeion at Samothrace (#58) are closer to 1:6.
\textsuperscript{433} The one exception, the Rotunda at Termessos (#62), recalls Vitruvius.
\textsuperscript{434} Since Vitruvius (4.3.1-4) relates the Doric module to the façade of a rectangular temple, all ratios are defined for round temples based on the relationship of one lower column diameter to two modules.
\textsuperscript{435} The proportional relationships supported by their abacuses have not been tested, but see Wilson Jones 1989a, 47-9, and 2000, 145-6
\textsuperscript{436} While some of the smaller measures may appear comparable, it should be noted that, due to their size, any variation is more significant. Even so, the Greek capital diameters to lower column diameters are consistently close to 1 1/4:1.
\textsuperscript{437} Cf. Wilson Jones 1989a, 43, and 2000, 148-9. Of the tholoi, only the Philippeion at Olympia’s (#22) interior columns have this ratio of shaft height to lower column diameter.
\textsuperscript{438} Exceptions include the Rotundas at Termessos and Ilion (#14), the external order of the Tholos at Epidaurus (#13), and the Skias at Athens (#6).
M. Wilson Jones, who has made an extensive study of columnar proportions, notes that for the Ionic order, the column height to shaft height ratio is frequently 10:9 or 11:10.\footnote{Wilson Jones 1989a, 57 n. 56 (examples). Wilson Jones (1989a, 61) notes that this relationship is not compatible with Vitruvius’ recommendations, which fix the heights of the base and capital with regard to the lower column diameter.} This holds true for the exterior order of the Philippeion and the interior order of the Arsinoeion, though also for the Doric sixth century Tholos at Delphi (#11), the Temple of Aphrodite at Knidos (#16), and the Rotunda at Ilion, and the Tuscan Temple of Hercules Victor \textit{in foro Boario}. His recommendation of 6:5 for the Corinthian order is employed by most tholoi,\footnote{Wilson Jones 1989a, 38, 1989b, 136, and 2000, 147. This ratio does not apply to the interior order of the Philippeion.} while of the round temples, only the Shrine at Praeneste and the Temple of Hercules Victor \textit{ad portam Trigeminam} (#44) show this relationship.

Moreover, instead of a Vitruvian module like the lower column diameter, Wilson Jones proposes that the “critical dimension” influenced the design of centralized buildings like tholoi and round temples.\footnote{Wilson Jones 1989b, 117 and 129. The critical dimension, based on foot measurements, cannot be determined for tholoi as Greek feet measurements are fairly unreliable.} He defines the critical dimension as an important element of the building’s plan, commonly the stylobate diameter, into which other significant dimensions can be divided.\footnote{This concept is based on the idea that the use of simple, consistent foot measurements was integral to temple design. Coulton 1975, 58-66; Wilson Jones 2000, 83.} Beyond the 3:5 relationship between cella exterior and stylobate diameter noted by Vitruvius,\footnote{With stylobate as their critical dimensions, it is not surprising that many round buildings show a 1:1 correlation with their roof diameters.} Roman round temples, with the exception of the Temple of Fortuna Huiusce Diei in its second phase,\footnote{As a drum, the Temple of Fortuna Huiusce Diei in its second phase has a 5:6 correspondence.} show a 1:2 correlation between their cella interiors and critical
Additionally, most are almost as tall as their critical dimensions are wide.⁴⁴⁶

In addition to significant variations in the proportional relationships among their parts, the tholoi and round temples differ among themselves with respect to their overall size, floor space and volume. Ranging from less than two meters to over twenty meters in diameter, the interior floor space of the Arsinoeion (#58), for example, is over three hundred times that of the Rotunda at Ilion,⁴⁴⁷ while its volume is over five hundred times greater. Though less dramatic, the Temple of Fortuna Huiusce Diei as a drum is one hundred times more spacious than the Shrine at Praeneste. The smaller cella of the Temple of Hercules Victor in foro Boario, at sixty-eight times the floor space of the Shrine at Praeneste, has thirty-nine times its volume.

While Vitruvius’ module and Wilson Jones’ “critical dimension” demonstrate that arithmetic relationships can exist between the major components of tholoi and round temples, Vitruvius raises the possibility that geometric relationships may also govern a building’s design.⁴⁴⁸ To assess what role geometry played, Wilson Jones employs both methods in his analysis of the Round Temple at Tibur. He notes that, with a critical dimension of forty-eight feet based on its stylobate diameter, most major dimensions from the height of the podium, columns, and entablature to the total height, the stair width, and the cella diameter, result in simple fractions.⁴⁴⁹ By contrast, Wilson Jones reveals that a geometric analysis based on the cella exterior⁴⁵⁰

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⁴⁴⁵ The wide range of ratios employed by Greek tholoi may be explained by the fact that several are drums.
⁴⁴⁶ While the round temples, with the exception of the Shrine at Praeneste, approach a 1:1 relationship, the Greek tholoi show a wider range.
⁴⁴⁷ Though not roofed, it is striking that the round court at Pella (#25) has one thousand times more floor space than the Rotunda at Ilion.
⁴⁴⁸ See Chap. II ‘Vitruvius on round temple design.’
⁴⁵⁰ This analysis was first carried out by H. Geertman (1989).
is not only awkward for its incorporation of the square root of two, but also fails to predict the exact dimensions of the cella.

Both the critical dimension and Vitruvius’ concept of the module show that establishing clear proportional relationships between the whole and its parts was a consideration for Greek and Roman architects. However, the dimensions of tholoi and round temples also reveal that, at least until the Imperial period, proportions were determined on a case-by-case basis as often as rules defined by Vitruvius or Wilson Jones are apparent in their design.

IV CONCLUSION

The round temple as it develops in Rome, Latium and on the island of Delos in the late Republic tempers a reliance on the traditional forms and styles of Greek architecture with the use of new Italic techniques and ornament. The round form is derived from Greek tholoi of the Classical and Hellenistic periods and may have been introduced to Italy by Greek architects. Following Roman conquests of the Hellenistic East in the second century BC, a number of Greek craftsmen immigrated to Rome in the train of victorious generals. Like Hermodorus of Salamis, who designed the Temples of Jupiter Stator and of Mars in Circo, and Scopas Minor, who may have crafted the cult images of the Temples of Hercules Victor ad portam Trigeminam (#44) and of Fortuna Huiusce Diei (#38), Greek craftsmen played a significant role in the ornamentation of late Republican Italy. They brought and employed Greek materials, techniques, designs, and decorative styles to appeal to their philhellenic patrons. These Greek elements were in part transmuted by available resources and local tastes. The use of stuccoed cement work to approximate Greek...
ashlar masonry or marble revetment, where marble was not available, is an example of the Roman readiness to adapt local products and techniques to Greek styles.

Though used as a base, Greek traditions of design and ornament did not determine the appearance of late Republican round temples. Like the methods used to simulate ashlar masonry, the decorative ornaments of the round temples recall Greek styles with Greek-inspired, yet native born motifs. New uses for the Greek cyma reversa and an experimental cyma recta characterize Roman podium moldings, while elements of the Corinthian order and its entablature bespeak Italic variations on Greek themes. The rounded tips of the acanthus leaves, in contrast to the spiky points of the Greek *acanthus spinosus*, point to the translation of Greek marble detailing into native Italic stones. Further, the introduction of modillons beneath an Ionic cornice signifies an indigenous development, which may have roots in stuccoed wall paintings.

Round temples also reflect Greek tholoi in their proportions and design. Even though they rarely employ the same proportional relationships, round temples follow the Greek principles of symmetry and proportion discussed by Vitruvius.⁴⁵¹ Like their building materials and techniques therefore, the decoration and design principles of late Republican round temples signal the careful amalgamation of Greek traditions and Italic innovations that defines much of late Republican architecture.

This inventive approach to the design and ornament of round temples extends to the use of the round form in other media. Unlike Greece, where the form is reserved for temple architecture, in Italy, round buildings run the gamut of functions from aviaries to mausolea. Moreover, the form is frequently picked up in the illusionistic architectural vistas of Second style wall paintings. Here, round temples are framed by walls, columns and pediments to create a feeling of depth. This three-

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⁴⁵¹ More than using Vitruvius as a guide, Roman architects simply responded to ideas prevalent in their society.
dimensional space and the close conjunction of round and rectilinear forms reflect built architecture, where round temples and rectangular buildings stand side by side. Within the existing infrastructure of Republican Italy, populated with rectangular temples, porticoes, and civic, industrial and domestic structures, round buildings, be they aviaries, mausolea or temples, stood out as unique and eye-catching features of a Roman cityscape. As Greek-inspired forms, they acted as tributes to the glory of the Hellenistic world and to the refined tastes and skills of their patrons and architects, while as round buildings in an urban setting, they provided visual relief from a succession of rectangular forms and spaces.

In the late Republican period, round temples came to symbolize the power of Rome fresh from victories in the Hellenistic East. The design and decorative traditions of the Greeks provided a base on which Roman architects might build their own traditions of form and ornament. Consequently, the round temples of this period show the beginnings of a new architecture. Whether designed and built by Greek architects, possibly like the Temple of Hercules Victor *ad portam Trigeminam*, or crafted by Italic builders with native materials and techniques, round temples emphasize the extent of Greek influence on Roman architecture, while exploring new methods and styles of building that will find wide use in the Imperial period.
PART II: THE EARLY ROMAN EMPIRE
CHAPTER V: THE JULIO-CLAUDIANS

I  INTRODUCTION

Augustus brought a new age of peace and prosperity to the Roman world. This “golden age” was celebrated in all aspects of Roman life, chief among which was religion. In the capital city, Augustus restored the temples of ancestral cults, while outside of Rome, the Imperial cult was established to proclaim his message of Roman rule.1

Of the eighty-two temples he claims to have rebuilt at Rome,2 many were restored in marble.3 These temples, together with those Augustus founded, became symbols for his new age. While his first foundations were experimental in their designs and the sources from which they drew,4 as his reign progressed, the architecture of Rome and her provinces became more conservative and the style, known as Augustan Classicism, was formalized.5 Combining the high podium and frontal emphasis characteristic of Italic temples with lavish ornamentation and materials drawn from Greece,6 Augustan temples created an impression of magnitude and opulence that surpassed most if not all Republican temples.7

1 With its repertory of images developed for Hellenistic ruler cults, the Greek world provided a model for the Roman West to follow in honoring the Imperial cult. Zanker 1988, 297 and 304, and see below.
2 R. Gest. div. Aug. 19-20; cf. Ov. Fast. 2.61 and Liv. 4.20.7. This program was begun by Julius Caesar. Coarelli 1988, 71.
3 Augustus is said to have “found Rome a city of brick and transformed it into a city of marble” (Suet. Aug. 28).
4 Among these, the Temples of Divus Iulius, ca. 42-29 BC, included a variety of design elements, which fall short of canonical Augustan forms. Gros 1976a, 207-29.
5 Favro 1984, 206-8; Zanker 1988, 105 and 311.
6 The Temple of Roma and Augustus (#4) on the Athenian acropolis provides a good example of Greek influence on Augustan architecture.
7 Until the end of the Augustan period, temples readily increased in size, while their proportions became both broader and, through the use of the Corinthian order (see below), visually higher. Favro 1984, 221-4.
The principles of this style, crystallized in the Forum of Augustus,\textsuperscript{8} were upheld by his immediate successors. With the reign of Nero however, and the building opportunities opened up by Rome’s devastating fire of 64 AD, new trends began to emerge. While rebuilding the city, Nero took advantage of newly available land to construct his most lavish palace, the Domus Aurea. In this palace, Nero departed from the rules that bound his predecessors to exploit the untapped potential of interior space, light and shade. His architects experimented with forms like domes,\textsuperscript{9} used to great effect in the Domus’ octagonal room, which mark a significant step in the development of Roman architecture.\textsuperscript{10}

\section{Discussion}

\textbf{Augustus: (27 BC-14 AD)}

During Augustus’ reign, round temples were constructed at Rome and Athens.

\textbf{The Pantheon, Rome (#50)}

The Pantheon (#50), virtually intact thanks to its conversion into a church in 609 AD,\textsuperscript{11} is one of the most remarkable architectural achievements of ancient Rome.\textsuperscript{12} Although the present Pantheon is Hadrianic, its inscription,\textsuperscript{13} ancient

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{8} For the forum, see Kockel 1995, 289-95. After completing projects begun by Caesar, including the building program finished by Agrippa (see below), Augustus embarked on a series of new constructions, of which his forum and its Temple of Mars Ultor were among the most important. Coarelli 1988, passim.
\item \textsuperscript{9} Suet. \textit{Nero} 16.1.
\item \textsuperscript{10} The dome of Nero’s octagonal room prevised that of Hadrian’s Pantheon (#50), see Chap. VI ‘Roofing techniques.’
\item \textsuperscript{11} At the request of pope Boniface IV, the Byzantine emperor Phocas transformed the Pantheon into S. Maria ad Martyres (\textit{LPD} 1.317 and \textit{VZ} 2.251).
\item \textsuperscript{12} Among its admirers, the 4th c. emperor Constantius (Amm. 16.10.14) remarked that the Pantheon looked “like a rounded city-district, vaulted over in lofty beauty.”
\end{itemize}
\end{footnotesize}
sources, and walls excavated beneath its porch, intermediate block and drum, date its foundation to the reign of Augustus. M. Vipsanius Agrippa\textsuperscript{14} is credited with erecting the Pantheon as part of his large-scale building program in the Campus Martius.\textsuperscript{15} This program, which included the completion of the Saepta Iulia to the east\textsuperscript{16} and the construction of the Basilica Neptuni and the Baths of Agrippa to the south,\textsuperscript{17} provided a frame for his Pantheon and emphasized the important position it occupied, both real and symbolic, in Augustan Rome.

In the late 1890s, L. Beltrami carried out a series of excavations beneath the Pantheon. He was able both to establish the Hadrianic date of the standing structure through brick-stamps\textsuperscript{18} and to uncover some information about previous building phases. Travertine and tufa blocks found under the porch and intermediate block and two levels of concrete paving discovered below the drum’s floor, bounded by a round wall, serve as the principal evidence for any reconstruction of Agrippa’s Pantheon.\textsuperscript{19} Without the means to date the pavement precisely, most scholars have assumed that the lower level pertained to Agrippa’s building and the upper, faced with marble slabs, to a rebuilding under Domitian. E. La Rocca, however, links the former with work undertaken in the area prior to Augustus and the latter with Agrippa’s Pantheon. Based on his alternative dating, he offers a new reading of the stone blocks, which formed the foundation of Agrippa’s building, and of the round wall, generally

\textsuperscript{13} The inscription (\textit{CIL} VI 896.1 = \textit{ILS} 129) implies that Agrippa founded the Pantheon during his third consulate in 27 BC, though it is generally accepted on the basis of Cassius Dio (53.27.1-2) that the building was completed in 25 BC. Coarelli 1983b, 43-4; Ziolkowski 1999, 54.
\textsuperscript{14} \textit{RE} IXA Vipsanius 2, 1248-50.
\textsuperscript{15} Sen. \textit{benef.} 3.32.4. Platner and Ashby 1929, 382; Coarelli 1983b, 43-4, and 1995k, 301 and 327; Godfrey and Hemsoll 1986, 196-7; Richardson, jr. 1992, 283.
\textsuperscript{16} Remains of the Saepta Iulia, begun by Lepidus, include a Hadrianic niched wall running parallel to the Pantheon, see Gatti 1999, 228-9.
\textsuperscript{17} For the Basilica, see Viscogliosi 1996e, 341 and below, and for the Baths, see Ghini 1999b, 40-2. Agrippa’s program also included the creation of an artificial lake and the construction of aqueducts, a retaining wall for the Tiber, and other utilitarian projects (Frontin. \textit{aq.} 98 and Cass. Dio 49.31).
\textsuperscript{18} Chap. VI #50.
\textsuperscript{19} de Fine Licht 1966, 172-7; Ziolkowski 1999, 54-5; La Rocca 1999b, 281-2.
considered a perimeter wall or a buttress for the ring foundations of Hadrian’s Pantheon.

According to Beltrami’s reconstruction, the rectangular cella of the Augustan building lay beneath the Hadrianic porch and its pronaos extended under the intermediate block. Its south-facing entrance corresponded to the door of Hadrian’s drum, while it shared its successor’s north-south axis and proportions, its width identical to the drum’s diameter and its depth comparable to that of the Hadrianic porch and intermediate block. The paved area in front of Agrippa’s Pantheon served as a forecourt shared by it and the Basilica Neptuni, which mirrored Agrippa’s building both in its symmetrical placement and in its plan and design.

La Rocca, after a theory proposed by W. Loerke, suggests instead that the first Pantheon prevised the form and orientation of Hadrian’s building. Drawing from recent excavations, he identifies an Augustan pronaos of comparable form incorporated into the Hadrianic porch. Like its successor, this porch faced north instead of south, the traditionally-held orientation of Agrippa’s Pantheon. La Rocca maintains that the porch, fronted with eight or ten columns, extended underneath the intermediate block to join a round court. Bounded by a thin wall, this court was partly, if not entirely, open to the sky. In support of his reconstruction, he suggests

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20 Platner and Ashby 1929, 384-5; MacDonald 1976, 60-2; Ziegler 1979b, 473; Boatwright 1987, 43-4; Richardson, jr. 1992, 285; Coarelli 1995k, 327; Ziolkowski 1999, 54.
21 Ziolkowski 1999, 54.
22 Likely to have been identical in plan to the Agrippan building, the standing Hadrianic Basilica recalls the contemporary Pantheon in its use of apses, niches, semi-domes, and brick-faced concrete, as well as in the design of its pavement, cornices, and Corinthian columns. Moreover, under Hadrian, they were visually connected by a series of vaulted chambers. Gatti 1940; de Fine Licht 1966, 157-62; Boatwright 1987, 49-50; Richardson, jr. 1992, 285; Ziolkowski 1999, 55-6.
24 Although higher and wider than the Hadrianic porch, Agrippa’s pronaos may have been accessed by two sets of stairs and fronted by a row of columns. La Rocca 1999b, 281; cf. Virgili 1999, 284.
25 La Rocca 1999b, 281.
26 8 columns and 2 antae: see Loerke 1982, 49; 10 columns: Virgili 1999, 284. Ziolkowski (1999, 55; cf. Gruben and Gruben 1997, 72 n. 217) claims that this area, wider than the Hadrianic pronaos, was too large to function as a porch.
that the marble pavement beneath Hadrian’s drum was too fine for a public forecourt, and cites the court at Pella (#25) as a comparandum for the Pantheon’s form.²⁷

Though the Hellenistic court to which he refers is both round and unroofed,²⁸ unlike La Rocca’s building, it lacked a monumental entrance comparable to the Pantheon’s porch.²⁹ Similarly problematic is M. Wilson Jones’ suggestion of the fourth century Temple of Artemis at Stymphalos (#61). While it consists of a drum and a rectangular pronaos,³⁰ the Temple is too small to have served as a model for the Pantheon. His second proposal of the Skias at Athens (#6), rebuilt with a columnar porch in the Augustan period, is somewhat better but, like the Temple at Stymphalos, its drum was roofed. For Beltrami’s reconstruction, the Temple of Concordia at Rome, whose transverse cella is bisected by a porch, serves as a close parallel, but does not reflect the court that would have linked the Pantheon and the Basilica Neptuni.³¹

By suggesting that the Pantheon faced north, La Rocca weakens its links to the Basilica Neptuni, though significantly, he opens up the possibility of a visual and ideological connection to the Mausoleum of Augustus. Cassius Dio suggests that Agrippa intended the Pantheon to function as a temple to Augustus. When he refused this honor, Agrippa commemorated the emperor and himself with statues set on the Pantheon’s porch and placed a statue of Augustus’ adoptive father, Julius Caesar, inside the building together with images of Mars and Venus.³² Further, Agrippa used

²⁷ La Rocca 1999b, 280-1.
²⁸ The court is abutted by two tholoi, while a third stands just outside.
²⁹ The court at Pella is similar in form to the Sanctuary of the Kabiroi at Thebes (ca. 1000 BC-400 AD), which locates three tholoi around an oval perimeter formed from a theater and boundary walls. Heyder and Mallwitz 1978, esp. 28-30, 38-40, 44-7, and 68; Seiler 1986, 25-8.
³⁰ At least in form, the Temple has some known parallels in Rome, including 3rd and 4th c. buildings like the Mausoleum of Maxentius (see Chap. VII #52) and probably Aurelian’s Temple of Sol (#53).
³² See #50.
Syracusan bronze capitals as well as caryatids\(^3\) and pedimental sculpture crafted by Diogenes of Athens to decorate his Pantheon.\(^4\) La Rocca proposes that, as in the Forum of Augustus, Agrippa may have incorporated the caryatids into an attic level, here to mask the springing of an annular vault that hemmed the round court.\(^5\)

In addition to outlining the Agrippan focus of the building, Cassius Dio speculates about its function. He suggests that, according to Greek precedent, the word ‘Pantheon’ signified a ‘temple to all the gods.’\(^6\) In a Roman context however, he considers it more likely that ‘Pantheon’ referred to the building’s lofty dome, designed to imitate the heavens.\(^7\) However, most scholars would refute this explanation on the basis that Dio responded to the dome of Hadrian’s Pantheon.\(^8\)

Despite Cassius Dio’s remarks, it seems likely that ‘Pantheon’ was only a nickname attributed to the building prior to 59 AD, when the Acta of the Arval Brethren record a meeting that took place in Pantheo.\(^9\) Similarly, a tribunal of Hadrian was located inside the Pantheon,\(^10\) suggesting that it functioned as an Imperial court or audience chamber.\(^11\) Coupled with this secular function,\(^12\) the

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\(^3\) Agrippa’s use of caryatids was inspired by the Athenian Erechtheion, which also served as the model for the Temple of Roma and Augustus at Athens (#4 and below). See Lloyd-Morgan 1990, 143-51 and Baldassarri 1998, 62 n. 79, for caryatids in Greek and Roman architecture.

\(^4\) See #50. This could imply that Diogenes was Agrippa’s architect.

\(^5\) While La Rocca (1999b, 281) models this reconstruction after vaults used in the Terrace of the Hemicycles at Praeneste and the Teatro Marittimo at Hadrian’s villa, it is problematic in so far as there are no parallels for a partially vaulted round court, and more fundamentally, no foundations for columns or pillars to support an annular vault have been discovered.

\(^6\) Will 1951; de Fine Licht 1966, 192; Ziegler 1979b, 468-71; MacDonald 1982, 118-9. Although his interpretation is not generally accepted, it is significant to note that temples to the twelve gods, like the round Tychaion at Alexandria, were frequently linked to ruler cults. See Aristotle in Philo Aet. 3.10, Will 1951, passim, Gros 1996a, 178, and La Rocca 1999b, 283.

\(^7\) Cass. Dio 53.27.

\(^8\) Richardson, jr. 1992, 283.

\(^9\) CIL VI 2041 = ILS 229. Through this connection, Ziolkowski (1999, 56) suggests that the Pantheon was afforded some sort of sacred status. For an analysis of Arval rites and practices, see Scheid 1990.

\(^10\) Cass. Dio 69.7.1; Cod. Theod. 14.3.10. The Saepta also included a tribunal under Tiberius (Suet. Tib. 17; Cass. Dio 56.1). Gatti 1999, 288.

\(^11\) Secular precedents for Hadrian’s domed rotunda, namely free-standing round halls like the “Temple of Mercury” at Baiae, a 1st c. bath building, or rotundas incorporated into larger complexes like the octagonal hall of Nero’s Domus Aurea, might support the idea that non-religious activities took place inside the Pantheon. MacDonald 1976, 44-60 and 68-9; Godfrey and Hemsoll 1986, 202-5.
Pantheon may have played a religious role, implied by the statues of Divus Julius, Mars and Venus displayed in its interior as well as by Agrippa’s intention to build it as a temple to Augustus. Many scholars have proposed that, once thwarted, Agrippa founded a temple to the gens Iulia,\textsuperscript{43} rebuilt by Hadrian as a means of renewing his links to Augustus.\textsuperscript{44} However, A. Ziolkowski has pointed out that the Pantheon, built in Agrippa’s private horti,\textsuperscript{45} could not have been intended as a public temple,\textsuperscript{46} that Augustus as a living emperor would not have been honored with a temple either public or private,\textsuperscript{47} and that Mars, though the father of Romulus, was not a patron god of the Julian family.\textsuperscript{48}

Instead, Ziolkowski suggests that Agrippa’s Pantheon served as a temple to Mars, a god associated with land victories, while the nearby Basilica Neptuni acted as its counterpart, namely a temple to commemorate Agrippa’s sea victories.\textsuperscript{49} His arguments are compelling, especially as Caligula’s hatred of Agrippa\textsuperscript{50} might explain why his grandfather’s temple became known by a nickname, but they depend on the plan of the first Pantheon. While Beltrami’s reconstruction supports his theory, if La Rocca is correct, it is hardly likely that Agrippa paired a building of modest proportions and the same orientation with his Pantheon.

\begin{itemize}
\item \textsuperscript{42} The Basilica Neptuni, rather than the reported Pantheon, may have served as a library under Alexander Severus. \textit{POxy} 3.412.63-8; Boatwright 1987, 49; vs. Gros 1993, 54-7 (libraries inside the Temple of Apollo Palatinus).
\item \textsuperscript{43} In function, it would be comparable to Julius Caesar’s Temple of Venus Victrix, dedicated in 46 BC. Gros 1996a, 140.
\item \textsuperscript{44} Platner and Ashby 1929, 382; de Fine Licht 1966, 192-3, 198 and 201; MacDonald 1976, 76-92; Coarelli 1983b, 43, 1988, 74 and 1995k, 330; Richardson, jr. 1992, 283. As his statue was excluded from its cella, the Pantheon could not have been a temple to Augustus.
\item \textsuperscript{45} Agrippa’s horti only became public in 19 BC, when he ceded them to the Roman people on his death (\textit{CIL} VI 39087). For the extent of his horti, see Coarelli 1997, 546-55.
\item \textsuperscript{46} However, Ziolkowski (1999, 56) suggests that the Pantheon could have honored a private cult, which later became public.
\item \textsuperscript{47} This would have been offensive to most contemporary Romans. Godfrey and Hemsoll 1986, 197-8.
\item \textsuperscript{48} Ziolkowski 1999, 56.
\item \textsuperscript{49} Ziolkowski 1994, passim and 1999, 56.
\item \textsuperscript{50} Suet. \textit{Cal.} 23.1-2.
\end{itemize}
Although not perfectly aligned, La Rocca’s north-facing Pantheon could have been intended to complement the Mausoleum of Augustus. The Mausoleum, erected two years earlier, was built to serve as the resting place of Augustus and his descendants. The Pantheon may have marked the site where Romulus, with whom Augustus identified himself, ascended into the heavens. By including a statue of Divus Julius in its interior and by establishing a visual link between the Pantheon and the Mausoleum, Agrippa may have intimated that Augustus, like Romulus and Caesar, would be divinized on his death. This connection is strengthened by Hadrian’s incorporation of an eagle, a possible symbol of Augustus’ apotheosis, into the pediment of his Pantheon, and the recent discovery of a plan for the Hadrianic building on the grounds of the Mausoleum. While this evidence suggests that it served as a dynastic monument, much like the Mausoleum, based on the unresolved form and orientation of Agrippa’s building, it is best to conclude that he implied, but did not formalize, this function in his Pantheon.

**The Temple of Mars Ultor, Rome (#46)**

During the Battle at Philippi in 42 BC, where Octavian defeated the murderers of Julius Caesar, the young victor vowed a temple to Mars Ultor, the avenging god whose aid he felt had secured his victory. While the ultimate outcome of this vow

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51 Coarelli 1983b, 44.
52 Gros 1996a, 176; von Hesberg 1999, 276; Wilson Jones 2000, 50 and cf. 206-7 (close correspondences to Hadrian’s Pantheon). La Rocca (1999b, 281-2) lists Augustan monuments between these two buildings (see ‘Temple foundation and layout’ below), which may strengthen their ideological links.
53 It would also recall the Philippeion at Olympia (#22). Moreover, Wilson Jones (2000, 179; cf. Ziegler 1949, 741-2 and Will 1951, passim) notes that Agrippa’s intention to group Augustus’ statue with those of Venus and Julius Caesar is comparable to Hellenistic Pantheia, where the ruler’s image was displayed amidst gods.
54 Suet. Aug. 29. For an overview of the Augustan buildings in which Mars appears, see Siebler 1988, 153 and 158-60.
was an octastyle temple in the Forum of Augustus, dedicated in 2 BC, literary and numismatic evidence has raised the possibility of a second temple to Mars Ultor (#46). Cassius Dio records Augustus’ construction of a Temple of Mars on the Capitoline “built on the model of Jupiter Feretrius.” Like the temple to Jupiter, which housed war spoils from the times of Romulus and Marcellus, the Temple of Mars may have stored Roman military ensigns and eagles recovered from Parthia. Their return in 20 BC, though achieved by diplomatic means, was hailed as a victory for the Roman people, while Augustus was voted honors by the Senate and celebrated with commemorative coin issues throughout the empire.

In the absence of physical remains, these coins, in addition to Cassius Dio, form the principal evidence in favor of a Temple of Mars Ultor on the Capitoline. The first Roman issues minted by M. Durmius, like the cuirass of the Augustus from Prima Porta, show a kneeling Parthian soldier returning the ensigns to Rome. This scene is replaced on cistophoroi from Ephesus and Pergamon with a triumphal arch, a

56 Cass. Dio 54.8.3. Like the Shrine of Vesta on the Palatine (#56 and below), this Temple of Mars Ultor is not mentioned in Augustus’ Res Gestae. However, its omission may be explained as a result of the Senate having undertaken its construction.
57 Cassius Dio’s (54.8.3) “model” cannot refer to the form of the temple, if its identification with the round temple illustrated on Augustan coins (see below) is correct.
59 Fest. p. 202-4 L, Val. Max. 3.2.3-5, Flor. anth. 1.1.11 and 1.20.4-6, Sol. 1.20, Vir. ill. 2.4 and 25.1-2, Serv. Aen. 6.859, Liv. 4.20.3-11 and perioch. 20, Plut. Rom. 16 and Marcell. 8.3-6, Hor. carm. 4.15.6, and Inscriit XIII.3 70 no. 86.
60 The ensigns and eagles, as well as Roman soldiers, were lost to the Parthians during the campaigns of Crassus in 53 BC, Saxa in 40, and Marc Antony in 36 and 33. See R.Gest.div.Aug. 29.1, Suet. Aug. 21, and Vell. 2.91.1 (ensigns lost), R.Gest.div.Aug. 29.2, Strab. 748, Vell. 2.91.1, Suet. Aug. 21.3, Liv. perioch. 141, Cass. Dio 54.8.1-2, Iust. 42.5.10-1, and Hor. epist. 1.12.28 (ensigns recovered), Hor. epod. 4.15.6-8, epist. 1.12.27-8 and 18.56-7, Prop. 4.6.79-84, Ov. fast. 5.580-94 and 6.465-8, trist. 2.227-8 (celebrations on their return), and van der Vin 1981, 117-8.
61 After Rome made several unsuccessful attempts, Augustus was able to recover the ensigns by convincing the Parthian king Phraates IV that a peaceful settlement was the best option for both powers. van der Vin 1981, 119.
62 These honors included supplicationes, Augustalia to mark the day of his return, the construction of an altar to Fortuna Redux, and the re-dedication of an arch (see below). Rich 1998, 125-7. For coins connected with these events, see Baldassarri 1998, 59-60 n. 70 and below.
63 The Roman soldier depicted on the cuirass may represent Mars Ultor. Zanker 1988, 192.
hexastyle temple, and a round temple.\textsuperscript{64} While the arch has been identified with an arch in the Forum, altered as part of Augustus’ honors,\textsuperscript{65} and the hexastyle temple may represent that of Roma and Augustus in Pergamon,\textsuperscript{66} the round temple depicts the Temple of Mars Ultor on the Capitoline.\textsuperscript{67} Celebrating Augustus’ achievement, these coin issues helped to spread his personal and political propaganda. By emphasizing the ensigns, they enabled Augustus to court popular approval for the methods he used in their recovery,\textsuperscript{68} while by associating him with Mars Ultor, the avenger of Caesar and Rome, they underlined his ability to withstand the threat of internal and foreign enemies.\textsuperscript{69}

Dated to 19-18 BC, the third type of cistophoroi shows a round temple set on a five-step podium with Corinthian columns, an architrave, antefixes, and a dome topped by a finial. Visible between its central columns is a military vexillum, while walls may fill out its remaining intercolumnations. A similar round temple appears on aurei and denarii minted at Colonia Patricia and Caesaraugusta in Spain. These issues, which also show the triumphal arch, depict a monopteros ornamented with a wide range of cult objects. On some coins, these objects, including chariots, eagles, ensigns, and a small quadriga,\textsuperscript{70} are replaced by the figure of Mars Ultor. Mars, shown youthful, naked except for his helmet, and holding an eagle and ensign, is

\textsuperscript{64} All three types share a common obverse in the head of Augustus. Sutherland et al. 1970, 36-7.
\textsuperscript{66} This temple was built prior to 20 BC by the Commune Asiae. van der Vin 1981, 125-7.
\textsuperscript{67} Morawiecki (1976, 65 n. 53; vs. Rich 1998, 85) claims that the round temple represents the Temple of the Imperial cult at Ephesus. Her hypothesis is highly unlikely as the temple at Ephesus was rectangular, and moreover, the monopteros, which she identifies with it, probably formed the second story of a niched monument, see Bammer 1968-1970, 23 fol. figs. 14 and 39, and Torelli 1997, 152.
\textsuperscript{68} van der Vin 1981, 132.
\textsuperscript{69} Bonnefond 1987, 274. Here Mars Ultor is \textit{bis ultro}, “twice avenged” (Ov. \textit{fast.} 5.579-96), first for Caesar’s murder and secondly, for the death and capture of Roman soldiers in Parthia.
\textsuperscript{70} See #46. The Senate decreed that Augustus should re-enter Rome in a chariot. Although he refused this honor, and moreover, may have entered the city by night, it is likely that an empty chariot was set up in the Forum of Augustus (\textit{R.Gest.div.Aug.} 35.1). Rich 1998, 115-25.
depicted both inside the round temple and on his own. Similarly, cult objects may appear as isolated images, intended to symbolize the temple or more generally, Augustus’ success in Parthia.

As the best evidence for the Capitoline Temple’s appearance, the coins may allow for its reconstruction. They depict it as round with a stepped podium, Corinthian columns, an ornate entablature, and a domed roof. According to Cassius Dio, the Temple sheltered ensigns and eagles, possibly *in penetrare*. Some scholars have suggested that they were accompanied by a cult image of Mars Ultor. Contrasting the youthful Mars shown on Spanish issues with the older, bearded and armor-clad Mars of the Ara Pacis Augustae, considered the cult statue of the temple in Augustus’ forum, J. van der Vin and M. Siebler have identified the former as the cult image of the Capitoline Temple. Although appealing, T. Kraus presents convincing arguments for seeing the youthful Mars as a symbolic device, like the cult objects and the legend MAR(T) VLT, used on coins to clarify the function and attribution of the round temple.

While both Cassius Dio and the coins support the existence of a second Temple of Mars Ultor, other sources raise difficulties sufficient for many scholars to conclude that the round temple, though planned, was never built. Horace, for example, contradicts Cassius Dio’s assertion that the Temple was erected to hold the ensigns and eagles recovered from Parthia. Instead, he states that the ensigns were

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71 Giard 1976, nos. 1090a and 1095, and 169 fol. nos. 1115-20 pls. 44-5.
72 BMCEmp I 67 nos. 384-9 pl. 8.10; Giard 1976, 46-8 and 175 fol. nos. 1174-84 pls. 46-7.
73 It is difficult to tell from the coins whether the Temple had cella walls.
74 This term, which Augustus (*R.Gest.div.Aug.* 29) uses in the context of his forum temple, may connote a restricted area within its cella or simply the Temple’s interior. Quicherat 1967, 860; Gros 1976a, 128-9.
76 van der Vin 1981, 127; Siebler 1988, 155.
77 Kraus 1964, passim. The Temple of Jupiter Feretrius, to which the Capitoline Temple is compared, lacked a cult image.
entrusted to Jupiter Feretrius, until the completion of the Forum of Augustus. To account for this discrepancy, scholars have labeled Horace’s remark as a kind of “poetic license,” whereby he intended Jupiter Feretrius to serve as a topographical indicator or as a personification of the Roman state.

More troubling however are the problems that arise in connection with the *ludi Martiales* or games celebrated in honor of Mars. These games are noted in the sources as having been held on 12 May and 1 August. T. Mommsen proposed that both dates and sets of games were connected with the dedication days of the two temples of Mars Ulto, the former with the round Temple and the latter with the temple in the Forum of Augustus. Although widely accepted, F. Cassola criticizes Mommsen’s premise, noting that none of the preserved *fasti* mention *ludi* occurring at the Capitoline Temple on either date. Moreover, several ancient sources record *ludi Martiales* celebrated to mark the dedication of the Temple of Mars Ulto in the Forum of Augustus on 1 August 2 BC. These *ludi* were repeated every year until 41 AD, when Claudius moved the festivities to celebrate his birthday on that day.

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78 It is possible that the statue or temple of Mars Ulto shown on the Sorrento base represents the god’s Capitoline Temple. For difficulties connected with the base’s interpretation, see §56 below.
80 Bonnefond (1987, 272; vs. Rich 1998, 91) considers the transfer of ensigns from one god to another unusual, if not sacrilegious. However, it should be noted that, during its construction, the cult image of the Temple of Magna Mater on the Palatine (see Pensabene 1996a, 206) was placed inside the Temple of Victory.
81 Cassola (1981, 107-8; cf. *Hor. carm.* 4.15.6) suggests that “ensigns returned to Jupiter” signified “ensigns returned to Rome.”
82 *InscrIt* XIII² 456 (*Fasti Maffeiani*, 12 May). Ov. *fast.* 5.545-98; Suet. *Claud.* 4.1-3 (12 May). Vell. 2.100.2; Cass. Dio 55.10.6-8 and 60.5.3; *R.Gest.div.Aug.* 22.2 and 23 (1 August).
83 Mommsen relies on Velleius Paterculus (2.100.2) and Cassius Dio (60.5.3) in constructing this argument. Cassola 1981, 105.
84 While Alföldy agrees with Mommsen in principle, he reverses the Temples’ dedication days, see Rich 1998, 84.
85 Though the *fasti* do record 12 May (*InscrIt* XIII² 456; Ov. *fast.* 5.545-98), their reports are ambiguous and inconsistent. Cassola 1981, 102 and 112-4.
86 See above.
87 Cass. Dio 60.5.3 (Claudius’ birthday on 1 August).
A reference to 12 May can be found in Ovid’s *fasti* and indirectly in a letter from Augustus to Livia recorded by Suetonius.\(^88\) Ovid portrays Mars as descending from the sky on 12 May to visit his temple in the Forum of Augustus. Cassola argues that this event refers solely to the forum temple and could not suggest a date for *ludi* held in commemoration of the Capitoline Temple’s *dies natalis.*\(^89\) Moreover, evidence pertaining to the date when the *ludi* were first celebrated shows that no games in honor of Mars took place before 2 BC.\(^90\) The most compelling solution therefore, that of Cassola, would connect both dates and games with the forum temple as a celebration of its dedication on 1 August and of its *constitutio* or consecration on 12 May.\(^91\)

Like Cassola, J. Rich concludes from this evidence that no Temple of Mars Ultor was ever erected on the Capitoline.\(^92\) He blames Cassius Dio for perpetuating the idea that the Temple, whose decree was commemorated on coins, was eventually built,\(^93\) and notes the Temple of Clementia Caesaris as a comparable example of a building whose construction was agreed, but not completed.\(^94\) Additionally, the interval between Augustus’ recovery of the ensigns and the coin issues is too short to propose that the coins could have celebrated the Temple’s completion.\(^95\) It is best therefore to follow Horace in his placement of the ensigns and to consider the Temple

\(^90\) Augustus (*R.Gest.div.Aug.* 22.2) remarks that the *ludi* were first celebrated during his thirteenth consulship (2 BC). Cassola 1981, 114-5; Rich 1998, 84.
\(^92\) Rich 1998, 82-3.
\(^95\) van der Vin 1981, 126. This raises the possibility that a temporary temple, made of perishable materials, was constructed to store the ensigns, only to be razed when the Forum temple was completed. The Temple of Diana, built in 36 BC to hold trophies won in the Battle at Nauloo and dismantled in 20, would be comparable, see Cic. *har. resp.* 32, *BMCEmp* I, 102 nos. 625 fol. pl. 15.9, 103 no. 634 pl. 15.15, and 104 no. 643, *RIC* I, 60 no. 4 pl. 3.50 and 63 no. 38 pl. 3.53 (coin evidence for the Temple of Diana), Coarelli 1968a, 191 fol., and Baldassarri 1998, 58; vs. Rich 1998, 82.
of Mars Ultor on the Capitoline an honor voted Augustus by the Senate, but refused in anticipation of the much grander temple to be erected in his forum.

**The Temple of Roma and Augustus, Athens (#4)**

Unlike much of Greece, Athens was granted the special status of a *civitas libera et foederata* in the late Republic.\(^96\) The city remained free until 27 BC, when Octavian incorporated it into the Roman province of Achaia in the wake of the Battle at Actium. During his first visit to the city, he pardoned its inhabitants for siding with Marc Antony.\(^97\) As a sign of their gratitude, the Athenian people may have erected a monopteros on the Acropolis (#4) in connection with this trip or to mark his third visit in 20 BC, when Augustus passed through Athens after recovering the ensigns and eagles from Parthia.\(^98\)

The monopteros, which honored both Roma and Augustus, was the first Temple dedicated to their combined cult at Athens. The cult of Roma, an outgrowth of Hellenistic city-state cults, was established at Smyrna in 195 BC,\(^99\) but had spread throughout the Greek world by the Augustan period.\(^100\) At Athens, Augustus Soter\(^101\)

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\(^96\) Baldassarri 1998, 3; cf. Chap. IV ‘Introduction.’

\(^97\) Athens was sacked by Sulla, and its free status revoked, in an uprising against Rome in 88 BC. Funded by wealthy Romans, the city was gradually rebuilt and its status restored in the 2nd half of the 1st c., before its involvement at Actium. For an overview of Roman rule in the Julio-Claudian period, see Baldassarri 1998, 3-40.

\(^98\) The Temple’s dedicatory inscription (*IG II²* 3173 = *CIG* 478 and *IG III* 1276) narrows the date of its construction to 27-19 BC. Baldassarri (1998, 51-4) supports 19 BC on the basis of formal similarities between the monopteros and the Temple of Mars Ultor on the Capitoline (#46 and above), which, he believes, served as a model for the Temple at Athens.

\(^99\) Tac. *ann.* 4.56; cf. Mellor 1981, 954-72. From the middle of the 2nd c. BC, a festival known as the *Romaia* was held at Athens. *IG II²* 1054 and 1938; cf. Baldassarri 1998, 33 n. 43.

\(^100\) In 30-29 BC, Octavian sanctioned the construction of temples to Roma’s cult at Pergamon, Ephesus, Nicomedia, and Nicea, while inscriptions attest to temples of Roma and Augustus on Samos (see Herrmann 1961, 71 no. 1), Lesbos (*IG XII²* 58), and Thasos (*IG XII.8* 380) built during his lifetime. Mellor 1981, 977 and 982; Zanker 1988, 302. This trend can be contrasted with Augustus’ refusal to be honored with a temple in Rome, see Cass. Dio 53.27 and #50 above.

\(^101\) For this epithet, see Baldassarri 1998, 28 and 54-5.
was celebrated together with Roma in the Agora and the Theater of Dionysos\textsuperscript{102} as well as on the Acropolis, the most sacred area in the city. Through its location, the Temple best conveyed Augustus’ message of Roman rule, while, in its architecture, it acted in sympathy with its Greek neighbors.

The Temple stood in front of the Parthenon and near the Erechtheion\textsuperscript{103}, with which it had ideological and structural ties. As the Parthenon and Erechtheion commemorated Athena, the patron goddess of Athens, the Roman monopteros glorified both the personification of Rome and Augustus as the city’s protector and principal representative\textsuperscript{104}. Like the Erechtheion, the Temple employed the Ionic order, which, rare for round temples, demonstrates one of many architectural links\textsuperscript{105}. Based on their similarities, P. Baldassarri has even proposed that the same architect, who restored the Erechtheion in the Augustan period, may have designed and built the Temple\textsuperscript{106}.

Resting on a three-step krepis\textsuperscript{107}, the monopteros rose with a screen wall, nine columns and an inscribed entablature to a conical roof\textsuperscript{108}. The columns, notable for their Ionic capitals and fluted shafts with lotus and palmette collars, were evenly spaced, apart from the intercolumnation beneath the inscription that marked the Temple’s entrance. With this wide opening, the Temple could easily have displayed

\textsuperscript{102} Two annexes of the Stoa of Zeus Eleutherios were connected with their cult, whose priest had a seat in the Theater (\textsc{IG II²} 5047 and 5114). Mellor 1981, 982; Baldassarri 1998, 53.
\textsuperscript{103} 3\textsuperscript{rd} c. coins (see #4), which provide ‘bird’s eye’ views of the Acropolis, underline the proximity of the monopteros to these temples. Binder 1969, 45-7 and 125.
\textsuperscript{104} See ‘Analysis’ below.
\textsuperscript{105} Baldassarri (1998, 62-3) suggests that Diogenes of Athens, who designed the caryatids and capitals of Agrippa’s Pantheon (\textit{Plin. nat.} 34.13 and 28; cf. #50 above), may have been in charge of these projects.
\textsuperscript{106} The Temple’s foundations have been identified with either a poros platform or a circular indentation cut into native rock. Baldassarri 1998, 48-9.
\textsuperscript{107} The roof is reconstructed as conical on the basis of Imperial coins (see #4 and above) and by analogy with the Rotunda at Corinth (see #9 below). Baldassarri 1998, 46-7.
cult statues of Augustus and Roma. These, in addition to an altar that may have preceded the Temple, would have emphasized the presence of their cult on the Acropolis.

**The Shrine of Vesta, Rome (#56)**

On his election to Pontifex Maximus on 6 March 12 BC, Augustus donated the *domus publica* to the Vestals and established a sanctuary of Vesta in his house on the Palatine. This not only allowed him to fulfill the requirements of the office, namely to live in the public domain and oversee the cult of Vesta, but also to enlarge the Vestals’ living quarters in the Forum. Ovid notes in his entry for 28 April how Augustus allotted space for Vesta in his house (*fast.* 4.494-50): *Phoebus habet partem, Vestae pars altera cessit; / Quod superest illis, tertius ipse tenet.* The parts occupied by the cults of Apollo and Vesta, in this context, appear comparable in importance and size. As a temple filled out the area of Apollo, some scholars have suggested that the area of Vesta received a similar treatment (#56).

In addition to Ovid’s *fasti*, two ancient calendars record a dedication made to Vesta in Augustus’ house. On 28 April, the *fasti Caeretani* note that a *sig(num)* *Vest(ae)* was set up *in domo P(alatina)*, while the *fasti Praenestini* remark on the

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109 Binder 1969, 85. A statue of Augustus (or of Nero, see Coarelli 1978, 233) may have been displayed on the round base in the Sanctuary of Athena Nikephoros at Pergamon. For bibliography pertaining to this base, erected in honor of Attalos I’s victory over the Gauls, see Baldassarri 1998, 61 n. 75.
111 Augustus first used the Acropolis to demonstrate Roman supremacy when he turned the statue of Athena Parthenos westward to face Rome. Baldassarri 1998, 20.
112 The *domus publica*, previously known as the *domus rex sacrorum*, was the official residence of the Pontifex Maximus. Papi 1995, 169-70; Scott 1995, 165-6.
113 This was achieved by making part of his house public with the addition of Vesta’s and Apollo’s sanctuaries (Cass. Dio 54.22.2; Ov. *fast.* 4.494-50). Cappelli 1999, 128.
114 The *domus publica* was incorporated into the Atrium Vestae. Scott 1995, 165-6; Cappelli 1999, 128.
115 This temple, vowed in 36 and dedicated in 28 BC, was constructed in an area of Augustus’ house struck by lightning, see Gros 1993b, 54-7.
erection of a [...] ET [...] / VESTAE. For these lacunae, T. Mommsen reconstructed [AEDICVL]A ET [ARA]. Although once widely accepted, A. Degrassi has shown that [SIGNVM]ET [ARA] fits more comfortably into the space provided. This emendation accords well with the fasti Caeretani, while, as Degrassi has pointed out, it is more feasible that a statue, than a shrine, was erected together with an altar in the interval between Augustus’ election and their dedication day.

Though M. Guarducci agrees with Degrassi’s substitution of SIGNVM for [AEDICVL]A, she proposes [AEDIS] for the second lacuna, noting occasions when a temple’s dedication preceded its completion. Further, she responds to the absence of an aedis in the fasti Caeretani by remarking that, while the statue was set up in 12 BC, the Shrine was more likely to have been visible when the early Imperial fasti Praenestini were composed than when the fasti Caeretani, whose composition predated 12 BC, were amended.

In addition to the fasti, which may suggest that this sanctuary had a temple, two other written sources dealing with the contents of a shrine of Vesta may refer to this site. Augustus’ Res Gestae, intended as a compilation of his achievements, is silent about the Shrine’s construction, but does mention dona ex manubiis or war booty he set up at a shrine to Vesta. According to Guarducci, this passage fits with the Shrine on the Palatine and with the coins and reliefs, discussed below, which may

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116 Fasti Caeretani: InscrIt XIII² 66 = CIL I² 213; Fasti Praenestini: InscrIt XIII² 132-3 = CIL I² 236. For both, see #56.
117 Although this inscription is badly preserved, it appears that 5 letters fit better than 7 and that M can be reconstructed as reliably as A.
118 Ov. fast. 6.295-6 (statue of Vesta). Degrassi 1955, 147.
120 Guarducci 1964, 159 and 167.
represent Augustus’ gifts.\textsuperscript{122} Further, she notes an epitaph from Privernum, which lists among the titles of a benefactor, \textit{praepositus palladii Palatini},\textsuperscript{123} as proof that Augustus stored a copy of the Forum temple’s Palladium in this Shrine on the Palatine.\textsuperscript{124} In response, Degrassi identifies the inscription as referring to Elagabalus’ transfer of the Palladium to his Palatine temple of Sol,\textsuperscript{125} and notes the unlikelihood of Augustus or the Senate having built the Shrine without recording its construction.

The coins to which Guarducci refers are dupondii minted under Tiberius, ca. 22-23 AD, and aurei of Vespasian, Titus and Domitian, 71-74 AD.\textsuperscript{126} Both series depict a round shrine with Ionic columns, grillwork, and a conical roof. Set between pillars that support a bull and a ram, the shrine appears on the Tiberian coins with a statue of Vesta and on the Flavian, with the Palladium and two Vestals. A base from Sorrento and a relief discovered in Palermo, both of Julio-Claudian date, illustrate a shrine with similar attributes placed before an Ionic portico. Scholars have sought to identify both the shrine and the portico by examining the base, which includes them in one of four scenes set at religious sites in Rome.

Though not complete, the base preserves a sacrificial rite played out before various buildings. The scene on side A sets a round altar, Vesta, five Vestals, and two goddesses\textsuperscript{127} against a backdrop of an Ionic portico and a round shrine, while side B

\textsuperscript{122} Guarducci 1964, 161, and 1971, 104; cf. Rizzo 1932, 33-5.
\textsuperscript{123} \textit{CIL X} 6441.
\textsuperscript{124} As support, Guarducci (1964, 161 and 169) cites the discovery of an Archaic head of Athena on the Palatine and depictions of the Palladium inside a shrine of Vesta (see #56 and below), only to retract her arguments (1971, 109-10) in agreement with Kolbe (1966-1967, 103-4), who considers it inappropriate that the Palladium, as a symbol of Rome’s power, should have been duplicated.
\textsuperscript{125} Degrassi (1955, 149-51; see Fraschetti 1990, 345 and Cappelli 1999, 128) bases his view on sources which note that the Palladium remained in the Forum until the time of Elagabalus (\textit{Hist.Aug.Helioget.} 3.4-7 and 6.9).
\textsuperscript{126} See #56.
\textsuperscript{127} They have been identified by Rizzo (1932, 46-7; cf. Guarducci 1971, 104-8) as the Roman counterparts of Demeter and Kore, Ceres and Libera.
shows the Temple of Apollo Palatinus. The House of Augustus128 and a statue or
temple of Mars Ultor appears on side C and a temple of Magna Mater is depicted on
side D.129 The Palermo relief is similar in content,130 while it also incorporates the
Palladium and Augustus in the role of Pontifex Maximus.131 Like the coins, both
reliefs include pillars supporting a bull and a ram,132 whose placement may mirror that
of the armenta Myronis, four bull statues by Myron displayed before the Temple of
Apollo Palatinus.133

G. E. Rizzo, the first to study the Sorrento base in any depth, noted that, as
scenes B, C and D take place on the Palatine, side A must represent the Shrine in the
Palatine sanctuary of Vesta. He concluded that the base commemorated the
dedication of the Shrine, its statue and altar.134 Guarducci concurred, stressing
marked differences between these sources and the coins, reliefs and Renaissance
drawings linked with the Forum temple.135 Their disparities, she suggested, prove the
existence of two temples to Vesta in Rome.136 Although satisfied with most of
Rizzo’s analysis, Degrassi followed S. Stucchi in identifying the round shrine on side
A with the Temple of Vesta in the Forum.137 Unlike both Rizzo and Stucchi

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128 Augustus’ house is identified by a corona civica or crown of oak leaves granted him by the Senate
on 13 January 27 BC as thanks for his role in the Civil Wars. Rizzo 1932, 80.
129 For a fuller description, see Rizzo 1932, 51-99.
130 A fragmentary relief in the Villa Albani shows a seated Vesta and four Vestals sacrificing over a
round altar, though omits the round shrine and Ionic portico in favor of a Corinthian peripteros. Cain
1989b, 421-5.
131 It is possible that Augustus was represented similarly on a lost fragment of the Sorrento Base.
Cappelli 1999, 128.
132 Rizzo 1932, 32. Guarducci (1971, 102-8; see Cecamore 1994-1995, 21) connects the bull and ram
statues to zodiac signs, under which she believes most of the work on the Palatine Shrine was
completed.
133 Prop. 2.31.7 fol. If the base shows the Palatine Shrine of Vesta (see below), it is reasonable to
assume that Augustus employed similar statue displays to unite the neighboring temples.
134 Rizzo 1932, 40 and 50.
135 See Chap. VII #57.
136 Guarducci 1964, 163-5.
137 Stucchi (1959, 90-1) links the Ionic portico with the Temple of Divus Iulius, whose inauguration
may have been celebrated with the sacrifice on side A.
however, he suggested that the base, an illustration of Augustus’ religious devotion, included monuments from both the Forum and the Palatine.

Even if Rizzo and Guarducci are correct in locating the round shrine on the Palatine, the coins and reliefs they link with it might as easily commemorate the building’s vow as its completion. At most therefore, these sources reveal the intended appearance of the Shrine. In support of its construction, C. Cecamore points to a circular structure and a portico discovered near the Temple of Apollo Palatinus. These remains, which may incorporate Vespasianic brick stamps and a fistula, she suggests, pertain to a Flavian rebuilding of the Shrine and its portico commemorated on the aurei. However, like the bricks, which may have been used during or after the Flavian period, the number and variety of finds on the Palatine work against identifying any individual building with certainty. Similarly, as both the written and the iconographic sources are ambiguous about the existence of a temple in Vesta’s sanctuary, it is best to conclude that the Shrine was never built.

**Tiberius: (14-37 AD)**

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138 Rizzo 1932 and above; Stucchi 1959, 11, 14, 25, and 90-1.
140 These are located below the triclinium and nymphaea of the domus Flavia. Cecamore 1994-1995, 9-11 and 15-7.
143 See Degrassi (1966-1967) for the topography of the Palatine, especially in relation to Augustus’ house.
144 The round building is usually identified as a cenatio. Cecamore 1994-1995, 18. Other round structures used for this purpose are the Skias at Athens (#6), the tholoi in the Sanctuary of the Kabiroi at Thebes (see Heyder and Mallwitz 1978, 46), the court at Pella (#25), and Varro’s aviary (see Varro rust. 3.5.9-12 and Chap. IV #38).
As Tiberius focused his building activity on Rome,\(^\text{145}\) it is unlikely that he had any direct involvement with the construction of the Rotunda at Corinth (#9), a Roman possession from 146 BC.\(^\text{146}\)

**The Rotunda, Corinth (#9)**

The Western terrace of the Lower Agora at Corinth was lined with a series of small monuments that faced onto the market place, its Central and Northwest shops, two basilicas, and the Peribolos of Apollo. From a detailed description of Pausanias and archaeological remains, R. Scranton has pieced together the appearance of this terrace, reconstructing six monuments erected over a span of nearly two hundred years. Among them is a Rotunda (#9) set on a rectilinear platform that can be linked to the prosperous Corinthian, Cn. Babbius Philinus. While inscriptions indicate that Babbius was responsible for other buildings in the area, the prominent location, size, and design of the Rotunda suggest that it was his principal donation.

Based on Pausanias,\(^\text{147}\) Scranton has envisaged the Western terrace as consisting of, from the south, the Temple of Tyche, the Pantheon, a ramp leading to a row of shops and Temple E, two temples probably of Herakles and Poseidon, Babbius’ Rotunda, and a temple to Hermes.\(^\text{148}\) As well as their remains, the terrace’s retaining wall\(^\text{149}\) and changes to the ground level of the Agora help to establish a chronology for these monuments.\(^\text{150}\) To the ramp and entrances by the Central and

\(^{145}\) While Tiberius completed the Augustan Temples of Castor and Concordia at Rome, few provincial buildings beyond the Temple of Roma and Augustus at Ankara can be dated to his reign. Gros 1996a, 161.

\(^{146}\) For L. Mummius’ conquest of Corinth, see Chap. IV ‘Introduction.’

\(^{147}\) Paus. 2.2.6-8 and 3.6.

\(^{148}\) Scranton 1951, 3-4 and 67-9.

\(^{149}\) The Western Terrace, in use since Greek times, was leveled, then regularized through the addition of this wall in the 2nd c. BC. Scranton 1951, 64.

\(^{150}\) The construction of the Rotunda coincides with one of these changes in the level of the Agora and the height of the terrace wall. Scranton 1951, 23-4.
Northwest shops, which formed part of the original terrace,\(^{151}\) the Temple of Hermes and the Pantheon were added in the early first century AD. These were followed by the Temple of Tyche, Babbius’ fountain to the north of the Temple of Hermes, his Rotunda, and his fountain to Poseidon.\(^{152}\) The first century also saw the construction of Temple K, sited behind the Rotunda, while the Temple of Poseidon replaced Babbius’ fountain in 185 AD, a few years before the Temple of Herakles was built.

Babbius’ Rotunda was set on a large platform that jutted out from the terrace wall and defined a kind of precinct for the building. The platform, comprising a concrete core and marble revetment, was flanked by stairs, which provided access to both the terrace and the monument.\(^{153}\) While its revetment bore Babbius’ main dedicatory inscription,\(^{154}\) the platform supported the stylobate, eight Corinthian columns, entablature, and cone-shaped roof of his monopteros. Like the platform’s base and cornice moldings, the carving of both the architrave and the roof cornice is ornate as are the blocks fashioned to represent wedge-shaped tiles, which, together with a finial, formed the roof’s ornament.\(^{155}\)

From its elevated position, this finely detailed monopteros would have been ideal for displaying statuary. In addition to its height, its location set apart from both the Temple of Hermes and the Fountain of Poseidon, would have enabled any statue it exhibited to be viewed from the Agora below, the West shops above, and the neighboring precinct of Hermes. Even with the construction of Temple K and the Temple of Poseidon, which framed its back and south sides, the Rotunda remained an effective means of displaying statues.

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\(^{151}\) Scranton 1951, 64.

\(^{152}\) Robert 1939, 89; Scranton 1951, 16, 34 and 66.

\(^{153}\) The last means of access to the terrace was a set of stairs, preceded by columns, in front of the Temple of Hermes. Scranton (1951, 16) assigns these a late date.

\(^{154}\) Another, secondary inscription appears on the frieze course of the Rotunda. Scranton 1951, 32.

\(^{155}\) Scranton (1951, 30 pl. 12.4) suggests that the pinecone finial was sheathed in bronze.
While Babbius’ inscription does not mention the god to whom the Rotunda was dedicated,\textsuperscript{156} Pausanias lists statues of several divinities displayed on the Western terrace.\textsuperscript{157} Of these, Scranton has attributed all but the statue of Aphrodite, sculpted by Hermogenes of Kythera, to other temples.\textsuperscript{158} If a round shrine to Aphrodite,\textsuperscript{159} Babbius’ Rotunda would recall the famous Temple at Knidos (#16) as well as a monopteros erected near the agora at Sparta.\textsuperscript{160} This monopteros, mentioned by Pausanias, honored Aphrodite and Zeus, both of whom received temples on or near the Western terrace.\textsuperscript{161} Despite this Greek parallel and the proximity of the two monuments at Corinth, it seems likely that Babbius’ Rotunda celebrated Aphrodite independent of Zeus\textsuperscript{162} in the context best suited to display her striking Greek cult image.\textsuperscript{163}

\textbf{Claudius: (41-54 AD)}

Although he expanded the Empire, Claudius also retained an Italian focus, emphasized by his repair program that spanned temples, roads, aqueducts, and harbors. Notably, he built the port of Ostia at Portus, which served as Rome’s harbor.

\textsuperscript{156} The Rotunda’s identification as a temple stems from Babbius’ use of \textit{aedes} in his dedicatory inscription (see #9) as well as the number of temples present on the Western terrace.

\textsuperscript{157} Scranton (1951, 70-1; cf. #9) has discovered statues comparable in range to Pausanias’ catalogue.

\textsuperscript{158} Scranton 1951, 70-2.

\textsuperscript{159} M. Torelli, cited by Gros (1996a, 160 and cf. 1976a, 131-3), attributes the Rotunda to the Augustan colony at Corinth. He claims that it was built on the model of the Temple of Roma and Augustus (#4 and above) to honor Agrippa as Augustus’ \textit{consors imperii}. Torelli’s theory seems unlikely based on Scranton, but cannot be debated without access to his text.

\textsuperscript{160} Paus. 3.12.9-11.

\textsuperscript{161} The precinct of Zeus, to which should be linked Pausanias’ three statues of Zeus (Paus. 2.2.6-8 and 3.6), lies to the north of the Temple of Hermes.

\textsuperscript{162} At Rome, the two gods were celebrated together, as Venus and Jupiter, in the twice-yearly \textit{Vinalia}. Sabbatucci 1988, 132-8.

\textsuperscript{163} Scranton (1951, 71) tentatively suggests that statues in the “Pergamene style,” which he uncovered during excavations, were sited on the edge of Babbius’ platform.
through much of the Imperial period. Among the few temples constructed during his reign are round Temples at Rome (#37) and Ostia (#24).

The Temple of Fortuna, Rome (#37)

The foundations of the Temple of Fortuna (#37), located in the Horti Lucullani or Aciliorum as they came to be known in the second century AD, were uncovered by the garden’s excavators, H. Broise and V. Jolivet, during their 1998 campaign. The Temple crowns an elaborate complex of buildings, which were in use from the late Republic until the sixth century AD. In the course of their excavations, Broise and Jolivet have revealed much of the garden’s extent on the Pincio and have been able to impose a sequence of ownership onto the chronology suggested by the archaeological remains. Briefly, the gardens passed through the hands of L. Licinius Lucullus, who began construction in 66-63 BC, through various owners to the gens Pincia, who gave their name to the hill, to the emperor Honorius, and eventually to the papacy. While very few remains pertain to Lucullus’ garden, considered splendid by ancient authors, most of what is preserved dates to the period of

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165 The Acilii Glabriones owned the property in the 2nd and 3rd centuries AD, having acquired it from the Imperial family. CIL VI 623; Plin. paneg. 50; cf. Broise and Jolivet 1987a, 751 and 1996a, 68.
166 Cassiod. var. 3.10 (Horti’s buildings dismantled in 507-510 AD).
167 Frontinus (aq. 22.2) indicates that the aqua Virgo began sub hortis Lucullanis, providing the only ancient topographical reference to these gardens. For their extent based on physical remains, see Broise and Jolivet 1996a, 67-8.
169 For the sequence of ownership, see Broise and Jolivet 1987a, 749-53 and 1996a, 67-8.
170 These include parts of a water drainage system and a niched wall. Broise and Jolivet 1987a, 758 and 1996a, 67-8.
171 Plin. Luc. 39 and 41 (luxurious dining rooms); cf. Isid. orig. 6.5.1, Plut. Luc. 18.3 and 42.2, Cic. fin. 3.7 fol., Varro rust. 1.13.7, Plin. nat. 18.6, and Colum. 1.4.6 (his similarly extravagant villa at Tusculum). Broise and Jolivet (1987a, 748-49 and 1996a, 67) urge caution in interpreting Pliny’s remarks (epist. 39.2 and 41), which post-date Asiaticus’ building program.
Valerius Asiaticus, consul in 46 AD, who undertook a grand building program in the Horti.

P. Ligorio sketched a plan (1552-1564) of Asiaticus’ complex, which bears a strong resemblance to the late Republican Sanctuary of Fortuna Primigenia at Praeneste. It shows a central stairway leading to a rectangular terrace, flanked by rooms and crowned by a large hemicycle. Behind and perpendicular to this hemicycle is a small round building identified as a “tempio.” This building consists of a cela, whose wall, indented by seven rectangular niches, is faced with five pilasters and fronted by a hexastyle pronaos. Ligorio’s drawing has been linked with a plan of L. Bufalini (1551), which shows a similar, semicircular portico ending in antae and a round building described as the “Templum Solis.” Although excavations have proven that neither plan is accurate, the temple, curved exedra, terraces and rooms they feature are principal components of the garden.

Remains of Asiaticus’ building program include walls that frame the Horti’s perimeter and a huge complex set on axis with the Mausoleum of Augustus. This complex comprises a semicircular portico with fountain niches, acting as both an ambulatio and a sustaining wall for the terrace that opened before it and was bounded

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172 PIR V 25. Asiaticus’ gardens were planned on such an impressive scale that they may have convinced the emperor Claudius of political treachery. Broise and Jolivet 1987a, 750, and 1996a, 67-8. Possibly as a result or by falling prey to Messalina’s (PIR V 161) greed and cunning (see Tac. ann. 11.37, Cass. Dio 60[61].31.5, Platner and Ashby 1929, 268, and Richardson, jr. 1992, 200), Asiaticus committed suicide in 47 (Tac. ann. 11.1).
173 Tac. ann. 11.1; Cass. Dio 60[61].31.5.
174 See #37. Coarelli (1983b, 202-6; cf. Moneti 1993b and 1994) explores possible links between the Licinii Luculli and the Sanctuary at Praeneste to account for the similarities of plan. Although he speaks in favor of the gardens as a strict imitation of the Sanctuary, it is more likely, especially as the principal buildings date to the time of Asiaticus, that Ligorio creatively conflated the remains on the Pincio and the Sanctuary in his plan. Broise and Jolivet 1987a, 758, 1990, 474, 1997b and 1999, 267.
175 In his city plan of 1552 (see #37), Ligorio refers to the round building as the “Templum Fortunae.”
176 X. Paciotti (1557), M. Cantaro (1576), S. Du Pérac (1577), and A. Tempesta (1593) also produced plans of this site, see #37.
177 Broise and Jolivet 1999, 265-6.
178 The E and N walls were incorporated by Aurelian into his network of fortifications. Broise and Jolivet 1985, 529, and 1990, 474.
to the west by dining rooms. Dated to the reign of Claudius by a brick stamp, Asiaticus’ complex has been identified with the *nymphaeum Iovis* located in Regio VII from a contemporary capital decorated with eagles and thunderbolts, attributes of Jupiter. The round temple located above the portico, at the end point of its axis with the Mausoleum, is considered a Temple to Fortuna. This attribution is based on an inscription that ties a mid-Republican sanctuary of Fortuna to this site.

In addition to this inscription, portions of perimeter walls, columns, and capitals have been linked to the first Temple of Fortuna. Of Asiaticus’ Temple, two boundary walls exist, while what remains of the Temple building dates to the fourth century AD, contemporary with Regionary Catalogues that refer to it as *novum* or built “anew.” While Asiaticus may have been influenced by the pre-existing sanctuary in constructing his Temple and nymphaeum, the orientation of his complex suggests that he intended to link it both visually and ideologically to the Mausoleum of Augustus. Through this connection, he may have sought to strengthen his political ties with the deified emperor and, by extension, with Imperial command. His Temple of Fortuna, the goddess who shaped human destiny, and his nymphaeum to the all-powerful Jupiter were the most effective means in his power to achieve these aims and, by doing so, demonstrate his desire for an illustrious fate.

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180 The portico extends between the Villa Medici and Trinità dei Monti, while the dining rooms are preserved beneath the convent. Broise and Jolivet 1996a, 69.
181 While a brick stamp could point to construction undertaken during his successors’ reigns (see #56 above), based on the extent of Asiaticus’ building program, it seems likely that the complex dated to his ownership.
182 Broise and Jolivet 1990, 473-4, and 1996a, 69; De Spirito 1996b, 353. For later modifications to this complex, see Richardson, jr. 1992, 200, and Broise and Jolivet 1996a, 70.
183 The Temple was probably accessed via a set of ramps or stairs from the exedra. Broise and Jolivet 1996b, 455.
184 CIL VI 184; cf. Broise and Jolivet 1990, 474.
185 See #37. The Temple of Fortuna lies underneath a Renaissance pavilion known as the Parnassus.
186 See #37.
A small circular building (#23) at the center of Ostia’s Forum has been identified as a Shrine to the Lares Augusti, protectors of the Imperial household, based on seven inscribed plates found in its vicinity. These plates, discussed by H. Bloch, indicate the Shrine’s founders as well as the dates of its dedication and a key ceremony connected with the cult. While four of these plates signal donations made at the Shrine, the curvature of three corresponds to that of its remains, a brick ring encircled by a cornice and embedded with six rectilinear niches. The three curved plates formed part of the revetment and architrave of the Shrine, otherwise enigmatic due to its absence of columns, commonly employed in aediculae, and more significantly, of an entrance.

Although it is difficult to tell how the Shrine functioned from its remains, the first two inscriptions studied by Bloch identify it as a \textit{Laribus Augustis sacrum}, set up during the reign of Claudius by \textit{magistri primi de sua pecunia}. These \textit{magistri primi} are named in the third and fifth inscriptions as L. Seius Hermeros, L. Seius Primus, and L. Seius Diomedes, while the dates of the Shrine’s dedication, 1 January 51 AD, and \textit{lustratio}, 26 June, appear in the fourth inscription. The \textit{magistri primi}, also alluded to in the sixth and seventh inscriptions, were the first

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189 See #24 and below. For their findspots, see Bloch 1962, 212.
190 Bloch 1962, 212-3 and 218.
191 At Rome, the Lares were worshipped in \textit{aediculae}, like the Shrine of the Lares Praestites (see Coarelli 1999b, 175-6) next to the Temple of Vesta (#57), and at \textit{comptia} or altars (see Bakker 1994, 129).
192 Even though this building was referred to by its dedicators as an \textit{aedicula}, Bloch (1962, 219) compares it to a tower, a word used by the scholiast on Persius (4.28) to describe \textit{comptia}.
193 Bloch 1962, 214-5 figs. 4-5.
194 Based on the similarity of the names and the word \textit{libertas} used to describe two of the three \textit{magistri}, Bloch (1962, 216-8 fig. 6; cf. Meiggs 1973, 354) has envisaged the Shrine’s donors as freedmen of L. Seius Strabo, \textit{praefectus praetorio} in 14 AD, or L. Seius Tubero, \textit{consul suffectus} in 18 AD.
195 Bloch 1962, 216-7, 221 and fig. 7.
196 Bloch 1962, 218.
stewards of the cult at Ostia. Though the cult of the Lares Augusti was established in Rome as early as 7 BC,\(^{197}\) it took Claudius, who embraced the religious policies of Augustus,\(^{198}\) to promote its introduction to Ostia in 51.\(^{199}\) The *magistri primi*, whom he assigned to oversee the cult, began their first term on the Shrine’s dedication day\(^{200}\) and took part in the *lustratio*, a cleansing ceremony connected with its inauguration.\(^{201}\)

While the cult of the Lares Augusti was not among the most prominent in the Empire,\(^{202}\) the Shrine’s location is significant as it demonstrates the importance of the Imperial cult, underlined by the nearby Temple of Augustus and Roma, at Ostia.\(^{203}\) This relationship is stressed further by a reorganization and amplification of the cult in the late first century AD and by the construction of a seat or hall of its magistrates on the Decumanus Maximus in the mid-second century.\(^{204}\)

**Nero: (54–68 AD)**

While his contributions to the development of Roman architecture had a significant impact on later round temples, Nero was only directly responsible for rebuilding the Temple of Vesta (#57) at Rome.\(^{205}\)

**The Temple of Vesta, Rome (#57)**

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\(^{197}\) For the organization of the cult at Rome and a discussion of its shrines and altars, see Bloch 1962, 219-20 n. 16, and Bakker 1994, 129-32 and 201.

\(^{198}\) Tac. *ann.* 12.11; Suet. *Claud.* 11.2; *CIL* XIII 1668.2.1-4; cf. Bloch 1962, 221 and Bakker 1994, 123.

\(^{199}\) See Bloch 1962, 222-3, for evidence of the Lares at Ostia prior to the Claudian period.

\(^{200}\) Bloch 1962, 221.

\(^{201}\) Bakker 1994, 122-3. For a Roman shrine of the Lares Augusti, which refers to this ceremony on its architrave (*CIL* VI 451), see Bloch 1962, 222.

\(^{202}\) Alföldi 1973, 42.

\(^{203}\) Bloch 1962, 223; Meiggs 1973, 132.

\(^{204}\) Pavolini 1989, 213-4; Pensabene 1996b, 214-5.
Based on Tacitus, who lists a delubrum Vestae among the sanctuaries destroyed in 64 AD and restored by Nero,\(^{206}\) R. Scott has suggested that both the Temple of Vesta (#57) and its Area Sacra were repaired at the end of Nero’s reign.\(^{207}\) His hypothesis is supported by Julio-Claudian brick stamps used to restore a collapsed drain and to restructure the east side of the precinct,\(^{208}\) as well as by representations of the Temple on Neronian coins. These aurei and denarii, minted after 64, depict the Temple as a monopteros set on a stepped podium with Ionic columns and a domed roof. The Temple is identified by a seated figure of Vesta,\(^{209}\) holding a scepter and a patera, who appears beneath a smoke hole.\(^{210}\) Nero’s coins, which closely resemble those minted to celebrate Caesar’s reconstruction, suggest that, though he repaired the Temple, he did not significantly alter its design.

**Round temples dated to the Julio-Claudian period:**

As part of Augustus’ commitment to reviving traditional beliefs, new temples to established gods were built throughout the Julio-Claudian period.\(^{211}\)

**The Perirrhanterion, Rome (#51)**

Excavations near the Theater of Marcellus in Rome have uncovered the foundations of a circular building (#51) illustrated on the Severan Marble Plan. The

205 However, some work on the Shrine of Venus (#55) may date to his reign as Vacca (et al. 1704, 58) notes that Neronian pipes were found in its vicinity. Due to their exceptionally large diameter, Lanciani (1888, 6) considers it unlikely that they signal the Shrine’s conversion into a nymphaeum.

206 Tac. *ann.* 15.41 and *hist.* 143.

207 Scott (1993a, 17) believes that delubrum refers to the Area Sacra of Vesta, not only to the Temple, while Nero’s rebuilding work also included additions to the Atrium Vestae.


210 See #57. The presence of the smoke hole proves that the Temple lacked a cult image (Ov. *fast.* 6.925-8; vs. Scott 1999b, 127, who implausibly proposes that a cult statue of Vesta was introduced in the 1st c. AD).
foundations, sited at the level of the Julio-Claudian pavement, appear on Fragment 31n of the plan as one of two circles in an area delimited by the theater, the Porticus of Octavia, and the Temple of Apollo Medicus. Supporting a monopteros, whose remains date to the reign of Vespasian, they may mark a site connected with the worship of Apollo from the Archaic period. Literary sources refer to a sanctuary of Apollo in *Prata Flaminia*; known as *Apollinaris*, this sanctuary centered around a natural spring used for purification rituals. Based on its proximity to the Temple of Apollo, erected in the sanctuary in 433 BC, and possible parallels, E. La Rocca has proposed that the monopteros provided a shelter for the spring from the first century AD.

In addition to Frontinus, who refers to the spring as a source of Apollo, Plutarch may mention it in his narration of the murder of M. Marius Gratidianus. He describes how Catilina, after decapitating Marius, washed his hands of blood in the *perirrhanterion*. This term, which lacks a Latin equivalent, seems to refer both to a lustral source and to the implements employed in ritual cleansing. By using this term as well as language common to descriptions of human sacrifice, Plutarch may imply that Catilina followed traditional purificatory rites in his attempt to cleanse himself.

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211 In addition, the Hellenistic Rotunda at Ilion (#14) may have been restored, while the Shrine of Apollo Delphinios at Miletos (#19) was rebuilt during the early Julio-Claudian period.
212 La Rocca 1993, 23-4, vs. 1999a, where he suggests that the foundations could be Flavian.
213 Rodriguez Almeida (1993a, 42) remarks on the limited accuracy of this fragment.
214 La Rocca (1993, 23-4 and 1999a) has identified the other circle as the Columna Bellica.
215 See Chap. VI #51.
216 Liv. 3.63.7, 4.25.3 and 40.51.6; cf. Aronen 1995a, 257. La Rocca (1993, 23) considers this one of three such sites in Rome.
217 For a discussion of the temple and its connection to lustral rites, see Viscogliosi 1993, passim.
218 La Rocca 1993, passim, and 1999a.
221 La Rocca 1993, 22 and 1999a.
223 La Rocca (1999a) speculates that the rituals undertaken at the source of Apollo may have been intended for victorious generals returning to triumph in the city.
If the monopteros served as a shelter for the *perirrhanterion*, then, La Rocca suggests, it may find parallels in the Rotunda at Ilion (#14), the Monopteros at Pompeii (#28), and the Shrine of Fortuna Primigenia at Praeneste (#30). However, although they rested on wells, there is no evidence to show that any of these monuments either originated as natural springs or were employed in ritual purification. Moreover, their prime locations suggest that they functioned as the Mundi of their cities. A closer match is the Shrine of Venus Cloacina, a circular platform surmounted by a balustrade, whose involvement with ritual cleansing is attested in the sources. Like the Perirrhanterion, which may have been fed by a pipe alongside the Temple of Apollo Medicus, the shrine of Venus found a constant water supply in the Cloaca Maxima. For its use of a monopteros however, the Perirrhanterion may have more in common with Hellenistic tholoi at Argos and Miletos (#19), which served as monuments to the healing and cleansing powers of Apollo.

**The Shrine of Hercules, Rome (#41)**

Although not attested in written sources, significant archaeological remains point to the existence of a round Shrine (#41) beside the Tiber. The Shrine stood in an area adjacent to the later Pons Aelius, which may have served as a port in the late Republican and early Imperial periods. Local finds of marble fragments as well as an

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225 The same reasoning applies to the Mundus in the Roman Forum (#49), which La Rocca (1993, 21) also cites as a possible parallel.
227 La Rocca 1993, 23. This pipe may have been installed after the natural source ran dry.
228 The shrine is only a valid parallel if, like the Perirrhanterion, its source was once natural.
229 For the Tholos in the Sanctuary of Pythian Apollo at Argos, see Robert 1939, 6 and 421.
inscription naming a *portus vinarius* have led scholars to propose that the port serviced the marble or wine-producing industries. Through its location, the Shrine may have had some involvement in the trading activity of the port.

The Shrine rested on an earlier pier projecting at an angle into the river, which its excavator D. Marchetti identified as part of a bridge. This pier, formed of tufa *opus quadratum*, extended beneath the Shrine and a hemicycle. Consisting of fifteen columns and two projecting antae, the hemicycle was aligned with the back of the Shrine, most likely a monopteros, which in turn was preceded by a rectangular altar. The altar, which features a bucranium above the crossing of two plane branches, is stylistically comparable to work of the Julio-Claudian period.

In addition to the altar, three capitals have been found which pertain to the Shrine or the hemicycle. Highly unusual, they appear wrapped by a lion skin, while, like the altar, their rich detail and naturalistic carving date them to the Julio-Claudian period. Though the lion skins suggest that the Shrine honored Hercules, Marchetti prefers Liber based on a fragmentary inscription discovered nearby. This

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230 *CIL VI* 9189-90, cf. 9181a-c and 9182, *CIL VI* 8826, and Flamard 1987, 201-10.
231 Marble: Marchetti 1891, 53-60 and Flamard 1987, 204; wine: Rodríguez Almeida 1993c, 154-5.
232 Marchetti (1891, 46-7; cf. Rodríguez Almeida 1993c, 154) dates the pier to the Augustan period, but attributes the Shrine to the third century AD (see Chap. VI #41). As he notes, the relative positions of both structures go against assigning them the same date, though it is more likely that the pier was Republican and coincided with the opening of the port. See Flamard (1987, 203-4 n. 52) for the dating limits imposed by the pier’s use of both Grotta oscura and Anian tufa.
233 Marchetti 1891, 45.
234 Strong 1961, 92; Paris 1979, 264-5. Though Marchetti (1891, 46) identified them as vines, their slender branches and broad leaves with five three-toothed lobes are typical of plane or sycamore trees. Uncommon in the Roman decorative repertory, plane branches also appear on brick stamps of the *figlinae Platinianae*. Coarelli 1996n, 94.
235 See ‘Statuary’ below.
236 The cult image of the Temple of Hercules in foro Boario (#43) incorporates this motif (see Chap. IV ‘Statuary’). However, hoping to support his attribution of the Shrine to Liber (see below), Marchetti (1891, 46; cf. Azzurri 1892, 175-7 and Dayan 1979, 334) interprets the animal skin as a panther’s.
237 von Mercklin 1962, 278; La Rocca 1984, 63. However, Dayan (1979, 334) dates the capitals to the 2nd c. and Marchetti (1891, 46) to the 3rd, while Rodríguez Almeida (1993c, 154) believes that the base was reused and does not speculate on the date of the capitals.
238 Marchetti 1891, 46.
inscription, now lost, read LIB[ER] and may have adorned either the Shrine’s architrave or a round base.  

Like the Shrine’s remains, its location is of limited help in determining the god to whom it was dedicated. If sited in a port, it recalls the Temple of Hercules Victor ad portam Trigeminam (#44), which may have honored Hercules for his military might, symbolized by his labors, or for his role as the patron of merchants. While both aspects of Hercules could be represented, it is equally possible that, if the port was employed in the wine trade, the Shrine honored Liber-Bacchus, the god of wine. To account for both possibilities, E. Rodríguez Almeida suggests that the cults of Hercules and Liber were fused in this area of the port. However, lacking verification of Marchetti’s inscription, Hercules seems the better choice based on the capitals, which employ one of his most potent attributes.

III ANALYSIS

TEMPLE FOUNDATION AND LOCATION

Many of the principles that guided the foundation and location of temples in the late Republic remained valid in the Julio-Claudian period. In the tradition of “victory temples,” the Senate decreed a Temple to Mars Ultor on the Capitoline (#46), while to express his allegiance to Vesta, whom he served as Pontifex Maximus, Augustus set up a sanctuary in his house on the Palatine (#56). Once private, his house became public with the incorporation of her sanctuary and the Temple of Apollo. Agrippa’s Pantheon (#50) also began as a private foundation as did Valerius

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239 Architrave: Marchetti 1891, 46, Platner and Ashby 1929, 251, and Dayan 1979, 334; altar: Gusman 1901-1914, pl. 30.
240 See Chap. IV #44.
241 Rodríguez Almeida 1993c, 154.
As in the late Republic, the Campus Martius proved an appealing choice for temple foundations. Central to this area were Agrippa’s horti, which served as the focal point of his building program. The Pantheon, its main feature, may have opened towards the south to face the Basilica Neptuni or the north in the direction of the Mausoleum of Augustus. Even if, by facing south, the Pantheon was tied to Agrippa’s military prowess, its location near the site of Romulus’ apotheosis lends it a dynastic quality. This quality would be enhanced by its orientation of 355°, if the Pantheon faced north, which marks the region of the sky in which Julius Caesar’s famous comet of 44 BC appeared. Moreover, a northern orientation would establish sight lines not only with the Mausoleum, but also with Augustus’ Horologium and Ara Pacis. Coarelli has suggested that the Pantheon, linked to other significant projects of his reign, formed the centerpiece of buildings which, albeit indirectly, promoted the Imperial cult in Rome.

By orienting his Temple of Fortuna towards the Mausoleum, Valerius Asiaticus may have drawn on the same ideology in attempting to link his fate with

242 See Chap. IV ‘Temple foundation and location.’
243 As private dedications, they may be comparable to the late Republican Shrine of Venus (see Chap. IV #55).
244 Until further excavations reveal which reconstruction is correct (see #50 above), the implications of both should be considered.
245 If Ziolkowski is right (see #50 above), the Campus Martius would be fitting for Agrippa’s victory monument.
246 This comet marked the beginning of the ludi Victoriae Caesaris (Plin. nat. 2.93). Nissen 1873, 549; Hautecoeur 1954, 166; Gros 1976a, 149.
247 La Rocca 1999b, 282.
248 Coarelli (1988, 74-5) suggests that Augustus was inspired by Hellenistic cities like Alexandria, where buildings as diverse as gymnasia, temples, and mausolea were brought into the service of the ruler cult.
Augustus'. Even more than the Campus Martius, hill sites like Asiaticus’ horti allowed sight lines to be created with ease, while providing space for new constructions.

As for the Pantheon and the Temple of Fortuna, the locations of the Perirrhanterion (#51) and the Shrine of Hercules (#41) were determined in relation to important landmarks. The Perirrhanterion may have been built to shelter a natural spring of Apollo next to the Theater of Marcellus. This role would explain its awkward proximity to the Theater, as well as its orientation towards the Temple of Apollo in Circo. Similarly, the Shrine of Hercules’ location near a port, facing the Campus Martius, may reflect the god’s role as both a protector of merchants and a patron of military victors.

Outside of Rome, prominent locations were held in high esteem. The Shrine of the Lares Augusti occupied a central position in the Forum of Ostia, while the Rotunda rose above the Lower Agora at Corinth and the Temple at Athens, crowning the Acropolis, stood among the most sacred buildings of the city. Sited on axis with the Parthenon, the Temple was near the Erechtheion, from which it drew its proportions and ornament. 

The Julio-Claudian period reveals a duality in the relationship between round temples and their environment. The Temple at Athens, the Rotunda at Corinth, the Shrine at Ostia, and more subtly, the Pantheon’s round court, stand in sharp

249 The impact of Fortuna as the goddess of fate is enhanced by the complex’s similarities to the Sanctuary of Fortuna Primigenia at Praeneste, see #37 above.
250 This is also characteristic of late Republican temple foundations, see Chap. IV ‘Temple foundation and location.’
252 See ‘Decorative details’ below. In both the Greek and Roman periods, temples to the ruler cult were sited in significant locations, cf. Ephesus and Caesarea (Ios. antiqu. 15.339). Zanker 1988, 298.
253 Like the Shrine at Ostia, that of Apollo Delphinios at Miletos (#19) was framed by a rectilinear court, but was balanced or harmonized (see below) by two semicircular exedras.
contrast to the rectilinear buildings or porticoes that frame them. The Temple of Fortuna, the Perirrhanterion and the Shrine of Hercules rather strive to harmonize with neighboring features, echoing the curves of the semicircular portico on the Pincio, the Theater of Marcellus and the hemicycle. Inspired by the Temple at Praeneste (#31), which mirrors the form of the portico that precedes and almost conceals it, these temples are successful in creating continuity by reflecting and engaging with their surroundings. Both of these trends will have an impact on the location of future round temples.

BUILDING MATERIALS AND TECHNIQUES

Masonry techniques

Two of the masonry techniques employed in the construction of late Republican round temples found favor in the Julio-Claudian period. Opus quadratum, the Greek method used to best advantage in the Temple of Hercules Victor ad portam Trigeminam (#44), appears in the foundations of Agrippa’s Pantheon (#50) and is simulated in the marble revetment of the platform at Corinth (#9) and of the Shrine of the Lares Augusti at Ostia (#23). Similarly, opus reticulatum, known from the Temple of Fortuna Huiusce Diei (#38), is used in the platform’s core as well as in the perimeter walls of the Temple of Fortuna on the Pincio (#37).

Both of these techniques, employed in the foundations of the Perirrhanterion (#51), are frequent features of early Imperial architecture. While opus quadratum is

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254 As in the Hadrianic Pantheon (see Chap. VI #50), the contrast between round and rectilinear forms in these buildings, hemmed in by their surroundings, may have been more apparent from their interiors. 255 The hemicycle in turn reflects the banks of the Tiber. 256 See Chap. IV #31.
usually confined to large-scale building projects, *opus reticulatum* is more widespread. Its ease of production and suitability for a range of building types ensures its use through the early second century AD,\(^{258}\) when it is eclipsed by *opus testaceum* or brickwork. *Opus testaceum*, formed from courses of kiln-fired bricks, was first used in selected monuments of the early Julio-Claudian period\(^{259}\) and more widely to rebuild Rome following the fire of 64 AD. This method, quicker and more economical than *opus reticulatum*, was employed in the wall of the Shrine at Ostia.\(^{260}\)

**Roofing techniques**

Like the majority of late Republican round temples, most dating to the Julio-Claudian period employed timber roofs. The Rotunda at Corinth (#9) preserves sloping marble plates, carved as tiles, and a finial indicative of a timber roof.\(^ {261}\)

Though no longer extant, timber roofs can be reconstructed for the Temple of Roma and Augustus (#4) and probably for the Perirrhanterion (#51) and the Shrine of Hercules (#41).\(^ {262}\)

Although the time-tested pattern afforded by Greek roofs was appealing to most round temple builders, some may have begun to experiment with the possibilities of Roman domes and vaults. While the Temple at Praeneste (#31) may have been roofed by an early dome, coins depict a dome on Nero’s Temple of Vesta (#57). Moreover, according to La Rocca’s reconstruction, an annular vault may have

\(^{257}\) The foundations and screen wall of the Temple of Roma and Augustus at Athens (#4) may have employed this technique.

\(^{258}\) Adam 1994a, 133 and 141.

\(^{259}\) The first large-scale building project to employ brick was Tiberius’ Castra Praetoria, 21-23 AD. Adam 1994a, 145. The other masonry technique developed at this time, namely *opus vittatum*, was not used in Julio-Claudian round temples. Adam 1994a, 135 and 139, and see Chap. VII ‘Masonry techniques.’

\(^{260}\) Almost all buildings constructed in Ostia from the 2nd c. AD were brick. Adam 1994a, 145-6.

\(^{261}\) For comparable Greek roofs, see Chap. IV ‘Roofing Techniques.’
ringed the round court of Agrippa’s Pantheon (#50). This vault, formed from concrete poured on a wooden scaffolding, would have resembled those known from Praeneste’s Terrace of the Hemicycles. Though a key feature of later round temples, Roman domes and vaults were not in wide enough use until the second century AD\textsuperscript{263} to support the existence of a dome on the Temple of Vesta or a vault in the Pantheon.

**BUILDING COMPONENTS**

As in the late Republic, the foundations and podia of Julio-Claudian round temples, where known, follow both Greek and Italic trends. Like the Temple of Hercules Victor *ad portam Trigeminam* (#44) and the Shrine of Hermes and Maia on Delos (#10), the Perirrhanterion (#51) rests on rings of stone blocks, albeit arranged around a concrete core.\textsuperscript{264} Roman concrete is also employed in the ring foundations that enclose the circular court of the Pantheon (#50) and in the platform beneath the Rotunda at Corinth (#9).\textsuperscript{265}

Both the Pantheon and the Rotunda moreover include Roman podia. According to either reconstruction, the Pantheon is reached by a stepped porch. While, if La Rocca is correct, this porch might resemble a Hellenistic propylon\textsuperscript{266}, the height and access stairs of its podium would recall almost any Republican or contemporary Roman temple.\textsuperscript{267} Similarly, the Rotunda at Corinth rests on a high platform that serves as its podium. Accessed by side stairs, it is less conventional, but

\textsuperscript{262} A concrete dome, too heavy for any of them to support, would have been especially out of place in the Temple of Roma and Augustus.

\textsuperscript{263} In the 1\textsuperscript{st} centuries BC and AD, domes were confined to bath buildings like the “Temple of Mercury” at Baia. Sear 1982, 79-80; Adam 1994a, 186-7. For Nero’s contributions to the history of the dome, see ‘Introduction’ above.

\textsuperscript{264} The Temple of Roma and Augustus and the rectangular cella or porch of the Pantheon rest on stone blocks, while the Rotunda at Corinth may have incorporated a poros layer between its core and revetment.

\textsuperscript{265} The Temple of Vesta’s (#57) concrete foundations remained unchanged from the late Republic (see Chap. IV ‘Building components’).
does have parallels in the Temples of Apollo *in Circo*, Venus Genetrix and Divus Iulius.\(^{268}\) While the Shrine of the Lares Augusti at Ostia (#23) lacked a podium, like the Perirrhanterion (#51), the Temple of Roma and Augustus at Athens (#4) employed a Greek krepis to support its colonnade.\(^{269}\)

Comparable to the moldings favored in the late Republic, those extant from the Rotunda at Corinth and the Shrine at Ostia employ forms common to the Greek repertory. Likewise, the preserved Attic column bases from the Temple of Roma and Augustus are near copies of those used in the Erechtheion, as are the shafts with lotus and palmette collars, Ionic capitals and entablature. The Attic bases of the Rotunda at Corinth, its Corinthian capitals and Ionic entablature also have Greek origins, albeit less clearly defined, as do the Corinthian capitals of the Pantheon. Perhaps the best expression of Greek influence on Augustan round temples is the Pantheon’s caryatids which, not previously attested in Roman architecture, are attributed to a famous Greek craftsman.\(^{270}\) To balance this influence, the figurative capitals of the Shrine of Hercules (#41), unusual for any period,\(^{271}\) use a Roman Corinthian capital as their base.

In their overall form, most of the round temples datable to the Julio-Claudian period are reminiscent of their late Republican and Greek precedents.\(^{272}\) Among the few exceptions are the Pantheon, whose round court would have few parallels, the Shrine at Ostia, a drum without an entrance, and the Shrine of Hercules, whose hemicycle lacks clear comparanda. These exceptions, inspired by the experimental

\(^{266}\) Loerke 1982, 52.

\(^{267}\) Temple of Divus Iulius serves as a good contemporary example.

\(^{268}\) Favro 1984, 220 n. 93 and 222.

\(^{269}\) The Rotunda at Corinth rests on a single step.

\(^{270}\) Diogenes of Athens is credited with the bronze capitals and caryatids of the Pantheon (see #50 above). For the caryatids used in the forum of Augustus, see Gros 2001, 477.

\(^{271}\) See ‘The column capital’ below.

\(^{272}\) For comparable monopteroi, see Chap. IV ‘Building components.’ The screen walls of the Temple of Roma and Augustus may find parallels in the Temple of Aphrodite at Knidos (#16).
spirit of the first Augustan architects, like the more conventional round temples, fit within the framework of Augustan and Julio-Claudian architecture as it develops in Rome and the provinces. Taken as a microcosm of Roman architecture at this date, they show Augustus’ emphasis on traditional Greek and Italic forms and use of exuberant ornament, combined with developments in the Corinthian order that will comprise his legacy.

DECORATIVE DETAILS

The podium molding

As in the late Republic, the molding preserved from Julio-Claudian round temples relies heavily on the Greek cyma recta and reversa. The simple, angular crown of the platform at Corinth (#9) incorporates a cyma recta between two sets of fascias and fillets, while its base molding consists of a torus, fascia, and cyma reversa, surmounted by two fillets. Between a torus and fillets, the base molding of the Shrine of the Lares Augusti at Ostia (#23) employs a deeply sloping cyma reversa.

While the Shrine’s projecting molding recalls the base of the Temple of Hercules at Ostia, ca. 75-70 BC, both it and the Rotunda at Corinth, whose verticality is shared by the Temple of Juno Sospita in the Forum Holitorium, follow many Julio-Claudian temples in eschewing the extravagant profiles of the late Republic.

273 See Chap. IV ‘The podium molding.’
274 Adam 1994b, fig. 37 nos. 7 and 12. Comparable Augustan moldings may be found in Temple A of the Area Sacra di Largo Argentina and in the temples of the Forum Holitorium (Adam 1994b, 50-1 fig. 37; Gros 1996a, 134-5), while the moldings of the Temples of Fortuna Huiusce Diei (#38) and of Portunus are among the most exuberant of the late Republic, see Chap. IV ‘The podium molding.’
Instead, their use of moldings recalls that of Classical Greek temples, whose elegant and refined finish was much admired by Augustan architects.\textsuperscript{275}

**The column base**

Developed during the late Republic,\textsuperscript{276} the Roman version of the Attic base is used in almost all Julio-Claudian monuments, both in Italy and in the provinces.\textsuperscript{277} Of the round temples, the Temple of Roma and Augustus at Athens (#4)\textsuperscript{278} and the Rotunda at Corinth (#9) had bases of this type. Resting on the krepis of the Athenian Temple and the stylobate of the Rotunda, their bases consisted of two tori separated by a scotia and two fillets. Like most Julio-Claudian bases, they are carved independently of the column shafts,\textsuperscript{279} but do not rise from plinths, a common feature of the late Augustan period.\textsuperscript{280}

**The column shaft**

Like the Pantheon’s (#50) caryatids, the form and ornament of the Temple of Roma and Augustus’ (#4) column shafts derived from the Erechtheion at Athens. Not only are their spacing and entasis comparable, but their collars decorated with alternating palmettes and lotus flowers are direct quotations of the column collars.

\textsuperscript{275} The strip that surmounts the crown molding of the Rotunda adds to its finished effect. First used in the Temple of Fortuna Huiusce Diei, in the Augustan period, it appears in Temples of Juno Sospita and of Janus in the Forum Holitorium. Gros 1996a, 134.

\textsuperscript{276} See Chap. IV ‘The column base.’

\textsuperscript{277} Augustus’ Temple of Mars Ultor preserves several good examples (see Kockel 1995). Strong and Ward-Perkins 1962, 7-8.

\textsuperscript{278} The massing of the base is similar to that of the more complex Ionic bases along the east side of the Erechtheion. Binder 1969, 77.

\textsuperscript{279} This marks a departure from late Republican practice, see Chap. IV ‘The column base.’

\textsuperscript{280} Though common in the Classical and Hellenistic periods, this practice was not favored in the late Republic. Strong and Ward-Perkins 1962, 5 and 11-2; Gros 2001, 495.
used along the Erechtheion’s east façade. This decorative band, framed by bead-and-reel and egg-and-dart molding courses, native to fifth century Greece, is reflected in ornament of the Basilica Paulli and the Milliarium Aureum at Rome.

The column capital

As in the late Republic, Julio-Claudian architects preferred to use the Corinthian order for most new temple foundations. Appealing for their ornamental quality, Corinthian capitals were especially valued in Rome for their adaptability and associations with Greek culture. In Greece however, all three orders were employed through the Augustan period, when Ionic capitals featured in the Temple of Roma and Augustus (#4). These capitals, topped by a band of egg-and-dart molding, are closely related to the capitals of the Erechtheion’s east face, though their abacus is larger and their volutes are wider and more pronounced.

While their basic form and components were established by the late Republic, the style and proportions of Corinthian capitals were not yet formalized. The first Augustan examples, in contrast to the rich and organic decoration of late Republican capitals, appear both flat and stylized. Their leaves, with deep nerves, lobes symmetrically opposed, and uniform hollows, are set beneath caulicoli whose

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281 Binder 1969, 78-84. See ‘The entablature’ below, for the comparable frieze course of the Rotunda at Corinth (#9).
282 Locri provides a more organic 5th c. BC example. Binder 1969, 85 pl. 9.
283 By comparison to the collars of the Temple of Roma and Augustus, their ornament appears more rigid and geometric. Binder 1969, 87 and pl. 10b.
284 See Chap. IV ‘The Corinthian capitals of the round temples.’ Nero’s repair of the Temple of Vesta (#57) retained the Ionic order employed in the late Republic.
285 Favro 1984, 210; Zanker 1988, 106. It is the adaptability of Corinthian capitals that allowed them to serve as a base for the figurative capitals of the Shrine of Hercules (#41), see below.
286 Gros 1996a, 160.
287 See Strong and Ward-Perkins (1962, 17) for examples of this motif used on the abacus of Corinthian capitals.
289 Gros 1996a, 145; cf. Chap. IV ‘The Corinthian capital in the late Republic.’
vertical ridges and broad rims open up to a controlled flourish of volutes and helices.290

By the later Augustan period however, a trend towards natural and autonomous forms begins to emerge, wherein leaves are shown elongated and spread more freely across the surface of the capital.291 Most notable in capitals from the Temple of Mars Ultor,292 this increased naturalism soon surpasses that of late Republican capitals, whose two-block construction restricted both the height and spread of their ornament.293 Like the late Augustan capitals, those of his successors couple an interest in naturalism with high quality carving.294

Although few in number, the Corinthian capitals preserved from Julio-Claudian round temples adhere to the trends set by Augustan architects in Rome. The capitals of the Rotunda at Corinth (#9) employ two tiers of acanthus leaves, whose rigid nerves are combined with lightly folded lobes and irregular hollows.295 As these tiers begin to invade the zone of the volutes and helices, a third extends from the calices to frame the volutes. This unusual feature, which also appears in the Tiberian Temple of Castor, is complemented by a second, a rosette rising on a thin stem to rest on the capitals’ abacus.296

Onto the form of the Corinthian capital, the capitals of the Shrine of Hercules (#41) graft a lion skin, widening at the top where the paws supplant the volutes.

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290 This is especially true of the capitals of the Temples of Divus Iulius, Saturnus, and Apollo Palatinus. Strong and Ward-Perkins 1962, 13-5; Gros 1996a, 209-10, 1996a, 145, and 2001, 476.
291 Gros (1996a, 145; cf. Heilmeyer 1970, 50-1) links this development to influences from Asia Minor, where asymmetrical arrangements of forms, particularly the leaves of capitals, were common.
292 Heilmeyer 1970, pl. 2.1 and 3.3; Gros 2001, 476-8. Slightly earlier, and less naturalistic, examples may be found in the Temple of Apollo in Circo. Leon 1971, 149-50, 157-8, 160, 162, 164-5, and pl. 60.1, 62.1 and 63.1-2; Gros 1996a, 145; Viscogliosi 1996a, 88-9 and 108-9.
293 Chap. IV ‘The Corinthian capital in the late Republic.’ By the mid-1st c. AD, all capitals, regardless of size, were carved from a single block. Strong and Ward-Perkins 1962, 12; Gros 2001, 477.
294 Heilmeyer 1970, 127; Gros 2001, 484.
295 Heilmeyer 1970, 61 and 67 (comparable capitals at Roman Corinth). Their use of the Corinthian order, in contrast to the Athenian Temple’s Ionic, may be a conscious reference to Rome.
Symmetrically modeled, the lion’s head is finely carved with deep hollows used to define its eyes, mouth, and mane. These hollows, effecting a contrast between light and shade, lend an organic quality to the capitals’ surface. 297 Like their refined execution and use of naturalistic forms, comparable subject matter on a capital of late Republican or Augustan date may help to assign them to the Julio-Claudian period. 298 This capital, depicting a lion’s scalp with its mane wrapped around clubs, though less finely modeled, uses deep carving, light and shade to define the lion’s features. 299 Less typical of Julio-Claudian capitals than those of the Rotunda at Corinth, the lion skin capitals, nonetheless, partake of the experimental spirit shared by many Julio-Claudian craftsmen. 300

The entablature

Introduced into the Roman repertory in the late Republic, 301 the modillion cornice, the defining element of the Corinthian entablature, becomes a regular feature of Augustan architecture in Rome. 302 Outside of Italy however, standard Ionic entablatures continue to be used throughout the Julio-Claudian period. 303 The Temple of Roma and Augustus at Athens (#4) preserves a modest example with a three-fascia architrave, a blank frieze course, and egg-and-dart molding in place of dentils. 304

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296 Examples may be found in the Temples of Apollo Palatinus and Divus Iulius. Strong and Ward-Perkins 1962, 14.
297 Dayan 1979, 334-5.
298 For debates surrounding their date, see #41 above.
299 von Mercklin 1962, 277-8 no. 660.
300 Though less apparent in the architecture of Augustus’ successors (prior to Nero), architects and craftsmen did not entirely abandon their interest in experimentation when Augustan Classicism was formalized, see Gros 2001, 484 and below.
301 See Chap. IV ‘The entablature.’
302 Though omitted from Vitruvius’ treatise on Roman architecture (see Gros 1976a, 197-201), modillion cornices may be found in the Temples of Divus Iulius, Apollo Palatinus and in Circo, and Mars Ultor. Gros 1976a, 207-7, 210-1 (Divus Iulius), 221-7 (Apollo in Circo), and 231-4 (Mars Ultor).
Like the entablature on the east face of the Erechtheion,\textsuperscript{305} that of the Temple incorporates bead-and-reel astragals\textsuperscript{306} and a cyma reversa as frames for its frieze course.\textsuperscript{307} These motifs, common from the Augustan period,\textsuperscript{308} also appear as crown moldings in the Ionic entablature of the Rotunda at Corinth (\#9).\textsuperscript{309} This entablature includes a three-fascia architrave, an anthemion frieze course, and dentils.\textsuperscript{310} With comparable examples in the Temples of Mars Ultor and Castor and the Forum of Augustus, its frieze comprises palmettes alternating with S-shaped volutes.\textsuperscript{311} While the Rotunda’s frieze is more stylized than the Roman examples, anthemion friezes as such are common to Rome and her provinces from the Augustan period.\textsuperscript{312}

**Pavements**

Like temples of the late Republic, Julio-Claudian round temples incorporated mosaic flooring into their decorative programs.\textsuperscript{313} These lively, often multi-colored surfaces leave few traces, but may be reconstructed for the Rotunda at Corinth (\#9) and perhaps the round court of the Pantheon (\#50). R. Scranton, who excavated the Rotunda, has suggested that its rough stylobate provided a base for light mosaic

\textsuperscript{305} Both entablatures are remarkably similar in form, even though the Erechtheion incorporates a figured frieze. Baldassarri 1998, 47.
\textsuperscript{306} For Julio-Claudian astragals, see Strong and Ward-Perkins 1962, 24.
\textsuperscript{307} Based on Classical models, this cyma reversa closely resembles examples from the Basilica Paulli and the Forum of Augustus, see Ganzert 1988, 116-7 nos. 3-4.
\textsuperscript{308} Strong and Ward-Perkins 1962, 18.
\textsuperscript{309} The Rotunda’s cyma reversa finds parallels in Julio-Claudian buildings like the Basilica Paulli (see Leon 1971, 173 pl. 67.2; Ganzert 1988, 120 no. 12), the Forum of Augustus (see Leon 1971, 106 fol., 169, 174, and pls. 67.3 and 68.1-2), and the Temple of Castor (see Strong and Ward-Perkins 1962, 22-3).
\textsuperscript{310} Like all Augustan dentils, these are both tall in proportion to their width and closely set. Strong and Ward-Perkins 1962, 24.
\textsuperscript{311} Strong and Ward-Perkins 1962, 18 and 21; Gros 1996a, 146-7. This motif, with Hellenistic origins, is used in the frieze of the Temple of Apollo at Didyma. Gros 1976a, 230; cf. Wegner 1992, 43-4.
\textsuperscript{312} See Chap. IV ‘Stucco and mosaic work.’ No traces of wall paintings or ornamental stucco work have been preserved.
work. Similarly, if La Rocca’s Agrippan date for the layer beneath Hadrian’s floor is correct, its bedding and marble plates suggests that it carried an *opus sectile* pavement like that of the Hadrianic Pantheon.

**Statuary**

Ancient sources, both written and iconographic, attest to the presence of statues in the majority of the Julio-Claudian round temples. As in the late Republic, the choice of statuary was closely tied to the intentions of the temples’ founders and the requirements of the cults. The Imperial cult was celebrated indirectly in the Pantheon (#50) and openly in the Shrine of the Lares Augusti (#23) and the Temple of Roma and Augustus (#4). Aware that Augustus was unwilling to be numbered among the gods in Rome, Agrippa placed his image on the Pantheon’s porch and in its interior, divine statues that may have signaled his future apotheosis. In the Shrine at Ostia, inscribed plaques allude to statues or altars that commemorated the *genius* of Claudius, while outside of Italy, statues celebrating Augustus and Roma in the Temple at Athens equated the Imperial cult with Hellenistic ruler cults and the Greek gods.

Tied to his personal and political propaganda is the statue erected in the Sanctuary of Vesta on the Palatine, which emphasized her allegiance to Augustus. Moreover, if Torelli is correct, a statue of Victoria displayed in the Rotunda at Corinth (#9) may signal his gratitude to Agrippa. Alternatively, according to Scranton, the

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314 Seranton 1951, 24.
315 Ziolkowski (1999, 55; cf. La Rocca 1999b, 280) also compares this pavement to the geometric flooring of Hadrian’s Basilica Neptuni.
316 See Chap. IV ‘Statuary.’
317 Similarly, the base built to honor Attalos I at Pergamon (see #4 above) set a statue of a Roman emperor in a sanctuary of Athena, the city’s protecting divinity.
318 See *InscrIt* XII F 66 = *CIL* I V 213 and #56 above.
Rotunda and its podium may have served as a display gallery for Aphrodite and other Greek statues. 319

The only sculpture preserved from the Julio-Claudian round temples is an altar linked to the Shrine of Hercules (#41). This altar, which depicts a bucranium above the crossing of two plane branches, is stylistically appropriate to the early Julio-Claudian period. Framed by molding, including rows of cyma reversa, the altar’s central motif recalls the Ara Pacis in its realistic modeling and delicate execution of forms. 321

PROPORTIONAL ANALYSIS (Charts V.1-6)

Since Vitruvius was a contemporary of Augustus, his recommendations regarding temple and column design may be more applicable to early Imperial round temples than to their predecessors. Unlike those of Greek tholoi and late Republican round temples, the proportional relationships employed by the Rotunda at Corinth (#9) show a high correlation to Vitruvius’ monopteros. The Rotunda, like his model, has a 10:1 ratio between its column height and lower column diameter, in turn related to its architrave height by 2:1. Moreover, its column height is almost equal to its stylobate diameter. Vitruvius’ relationship between column height and

319 For arguments regarding its attribution, see #9 above.
320 The crown molding is similar to examples found in the Basilica Paulli (Ganzert 1988, 117-18 no. 3) and the Temple of Roma and Augustus (see ‘The entablature’ above), while the base molding recalls cyma reversas employed in the Temple of Apollo in Circo, the Ara Pacis, and the Forum of Augustus (Ganzert 1988, 117-20 nos. 8-10 and 13). The altar’s cyma reversa, with a pendant lotus flower, is more elaborate than that of the Rotunda at Corinth (see ‘The entablature’ above).
321 Characteristic of the Ara Pacis as a whole (see Torelli 1999), elegant modeling is a feature of the bucrania and garland frieze that spans the interior of its altar enclosure. Paris 1979, 264-5; Zanker 1988, 118 fig. 96.
322 But see ‘The entablature’ above (Vitruvius’ omission of modillions).
323 See Chap. IV ‘Proportional analysis.’
324 For references to Vitruvius, see Chap. II ‘Vitruvius on round temple design.’
lower column diameter is also followed by the Temple of Roma and Augustus at Athens (#4).  

In their proportions, the columns of the Rotunda at Corinth approximate Vitruvius’ pycnostyle arrangement, while those of the Temple at Athens come close to his prescriptions for diastyle. Within the Corinthian and Ionic orders however, neither building follows Vitruvius’ guidelines. Moreover, neither shows the 1:2 relationship between their base diameters and intercolumnation widths, which M. Wilson Jones suggests was popular from the Augustan period. Instead, the Rotunda’s base diameter to interaxial width is 1:2, while both it and the Temple enjoy comparable ratios among their base diameters, base heights, and lower column diameters.

The 6:5 rule for Corinthian column heights to shaft heights proposed by Wilson Jones is reflected in the Rotunda, while the Ionic Temple of Roma and Augustus fits his ratio of 10:9. For the relationship between column height and entablature height, Wilson Jones also ascribes a pattern to Corinthian temples, namely of 1:4, which is not picked up by the Rotunda. Interestingly, of the Roman temples he examines, the late Republican round Temples of Hercules Victor \textit{ad portam Trigeminam} (#44) and at Tibur (#64) are farthest from his ideal.

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325 None of the peripteroi or drums are sufficiently well-preserved to be compared to Vitruvius’ ratios. For the relationships applied to drums, see Chap. IV.
326 Wilson Jones (2000, 73) cites examples of this relationship, which he traces back to Hermogenes’ Temple of Dionysios at Teos and Pytheos’ Temple of Athena at Priene, in the Temple of Mars Ultor and the Maison Carrée.
327 Not surprisingly, their capitals, intercolumnations, and interaxial measurements differ significantly.
329 However, like the Temple at Athens, the Rotunda shows an almost 1:1 correspondence between its architrave and frieze.
330 Wilson Jones (1989a) draws conclusions about the proportions of the Corinthian order from nine well-preserved temples in Rome and Latium.
Returning to his concept of the critical dimension, the Perirrhanterion (#51) corresponds closely to the Rotunda in the relationship between its interaxial and external diameters. Beyond these correlations however, the Julio-Claudian round temples have little in common with each other, with Vitruvius or with Wilson Jones, even though as a group, they are more consistent in size than Greek tholoi and late Republican round temples.

IV CONCLUSION

With a rich architectural inheritance from the late Republic, Augustan architects had the freedom to experiment with forms and styles drawn from Italic and Greek sources. At the beginning of his reign, they enhanced buildings little different from their predecessors with lavish materials and decoration. While the Greek sources that inspired these early monuments were varied, by the late Augustan period, architects looked to Athens to provide material for their ornament. Among their models was the Erechtheion, after which the Temple of Roma and Augustus (#4) was styled.

The Erechtheion also inspired the caryatids of Agrippa’s Pantheon (#50). More than for its decoration, the Pantheon is significant as the first building in Rome to honor a living emperor. This type of dedication, attested at Athens in the Temple of Roma and Augustus and at Ostia in the Shrine of the Lares Augusti (#23), becomes widespread in Italy and abroad. Similarly, the styles and types of ornament employed in Augustan architecture.

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332 See Chap. IV ‘Proportional analysis.’ Unlike the Shrine of the Lares Augusti and the Perirrhanterion (#51), both the Rotunda and the Temple fit his criteria of simple ratios between parts (albeit loosely).

333 The total diameter serves as the critical dimension of both buildings.

334 The Rotunda, the Shrine at Ostia and the Perirrhanterion have critical dimensions of close to 5 meters, while the floor space of the Shrine of Hercules (#41), independent of its hemicircle, is comparable to that of the Rotunda.

335 Gros 1976a, 215 and 1996a, 144.
under the Julio-Claudians, including fully developed Corinthian capitals and modillion cornices, have an appreciable influence on the architectural decoration of the Flavian and Antonine periods.337

336 Moreover, the Temple of Mars Ultor employed cyma reversas and egg-and-darts that find parallels in the Erechtheion’s ornament. Strong 1953, 129.
337 See Chap. VI ‘Decorative details.’
CHAPTER VI: THE FLAVIANS THROUGH THE ANTONINES

I INTRODUCTION

After the reign of Nero, the Flavian dynasty returned to the ideals of Augustan Classicism through the conservative building program pursued by Vespasian and his son Titus. Vespasian’s second son Domitian, a more avid builder, completed many of their projects, while, in his own work, he emphasized interiors and light effects previously explored by Nero in his Domus Aurea.¹

Domitian’s monumental legacy is matched by that of Trajan, who inherited the empire from Nerva, to construct buildings of astonishing richness and beauty in Rome. In a sense, J. B. Ward-Perkins suggests, his architecture marks both the “climax and completion” of Augustus’ building program.² His successor Hadrian began a new era of experimentation, evident in his highly original Villa at Tibur and Pantheon (#50), both of which use rounded forms and the latest in building techniques to shape impressive, interior spaces.³

With the empire at its greatest expansion,⁴ Hadrian explored its limits for architectural inspiration more vigorously than any emperor had done before him. This is as evident from the buildings he constructed in Italy as from those that adorned the major provincial cities he visited throughout the Roman world.

II DISCUSSION

The Flavians: (69-96 AD)

¹ Ward-Perkins 1989, 100-4, and below.
² Ward-Perkins 1989, 84.
³ Ward-Perkins 1989, 105-11, and below.
⁴ Boatwright 2000.
Vespasian: (69-79 AD)

Unlike the excesses that characterized Nero’s building program, Vespasian’s was marked by both practicality and foresight. His first project, the rebuilding of the Temple of Jupiter Optimus Maximus, demonstrated his respect for traditional religion, while his second, the Temple of Divus Claudius, established his dynasty as the true successor of the Julio-Claudians. Allying himself with Claudius, he distanced his reign from Nero’s, underscoring this when he began construction of the Flavian Amphitheater on the site of Nero’s artificial lake. Finally, with the Templum Pacis, and possibly his rebuilding of the Perirrhanterion (#51), he established the Flavian period as an era of peace and prosperity.

The Perirrhanterion, Rome (#51)

Erected in the Julio-Claudian period, the Perirrhanterion (#51) was rebuilt under Vespasian. Remains from his reign include two Corinthian capitals and fragments of a curved entablature. The entablature, sculpted on both sides, consists of an inscribed, three-fascia architrave and a frieze course decorated with acanthus spirals and laurel branches. This course, surmounted by a modillion cornice, through its iconography and style, recalls the exterior frieze of the Temple of Apollo Medicus.

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5 See Chap. V.  
7 Rea 1993, 30-5.  
8 Rea 1993, 30-5.  
9 The Templum Pacis was vowed and the Arch of Titus built in response to the capture of Jerusalem in 71 AD, see Santangeli Valenzani 1999, 285-6 and below.  
10 His rebuilding is commemorated on the shrine’s architrave, see #51.  
12 La Rocca 1999a, 79-80; cf. Viscogliosi 1996a, 48-52 and below.
Vespasian may have fulfilled a personal agenda in underlining the connection between these monuments, forged when the shrine was erected above the ancient spring of Apollo.\textsuperscript{12} E. La Rocca suggests that, by rebuilding the Perirrhanterion, the emperor commemorated Apollo for facilitating his and Titus’ victory over the Jews in 71 AD.\textsuperscript{13}

**Domitian: (81-96 AD)**

In addition to the building projects he inherited from Vespasian and Titus,\textsuperscript{14} Domitian undertook significant restorations at Rome. While most of his restoration work was focused on the Campus Martius, including the Temple of Fortuna Huiusce Diei (#38) and the Pantheon (#50), he also may have restored the Tholus of Cybele on the Sacra via (#34). Of his new constructions, many of which may have been designed by Rabirius,\textsuperscript{15} his most famous are the palace on the Palatine, the Forum Transitorium, and the stadium and Odeon in the Campus Martius,\textsuperscript{16} though he also built the ‘Temple of Minerva Chalcidica’ (#48) and a temple to his family, the *gens Flavia* (#40).

**The Temple of Fortuna Huiusce Diei, Rome (#38)**

Under Domitian, the Area sacra di Largo Argentina gained a travertine pavement, while its temples were restored.\textsuperscript{17} To the Temple of Fortuna Huiusce Diei (#38), layers of brickwork and stucco were added to fully incorporate its columns into

\textsuperscript{12} See Chap. V #51.
\textsuperscript{13} La Rocca 1993, 21-2.
\textsuperscript{14} These included the Amphitheater, the Baths of Titus, and the Temple of Vespasian. Ward-Perkins 1989, 73.
\textsuperscript{15} Rabirius is attested as the architect of the Palatine palace. Ward-Perkins 1989, 73.
\textsuperscript{17} Marchetti-Longhi 1970-1971, 9-13.
its first century BC cella wall. At a later date, the Temple received new travertine stairs and a brick base and altar revetted in marble.

The Tholus of Cybele, Rome (#34)

Iconographic evidence has raised the possibility that Domitian’s reign saw the rebuilding of a second round temple. The Tholus of Cybele (#34), dated to the late Republic, has been linked with a denarius more commonly associated with a shrine in the Circus Maximus. This coin shows a four-column temple, raised on a three-step krepis, which carries an entablature, lion antefixes and a finial. Inside the temple is a statue of Cybele holding a spear. Though difficult to determine its shape from the coin, the temple has been interpreted as round, based on its similarities to coin depictions associated with the ‘Temple of Minerva Chalcidica’ (#48).

More substantial than the coins are brick foundations found near the later Basilica of Constantine and two terracotta reliefs discovered between the Temple of Antoninus and Faustina and the ‘Temple of Romulus’ (#52). These reliefs show a goddess carrying a patera and a long spear, while sitting on a high-backed throne flanked by recumbent lions. The group appears on an oared boat.

Present on the Domitianic coin, the spear and lions are common attributes of Cybele celebrated on later coinage, including a contorniate minted in honor of Diva
Faustina. This coin, which depicts Cybele seated inside a rectangular temple fronted by steps, though occasionally linked with her Tholus, is better associated with the Temple of Magna Mater on the Palatine. Similarly, the Palatine temple may be represented on the Haterii relief in the guise of a statue of Cybele. Like Faustina’s coin, this relief, together with an Antonine medallion that shows the Shrine of Hercules (#41), has been identified incorrectly with her Tholus on the Sacra via.

**The Pantheon, Rome (#50)**

The fire of 80 AD damaged or destroyed several significant buildings in the central Campus Martius. Among them were the Pantheon (#50) and the Saepta Iulia, constructed by Agrippa as part of his large-scale building program. Domitian’s restoration of both buildings is attested by the sources, and in the case of the Pantheon, by physical remains. These remains include an upper bedding layer found beneath the rotunda of Hadrian’s Pantheon. Its similarity to the Agrippan layer suggests that Domitian’s rebuilding, obliterated by lightning under Trajan, adopted the Pantheon’s original plan.

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26 Küthmann and Overbeck 1973a, 27-8 no. 44; Vermaseren 1977, 37.
28 The building’s shape and steps are prominent features of the Palatine temple. See Hülser 1895b, 28, for the role the stairs may have played in the Ludi Megalenses (Lucr. 2.618 fol., Cic. *Har. Resp.* 24, and Liv. 36.36.4-5).
29 For an analysis of the buildings represented on the Haterii Relief, see Richter 1885, 418-23, and Castagnoli 1941, 59-69.
30 It is unreasonable to suppose, like Castagnoli (1941, 67), that Cybele was a “filler” used in response to *horror vacui*.
31 See #41 below.
34 See Chap. V #50.
36 It is possible that the stairs (#50 and Chap. V; cf. Wilson Jones 2000, 182) and the fragments of marble revetment (#50 and Gruben and Gruben 1997, 55) found beneath Hadrian’s pronaos are of Domitianic date.
Dominian’s so-called Temple of Minerva Chalcidica (#48) is known from a variety of sources, both written and iconographic. It is only within recent years however that these pieces of evidence have been taken together to locate and describe
the building. The Regionary Catalogues place it in the Campus Martius,\(^{38}\) while a later source defines its position between the Temple of Isis and Serapis and the Pantheon (#50).\(^{39}\) An early Medieval church which preserves its name, S. Maria
sopra Minerva,\(^{40}\) may also suggest its location, though it is only with new work on the Severan Marble Plan that the building has been sited accurately. In addition to
placing it within its topographical context, the Plan indicates the building’s shape and scale, while a coin minted under Domitian\(^{41}\) and a drawing by the Renaissance artist,
Onofrio Panvinio,\(^{42}\) may show its elevation.

Plate 31 of the Marble Plan has been restored to illustrate the Campus Martius from the Porticus Divorum\(^{43}\) to the Saepta Iulia. C. Hülsen identified a round
building, located between the Divorum and the Serapeum, as a fountain. He based his hypothesis on a fragmentary inscription, \(\text{[VACHR]}[\text{---}][\text{A}]\), above the building, which he restored as \(\text{lavacrum}\) or ‘circular fountain.’\(^{44}\) E. Sjöquist refined Hülsen’s theory, emending the inscription to \(\text{[LA]}\text{VACHR}[^\text{VM}]\text{[A]}\text{[GRIPPAE]}\) in reference to Ammianus Marcellinus’ appellation of the Baths of Agrippa.\(^{45}\)

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\(^{38}\) Curios. urb. p. 125 VZ I.

\(^{39}\) Mir. 22, 50 VZ III (see #48).


\(^{41}\) See #48.

\(^{42}\) Cod. Vat. Lat. 3439 f. 25r.

\(^{43}\) The Divorum was at least begun, if not completed by Domitian. Coarelli 1995a, 19-20.

\(^{44}\) Hülsen (1903, 39-46; cf. Petersen 1903, 320) erroneously attributed to it the \(\text{pinea}\) or gilded pine cone on display in the gardens of the Vatican.

\(^{45}\) Amm. 29.6.17; see Ghini (1996b, 40-2) for more common ways of referring to the Thermae Agrippae. This inscription was first interpreted by G. Bellori (1673, 23; cf. Sjöquist 1946, 99-105) as \(\text{[LA]}\text{VACHR}[^\text{VM}]\text{[A]}\text{[GRIPPINAE]}\).
Through the discovery of an additional fragment, which reads MI, both Hülsen’s and Sjöquist’s readings have been proven incorrect. More likely is MI[NE]RVA CHA[LCIDICA], wherein her epithet may suggest links to a cult of Athena in Chalkis\(^{46}\) or the Chalcidicum, equivalent to the Atrium Minervae near the Curia.\(^{47}\) Based on the inscription, L. Cozza concluded that the building represented on the Plan was a temple to Minerva Chalcidica.\(^{48}\) A fourth century source\(^ {49}\) links Domitian with a temple dedicated to this goddess in the Campus Martius, while Pliny records the existence, though not the location, of a temple of Minerva constructed by Pompey in 62 BC.\(^ {50}\) Domitian’s temple may have been a restoration of Pompey’s or more likely, a new foundation.\(^ {51}\)

The building illustrated on the Severan Marble Plan is highly unusual. Set within a circular precinct, it is approached by four sets of steps, linked by niches, while it includes a rectangular object that may represent a statue base. This depiction has been related to Panvinio’s drawing, based on a work of Pirro Ligorio,\(^ {52}\) which shows half of a round temple with an external peristasis of twenty-four columns, a cella wall with four entrances, and an internal colonnade of sixteen columns. The subject of the drawing is identified in its margins as the Temple of Isis and Serapis or of Sol.\(^ {53}\)

In addition to its label, elements of the building’s plan speak against associating the drawing with Domitian’s dedication to Minerva Chalcidica. While the

\(^{46}\) de Caprariis 1996, 255; vs. Lundström 1929, 369, and Schürmann 1985, 14. A round building was also used to honor Athena at Magnesia on the Meander (#18), see ‘The Antonines’ below.


\(^{48}\) Carettoni et al. 1960, 99.

\(^{49}\) Chronogr. a. 354 p. 146 M.

\(^{50}\) Plin. nat. 7.97.


\(^{52}\) Cod. Paris. f. 309.

\(^{53}\) Castagnoli 1952, 100-1.
Marble Plan shows four stairs, possibly suggesting four entrances, it does not include columns, which are normally depicted for peripteral temples. Moreover, the drawing omits the stairs and the rectangular base, for which L. Richardson’s suggestion, namely that they were removed as part of Septimius Severus’ restoration of the building, is purely hypothetical. The one element that can support a connection between the Plan and the drawing is their comparable size, which may be coincidental.

Like the drawing, a coin issued under Domitian, ca. 94 AD, has been associated with this building. It depicts a round temple on a three-step podium with Corinthian or Composite columns supporting a three-fascia architrave, a flat roof, and florette- and globe-shaped acroterial sculpture. A statue of Minerva, shown with a helmet, spear and round shield, appears inside the temple. This statue type is depicted on other Domitianic coins and recalls a statue of Minerva found in the vicinity of S. Maria sopra Minerva. While the statue may be associated with Domitian’s building, the coin is problematic in that it depicts columns and a flat roof, which makes the temple appear more rectangular than round.

Both the drawing and the coin would support a reconstruction of this building, namely with a stepped podium, cella, colonnade, and roof, which is almost

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54 On the same plate, the Divorum and Serapeum are both depicted with colonnades.
55 Richardson, Jr. 1992, 256.
56 The drawing includes foot measurements, see Castagnoli 1952, 100-1.
57 This forms part of a series of five coins minted by Domitian to celebrate temples constructed during his reign. Also included are depictions of the Temples of Jupiter Capitolinus, Cybele, Jupiter Victor, and Serapis. Hill 1989, 29.
58 Cf. Schürmann 1985, 14 pl. 16c (comparable gem).
59 Minerva is frequently shown on Domitianic coinage in her capacity as warrior goddess, both alone and with Domitian, see BMCEmp II 363 nos. 296-7, 370 no. 332, 381 no. 376, 386 no. 395, and 389 no. 408.
61 On coins, round buildings are usually shown with conical roofs, see #57 for examples illustrating the Temple of Vesta in the Roman Forum.
62 In order to reveal the cult statue, cella walls may be absent from the coin depiction.
incompatible with the depiction on the Marble Plan. Closer parallels to the Plan are provided by fountains, which share its round form, sets of steps, niches, and central ‘base’ or fountainhead. In Flavian examples found near the Lacus Iuturnae, basins, recalling the outer circle on the Marble Plan, support stepped structures down which water once cascaded. Moreover, the building known as ‘Minerva Chalcidica’ may follow lacus, as well as temples, by including a statue of the god to whom it was dedicated.

Though comparable in form, it should be noted that preserved fountains are much smaller than the building on the Marble Plan. Funerary monuments, known for reflecting other architectural types, may preserve both the form and scale of the round building. Among them are a tomb shown on an incised marble plan discovered on the via Labicana and a funerary monument known as S. Maria Capua Vetere. In plan, these examples combine a square base with a round core encircled by four niches, while in the elevation of S. Maria Capua Vetere, this plan translates to three levels: a base, an intermediary level with statue-filled niches, and a round monopteros. This elevation is corroborated by the commemorative monuments of the Julii at Glanum, ca. first century BC, and of C. Memmius, which forms part of the Domitianic forum at Ephesos.

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63 Lugli’s reconstruction (1938, 110-2), though closer to the Marble Plan, is pure speculation based on Sangallo’s drawing of the ‘Temple of Portunus’ at Portus. Sjöquist 1946, 112-3 figs. 36-7.
65 This is usually interpreted as a circular precinct wall, see above.
66 The lacus Ganymedis and lacus Orphei serve as good examples. Aronen 1996a, 168; Coarelli 1996j, 171.
67 Tombs of this type may copy small fountains or their larger prototypes, if such buildings existed (cf. Tammisto 1989, 245).
68 Hülsen 1890, 52-60; Wilson Jones 2000, 72 figs. 4.4-4.5.
70 Rolland 1969; von Hesberg 1992, 121 and 139.
71 As C. Memmius was Sulla’s uncle, this building should be dated to the 2nd c. BC. Wiplinger and Wlach 1995, 79; vs. Weber 1990, 118-9 and cat. M24-6 (Augustan period).
Based on these parallels, it is probable that Hülsen and Sjöquist were correct after all in describing the round building on the Marble Plan as a fountain. This would suggest that the coin commonly linked to it represents an unknown temple of Minerva. Even without the coin evidence in support of its Domitianic date, the emperor’s well publicized devotion to the goddess\footnote{See Giard 1981a, 203-32, and 1981b, 233-45.} makes it likely that the fountain, certainly earlier than the Severan Marble Plan, provided him another means of promoting his patroness and protector.\footnote{Schürmann 1985, 14-5.}

**The Temple of the Gens Flavia, Rome (#40)**

Domitian converted the *domus* of his family, the *gens Flavia*, into a Temple commemorating its divinized members (#40).\footnote{Platner and Ashby 1929, 247; Rodríguez Almeida 1986, 57; Candilio 1995, 201; Coarelli 1995i, 368. Richardson, jr. (1992, 181) suggests that the *domus* may have been leveled to make room for the Temple. For the Sabine associations of the site, which may have influenced Domitian’s choice, see Torelli 1987, 570-2, and Paris 1994g, 78.} The Temple’s dedication can be dated to the last years of his reign, between the death of Titus’ daughter Julia in 89 AD,\footnote{See #40. Torelli 1987, 563; Coarelli 1995i, 368.} whose ashes were interred in the Temple,\footnote{PIR F 426.} and Domitian’s death in 96. In addition to Julia’s, the ashes of Domitian\footnote{See #40. Rodríguez Almeida 1986, 57-8; Richardson, jr. 1992, 181; Candilio 1995, 201; Coarelli 1995i, 368.} and most probably of Vespasian and Titus were contained in this monument,\footnote{See #40. Martial and Statius (#40 and see below) also evoke the temple as a symbol of Rome’s *aeternitas*. Platner and Ashby 1929, 247; Richardson, jr. 1992, 181.} praised by contemporary authors for its size and splendor.\footnote{Martial and Statius (#40 and see below) also evoke the temple as a symbol of Rome’s *aeternitas*. Platner and Ashby 1929, 247; Richardson, jr. 1992, 181. Martian and Statius, in particular, commend the Temple as a reflection of the heavens.\footnote{Mart. *epigr.* 9.1.8-10, 3.12, and 34.1-2; Stat. *silv.* 4.3.19 and 5.1.240-1.} Based on their testimony, modern scholars have concluded that it was both round and domed.\footnote{Altmann 1906, 88; Platner and Ashby 1929, 247; Richardson, jr. 1992, 181.} The Pantheon (#50), often considered a monument to the...
gens Iulia, has been taken as a precedent for this Temple in terms of its function, form, and celestial connotations.\textsuperscript{82}

Beyond describing the symbolic content of the Temple, the sources confirm its date, if simply by the coincidence that Martial’s and Statius’ poems which extol it can be dated to 95-96 AD,\textsuperscript{83} and provide some indication of its location. Iconographic and architectural finds further define the Temple’s location and allow for its reconstruction. Suetonius notes that Domitian’s birthplace, namely his family domus, is sited in Regio VI \textit{ad Malum Punicum}.\textsuperscript{84} This is confirmed by the Regionary Catalogues, which locate the Temple of the Gens Flavia near that of Quirinus, the Horti Sallustiani and the Baths of Diocletian.\textsuperscript{85} In addition, a \textit{cippus}, found in the vigna Sadoleti,\textsuperscript{86} and a water pipe, uncovered near the intersection of via XX Settembre and via Firenze,\textsuperscript{87} both name T. Flavius Sabinus,\textsuperscript{88} Vespasian’s brother, in whose domus Domitian was probably born.\textsuperscript{89}

Also near this spot on via Firenze were found several highly significant reliefs, whose date, refined workmanship, material, and subject matter suggest that they formed part of the Temple’s decorative scheme.\textsuperscript{90} These Pentelic marble reliefs, excavated from an area to the north of the exedra of the Baths of Diocletian,\textsuperscript{91} show

\begin{footnotesize}
\begin{enumerate}
\item Cass. Dio 53.27, but see Chap. V #50 as Agrippa’s Pantheon was not domed and may not have been round.
\item Martial’s \textit{epigrammata} IX and Statius’ \textit{silvae} IV and V were written in late 95-early 96 AD. Torelli 1987, 563. Since both they and the Temple were vital to conveying Domitian’s dynastic message, Rodriguez Almeida (1986, 57-8) proposes that the Temple’s \textit{dies natalis}, commemorated by the poems, was Domitian’s birthday, 24 October.
\item Suet. \textit{Dom.} 1.1.9, and see #40.
\item See #40, and Paris 1994c, 16.
\item \textit{CIL} VI 29788: \textit{Inter duos / parietes / ambitus privat(us) / Flavi Sabini}. The vigna was sited somewhere in the area defined by S. Andrea (whose construction led to the discovery of the water pipe), via XX Settembre, via Nazionale, and via delle Quattro Fontane. Rodriguez Almeida 1986, 56; Paris 1994c, 23.
\item Tac. \textit{hist.} 3.69; cf. \textit{PIR} F 352.
\item Coarelli 1995i, 368.
\item For a full description of the fragments, see Paris and Gazda 1994.
\item Paris 1994b, 9, and 1994c, 23; Coarelli 1995i, 368.
\end{enumerate}
\end{footnotesize}
both sacred and historical scenes that, as interpreted by R. Paris, have particular relevance for Domitian’s dynastic monument.\footnote{Paris 1994g, 76-83; cf. Torelli 1987, 570-2.} Clearly recognizable among the relief fragments is the head of a \textit{flamen} against the backdrop of a temple, whose pediment shows figures pertaining to the founding legends of Rome.\footnote{Torelli 1987, 569.} Paris has identified the temple as that of Quirinus, or Romulus by his Sabine name, and sees the historical reliefs representing soldiers, Vespasian, and Victoria as an allusion to the Flavians’ success in the Civil War of 68-69 AD.\footnote{Paris 1994f, 40-1.} She attributes the fragments to an altar-precinct laid out like the \textit{Ara Pacis Augustae},\footnote{Paris 1994g, 76-9; Marconi 1994, 84-91; cf. Paris 1994c, 17 (analogous function).} while Torelli and Coarelli associate the reliefs with an arch marking the entrance to the Temple.\footnote{Torelli 1987, 569; Coarelli 1995i, 368.}

A rare Roman sestertius minted under Domitian in 95-96 AD shows a decastyle temple set within two precincts, the first of which is dominated by an entrance arch.\footnote{Torelli 1987, 565-7; Paris 1994c, 26-8; Candilio 1995, 198-9; vs. Haberey (1960, 292), who interprets the coin image as a temple resting on a two-tiered substructure.} Another Domitianic coin, with a disproportionately large Jupiter seated inside a temple, may illustrate the elevation of this monument,\footnote{See #40 and Coarelli 1995i, 369; vs. Paris 1994c, 26.} while a relief found in the Forum of Trajan, which shows a decastyle temple behind a procession of two \textit{togati} and four \textit{lictores}, may depict its inauguration.\footnote{For a full description, see Ambrogi 1985, 104-8; cf. Torelli 1987, 564, Candilio 1995, 198-9, and Coarelli 1995i, 368. Paris (1994c, 28-30) proposes that one \textit{togatus}, identified by Thorwaldsen as Trajan, began as Domitian but was remodeled when he suffered \textit{damnatio memoriae}.}

Two separate sets of remains have been attributed to the Temple of the Gens Flavia.\footnote{A third set described by Flaminio Vacca (et al. 1704, 32), which pertain to the Shrine of Venus in the horti Sallustiani (#55), has been incorrectly identified with this Temple, see Torelli 1987, 563, Richardson, jr. 1992, 181, and Coarelli 1995i, 368.} The first, found beneath the Caserma dei Corazzieri, consists of a podium
and the wall of a nymphaeum decorated with richly colored mosaics.\textsuperscript{101} Adjacent to
the ‘Planetario’ of Diocletian’s Baths, the second forms part of a much larger rectangular precinct that stretches into the Piazza Termini, where traces of a substantial rectilinear podium have been uncovered.\textsuperscript{102} Both fall within the area defined by Suetonius and the find-spots of the \textit{cippus}, water pipe, and reliefs. Moreover, as both are of Flavian date, either podium may realistically pertain to the Temple.

Based on the evidence of the iconographic sources and physical remains, it seems impossible that the Temple of the Gens Flavia was round. Instead, Martial’s and Statius’ remarks regarding its celestial symbolism should be interpreted as referring to the apotheosis of the deceased interred inside it rather than to its form.\textsuperscript{103}

**Round temples rebuilt during the Flavian period:**

**The Temple of Vesta, Forum, Rome (#57)**

Aurei of Vespasian and Domitian may point to a restoration of the Temple of Vesta in the Forum (#57) during the Flavian period.\textsuperscript{104} Like the Neronian issues, which commemorated its rebuilding after the fire of 64 AD, they show a round temple on a stepped podium with Ionic columns and a domed roof. Vesta appears twice, on the apex of the roof as well as inside the temple, to aid in its identification.\textsuperscript{105} In

\textsuperscript{101} Rodríguez Almeida 1986, 56; Torelli 1987, 568-9; Paris 1994c, 24-5; Coarelli 1995i, 369; de Vos 1996, 82. The Caserma is sited on via XX Settembre to the south-west of S. Susanna, a location which roughly corresponds to that of the \textit{Statua Mamuri} mentioned in the Regionary Catalogues. See #40 and Paris 1994c, 18.

\textsuperscript{102} Candilio 1995, 194-200.

\textsuperscript{103} See Torelli 1987, 563, and Chapter II ‘Cosmic implications of the round form?’

\textsuperscript{104} See #57. These issues do not, as Scott (1999b, 127) tentatively suggests, represent the Shrine on the Palatine, see Chap. V #56.

\textsuperscript{105} See Chap. V #57.
addition to their possible restoration of the Temple, Domitian restructured the Palatine ramp and began work on the Atrium Vestae.\textsuperscript{106}

**Trajan: (98-117 AD)**

Like Domitian’s, Trajan’s building program comprised both the restoration of significant monuments at Rome, including the Temple of Vesta in the Forum (#57), and new construction. Among his most important new buildings were his baths, forum and markets, designed by Apollodorus of Damascus.\textsuperscript{107}

**The Temple of Vesta, Forum, Rome (#57)**

In addition to completing Domitian’s restoration of the Atrium Vestae,\textsuperscript{108} Trajan undertook an ambitious rebuilding of her Temple (#57).\textsuperscript{109} To commemorate his reconstruction, illustrated on the contemporary Uffizi and Lateran reliefs,\textsuperscript{110} he reissued Cassius’ first century BC coinage.\textsuperscript{111} Like the coins, these reliefs show the Temple with an Ionic peristasis, suggesting that its order remained constant from the Republican period. On the reliefs, the Ionic columns are supported on plinths attached to a high podium. Grillwork fills the temple’s intercolumnations, while its interior is accessed by steps leading to a pair of doors. Its roof consists of a shallow

\textsuperscript{106}Scott 1999b, 127. The ramp ceased to be a link between the Forum and the Palatine with Trajan’s completion of the Atrium Vestae (see below). Steinby 1993, 149-59.

\textsuperscript{107}Ward-Perkins 1989, 84-5.

\textsuperscript{108}Trajan’s work on the Atrium Vestae is suggested by contemporary brick stamps found throughout the eastern part of the building and denarius minted under Trajan and Plotina, which depict the head of Vesta. Bloch 1936, 217-22. For the plan and building phases of the Atrium, see Bloch 1936, 216-25, Lanciani 1967, 228-34, Scott 1993b, 174-5, and Coarelli 1995k, 100-5.

\textsuperscript{109}Trajan, or the Senate acting on his behalf, may also have restored the nearby Regia. Scott 1999a, 189-92.

\textsuperscript{110}However, Cody (1973, 48) dates the Uffizi relief to the mid-first century BC, while the Lateran relief has been linked by its excavator, Santa Maria Scrinari (1968, 189) with the base of the equestrian statue of Marcus Aurelius, ca. 179 AD. Beyond their style, both reliefs show Ionic columns (see below), which date them to the Trajanic period or earlier, see Chap. VII #57 (Corinthian columns of the Severan period).

\textsuperscript{111}See Chap. IV #57.
cupola with a knob finial. The temple is framed by a tree and an Ionic portico on both reliefs and by four Vestals on the Lateran relief.

The reliefs probably inspired Renaissance drawings by an anonymous artist (Anonymous Destailleur), G. A. Dosio, and G. da Sangallo. In each of these, a round temple with Ionic columns, grillwork, and a cupola or conical roof is shown raised on a podium. In most cases, a tree and an Ionic portico appear behind the temple. R. Scott has associated the tree on the reliefs and drawings with the *lucus Vestae* located at the base of the Palatine and the portico with a series of rooms built by Trajan.

**Hadrian: (117-138 AD)**

To Hadrian’s reign can be attributed some of the greatest advances in round temple building since the late Republic. While the Pantheon (#50) ranks among his finest accomplishments, he also built round shrines or temples in his villa at Tibur (#63 and 65), Asia Minor (#27 and 59) and England (#8). Clearly fond of the round form, Hadrian even employed it for his mausoleum, an elaborate version of the Mausoleum of Augustus.

**The Pantheon, Rome (#50)**

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112 Richardson, jr. (1992, 413) speculates that the knob may represent a statue base.
113 A 19th c. drawing by Canina is similar, see #57.
114 Cic. *div.* 145. Scott (1993a, 15-6, and 1999c, 129-30) reaches this conclusion based on analogies with scenes shown on medallions of Hadrian and Antoninus Pius and on remains of a pit discovered by Boni (1900, 172-83). He suggests that the reliefs commemorated the flowering or planting of a tree.
115 Scott 1999b, 127. Stucchi (1959, 14, 25, and 90-1) identifies the Ionic portico shown behind a temple to Vesta on the first century AD Sorrento Base with the Temple of Divus Iulius, see Chap. V #56.
116 His other major projects include the completion of the Temple of Divus Traianus in Trajan’s forum and the Temple of Venus and Roma on the Velia, Ward-Perkins 1989, 121 and below.
117 Medallions of Hadrian, which illustrate the Shrine of the Penates at Lavinium (#17; cf. Scott 1999c, 129), may suggest that it was restored or rebuilt during his reign. For the full extent of his building projects, see Boatwright 2000.
118 Wilson Jones 2000, 80.
Hadrian’s rebuilding of the Pantheon (#50), ca. 118-128 AD,\textsuperscript{119} was one of the most significant architectural projects of his reign. With much of the original building destroyed in 110 AD,\textsuperscript{120} his architects\textsuperscript{121} were free to construct a new Pantheon on its foundations. Unlike Agrippa’s building,\textsuperscript{122} his consisted of three parts: a pronaos, an intermediate block, and a rotunda. The pronaos was preceded by an entrance court, framed by porticoes, which aligned the Pantheon with neighboring buildings.\textsuperscript{123} A further set of buildings behind the rotunda, including the Saepta Iulia and the Basilica Neptuni,\textsuperscript{124} masked its curved exterior. By externally de-emphasizing its round form, they, like the Pantheon’s court, porch and intermediate block, helped to maximize its internal impact.\textsuperscript{125}

The pronaos of Hadrian’s Pantheon follows classical precedents in its design.\textsuperscript{126} Resting on a podium accessed by front and side steps,\textsuperscript{127} it displays eight Corinthian columns beneath an entablature and a triangular pediment.\textsuperscript{128} Four rows of columns fill its depth to create three aisles, two of which terminate in semi-circular niches and the third, in the rotunda’s entrance.\textsuperscript{129} Agrippa’s dedicatory inscription

\begin{itemize}
  \item \textsuperscript{119} See #50 (brick stamps).
  \item \textsuperscript{120} Oros. \textit{hist.} 7.12.5, Hier. \textit{chron. a. Abr.} 2126, and above.
  \item \textsuperscript{121} Strong stylistic similarities between late Trajanic and early Hadrianic buildings suggest that Apollodorus was involved in some of Hadrian’s projects. While these may have included the Pantheon, he did not take part in Hadrian’s designs for the Temple of Venus and Roma (cf. Cass. Dio 60.4.3) nor his villa at Tibur. Heilmeyer 1975, 316-47; MacDonald 1982, 129-37; Rasch 1985, 119; Wilson Jones 2000, 192 and 212.
  \item \textsuperscript{122} See Chap. V #50. Both Beltrami’s and La Rocca’s reconstructions suggest that Agrippa’s Pantheon had two parts: either a rectangular cella and porch or a rectilinear porch and circular court.
  \item \textsuperscript{123} MacDonald 1976, 27. The so-called ‘Arcus Pietae’, found inside the court, is likely to have been a monumental statue base, vs. de Fine Licht 1966, 25-9, and Kleiner 1992, 253-5 (reliefs).
  \item \textsuperscript{124} Hadrian rebuilt both buildings. Saepta Iulia: \textit{Hist. Aug. Hadr.} 19.10, and Gatti 1999, 228; Basilica Neptuni: de Fine Licht 1966, 147-53, and Boatwright 1987, 48-9. The Basilica is connected to the rotunda by vaulted chambers, which may have served as buttresses for its dome.
  \item \textsuperscript{125} MacDonald 1976, 62, and 1982, 111-8.
  \item \textsuperscript{126} Gros (1996a, 176; cf. Cic. \textit{orat}. 3.180) suggests that the traditional porch allows the domed drum, a form more common in bath buildings, to be understood as a sacred space.
  \item \textsuperscript{127} Its front steps overlay an earlier set attributed to Agrippa or Domitian, see #50, above, and Chap. V.
  \item \textsuperscript{128} For a plan of this pediment discovered on the grounds of the Mausoleum of Augustus, see Chap. V #50.
  \item \textsuperscript{129} The porch’s bronze drop-vault ceilings were stripped by pope Urban VIII. MacDonald 1982, 98.
\end{itemize}
restored by Hadrian appears on the frieze course,\textsuperscript{130} while the positions of clamp holes suggest that an eagle and a\textit{corona civica} figured on the pediment.\textsuperscript{131} F. Coarelli has proposed that the eagle symbolized the apotheosis of Augustus,\textsuperscript{132} with whom Hadrian may have sought to associate himself by rebuilding the Pantheon.\textsuperscript{133}

The entablature, which runs beneath the pronaos’ pediment and roof,\textsuperscript{134} links it with the intermediate block. Its pavement serves as another visual link, though with the rotunda, as its geometric pattern continues into the rotunda’s interior.\textsuperscript{135} However, the intermediate block is the principal means of transition between the pronaos and the rotunda. Nearly as wide as the former and as high as the latter, it serves as the back wall of the pronaos and adapts to the curved form of the rotunda.\textsuperscript{136} The porch’s statue niches are embedded in the intermediate block,\textsuperscript{137} while pilasters flanking the niches visually continue the lines of the porch columns to the sides of the intermediate block as well as to the walls flanking the rotunda’s entrance.\textsuperscript{138} Between the pilasters are reliefs depicting sacrificial implements, garlands and candelabra\textsuperscript{139} which, together with the statues of Augustus and Agrippa that may have stood in the niches,\textsuperscript{140} fill out the intermediate block’s decorative scheme.\textsuperscript{141}

\begin{footnotes}
\textsuperscript{130} Other than the Temple of Trajan, Hadrian did not ascribe his name to buildings he built or restored \textit{(Hist. Aug. Hadr.} 19).  
\textsuperscript{131} The\textit{corona civica} may reflect an honor granted Augustus by the Senate \textit{(R.Gest.div.Aug.} 34.2; Cass. Dio 53.16.4; Plin. \textit{nat.} 16.3-4).  
\textsuperscript{132} Suet. \textit{Aug.} 97.  
\textsuperscript{133} de Fine Licht 1966, 201-2; MacDonald 1976, 84.  
\textsuperscript{134} de Fine Licht 1966, 78. A fragment of the entablature, drawn by B. Peruzzi \textit{(Uffizi Arch.} 541 verso; cf. Bartoli 1914-1922, vol. 2: pl. 137 fig. 225), may be preserved, cf. Lanciani 1881, 269.  
\textsuperscript{135} de Fine Licht 1966, 38. For a description of the floor, see below and de Fine Licht 1966, 100-1.  
\textsuperscript{136} de Fine Licht 1966, 59; Ziołkowski 1999, 58.  
\textsuperscript{137} Additionally, the intermediate block contained two stairways, which provided access to the upper rooms and the rotunda’s roof. MacDonald 1976, 28, and 1982, 99.  
\textsuperscript{138} For an analysis of the pilasters flanking the entrance, see Wilson Jones 2000, 205-6.  
\textsuperscript{139} For the sacrificial implements, see Honroth 1971, 85 no. 86a-b.  
\textsuperscript{140} Cass. Dio 53.27.  
\textsuperscript{141} Herdejürgen 1990, 123-31; Ziołkowski 1999, 58.  
\end{footnotes}
Although the foundations of the pronaos and the intermediate block are continuous with those of the rotunda, some features of the Pantheon have caused scholars to doubt the cohesiveness of its plan and construction. Most notably, the brick fabric of the intermediate block and the rotunda is only bonded to a quarter of their total height. Further, the intermediate block displays a false pediment at a level visually more appropriate for the pronaos’ pediment, as well as two cornices which line up with the rotunda, but not with the pronaos.

P. Davies, D. Hemsoll and M. Wilson Jones have proposed an appealing solution. They suggest that the fifty foot shafts intended for the pronaos were either lost in shipment or became impossible to acquire after construction of the Pantheon had begun. When the news was relayed, its architects adjusted the pronaos and intermediate block to suit more readily available forty foot shafts, while continued work on the rotunda resulted in the incomplete bond. Were the original design carried out, the pronaos and the intermediate block would have shared a roof and the cornice of the pronaos would have formed the second cornice of the rotunda.

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143 For a summary of previous scholars’ views, see de Fine Licht 1966, 186-9.
144 de Fine Licht 1966, 85-7; Ziolkowski 1999, 58.
145 Wilson Jones (2000, 206) suggests that this compromise (see below) may have been inspired by the Propylaea to the Athenian Acropolis.
146 For additional incongruities, see Davies et al. 1987, 134-40, and Wilson Jones 2000, 203-6.
148 Fifty foot monoliths were used for the Column of Antoninus Pius, Trajan’s Baths, and the Temple of Divus Traianus. As Trajan’s adopted son, it seems reasonable that Hadrian, faced with a limited supply, used the larger and more impressive columns for the Temple of Trajan in preference to the Pantheon. Wilson Jones 1999, and 2000, 208-10.
149 Several shipwrecks, including that at Mahdia, include fifty foot columns among their cargo. Wilson Jones 2000, 209.
150 Forty foot monoliths appear in the Temples of Vespasian, Antoninus Pius and Faustina, and Saturn, and the Column of Phocas. By opting for shorter columns, Hadrian was able to employ granite from the prestigious Mons Claudianus and monoliths, which were considered more impressive than columns made of drums. Wilson Jones 1999, and 2000, 211-2.
The rotunda with its vast cupola serves as the culmination of Hadrian’s Pantheon. Its foundations consist of a concrete ring from which a cylindrical wall rises in three tiers. Each tier is differentiated by exterior cornices and interior openings linked by vaults and arches. A cupola springs from the top of the wall, though its base is concealed on the exterior by the drum, taller externally than internally, and by a series of step rings.

The first level or tier of the rotunda’s interior is marked by an undulating surface of exedrae opening inwards alternating with aediculae, which in turn mask chambers opening outwards.152 Sited along the Pantheon’s north-south axis, are the two main exedrae: the rotunda’s entrance and a large apse, which may have housed a tribunal of Hadrian.153 Pairs of Corinthian columns flank the main exedrae and front the remaining six exedrae and eight aediculae.154 The exedrae and aediculae displayed statues155 against a marble veneer that corresponded to the rotunda’s paving.156

The second tier of the drum, framed by entablatures,157 includes a plinth as the base for a series of pilasters and vertical bands embedded with circles and squares.158 In-between sets of four pilasters are windows that let light from the rotunda into floorless rooms above the exedrae and aediculae.159 Besides the windows, the decoration of this tier corresponds with the columns of the lower tier and the coffers

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152 The chambers, which are accessed from outside the Pantheon, may have served as storage areas, though their primary functions were to lighten the load-bearing wall and speed the curing of the concrete during construction. MacDonald 1982, 100-3; Wilson Jones 2000, 187.
154 This arrangement is reminiscent of the late 1st c. AD courtyard of the Temple of Jupiter at Baalbek. Sear 1982, 247-8
155 See ‘Statuary and reliefs’ below.
156 de Fine Licht 1966, 71 and 84.
158 Though stripped of its decoration in 1747-1752, a segment of this tier was reconstructed by A. Terenzio based on descriptions and Renaissance drawings (Cod. Chigi P. vii.9; for existing fragments, see Micheli 1984, 55-64).
159 MacDonald 1982, 105-9.
of the cupola on the cardinal axes. Similarly, the rotunda’s floor is aligned with the
drum and cupola on the north-south axis. Their use of the same, brightly colored
stones helps to establish a rhythm between the floor and the two tiers, which enhances
the climax achieved by the Pantheon’s dome.

Rising from the second tier, the dome, a hemisphere atop a cylinder, culminates in an oculus. The oculus worked together with the bronze sheathing that once plated the dome’s coffers to illuminate the rotunda. While its round form may have inspired Cassius Dio’s comparison of the Pantheon to the heavens, the dome is more likely to have reflected Roman interest in symmetry and perfect numbers than the celestial vault. Even in the absence of cosmic imagery, the Pantheon, with its richly ornamented space shaped by unprecedented feats of engineering, successfully conveys Hadrian’s Imperial message.

The Temple of Zeus Asklepios Soter, Pergamon (#27)

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160 Wilson Jones 1999, and 2000, 189 and 194. Wilson Jones (2000, 192) cites the Porta dei Leoni and the Porta dei Borsari at Verona, the nymphaeum at Miletus, and the Library of Celsus at Ephesos as example of monuments whose lower and upper tiers are partially aligned.


162 The same relationship between drum and dome appears in the Domitianic bath building at Albano and the ‘Tor de’ Schiavi. Wilson Jones 2000, 184, cf. Vitruvius 5.10.5 (bath buildings) and Gros 1996a 176.

163 Constantius II removed the bronze plates, leaving the bronze ring of the oculus, in 663 AD (LPD 1.149 and 343 and VZ 2.251 and 264). The lead plates which replace bronze on the exterior of the dome date to the papacy of Gregory III (731-741 AD; LPD 1.149 and 2.544; VZ 2.264).

164 The coffers, arranged in groups of five over twenty-eight rows, are asymmetrical, allowing their central field to be seen from anywhere in the rotunda. Wilson Jones 2000, 194.

165 They form a marked contrast to the exedrae, which, in shade for most of the day, break up the solidity of the drum. Ward-Perkins 1989, 116.

166 Cass. Dio 53.27.

167 The number twenty-eight, perfect as it equals the sum of its factors, is picked up by the number of columns and pilasters in the pronaos. Gruben and Gruben 1997, 68.

168 Ziolkowski 1999, 61, cf. Chap. II; vs. Hauettecor 1954, 166, de Fine Licht 1966, 198-200, Passuello and Dissegna 1976, 65-6, MacDonald 1982, 119-21, and Gros 1996a, 178. Wilson Jones (2000, 182-3) suggests that the 28 coffers be understood as the phases of the moon, the oculus as the sun (whose course may have been tied to specific astronomical events), and the 5 rows of coffers as the remaining planets. He links the ground plan, divided into sixteen parts, to the Etruscan templum (see Chap. III ‘Augural divination in Archaic Italy: defining the Roman templum’).

169 Stierlin (1984, 106-11) suggests that, by employing such imagery, the Pantheon’s dome would have proclaimed Hadrian the cosmocrator.
The Temple of Zeus Asklepios Soter (#27)\textsuperscript{170} shows marked similarities, both structural and decorative, to the Pantheon (#50).\textsuperscript{171} Located in the Asklepieion at Pergamon, the Temple formed the focal point of the sanctuary, founded in the early fourth century BC.\textsuperscript{172} In the Hellenistic and Julio-Claudian periods, the sanctuary received some attention,\textsuperscript{173} though only during the reign of Hadrian, who took a personal interest in Pergamon,\textsuperscript{174} was it substantially rebuilt. In addition to the Temple, constructed by L. Cuspius Rufinus, consul in 142 AD,\textsuperscript{175} a massive propylon and three colonnaded halls were built to give definition to the sanctuary court. Other Hadrianic buildings at Pergamon include the Traianeum, the Sanctuary of the Egyptian gods, and part of the Gymnasium, which W. Koenigs and W. Radt have shown, probably employed the same workshop as the Temple of Asklepios.\textsuperscript{176}

Begun in the Hadrianic period, the new sanctuary court, accessed via a colonnaded street from Pergamon’s city center,\textsuperscript{177} was bordered by the propylon,\textsuperscript{178} the Temple and, along its north, south and west sides, by covered porticoes or halls.\textsuperscript{179} Under Antoninus Pius, a library, including a statue of the deified Hadrian, was added

\textsuperscript{170} For the Temple’s attribution, see Ael. Arist. 42.4, quoted by Habicht 1969, 13.
\textsuperscript{171} In addition to this Temple, Godfrey and Hemsoll (1986, 204-5) note that the Pantheon influenced the design of buildings connected with kingship, including the ‘Pantheon’ at Ostia (#24) and the Mausolea of Diocletian at Split and of Maxentius (see Chap. VII ‘The Temple of Romulus (#52’)'). To this list can be added the Romano-Celtic Temple of Vesunna at Périgueux, cf. Gros 1996a, 184.
\textsuperscript{172} The early sanctuary, after its foundation by Archias, the first prytaneis of Pergamon, consisted of three small cult buildings and an Ionic temple of Asklepios. Radt 1988, 250-2.
\textsuperscript{173} For a discussion of the sanctuary’s late Hellenistic and early Roman building phases, which may have included a temple on the site of the rotunda (Ziegensaus 1981, 30 and 39), see Radt 1988, 254-9.
\textsuperscript{174} Hadrian visited Pergamon in 123 AD, during the first of two trips to Asia Minor. Koenigs and Radt 1979, 340; Gros 1996a, 181.
\textsuperscript{175} Based on the date of Rufinus’ consulship, Wiegand (1932, 7; vs. Habicht 1969, 9-11) proposed that the temple was built in the Antonine period.
\textsuperscript{176} Koenigs and Radt 1979, 340-2; cf. Radt 1988, 49, for additional Hadrianic buildings at Pergamon.
\textsuperscript{177} The sacred way, which was elaborated with pillars, shops, and a series of funerary monuments in the early Imperial period, follows the primary Hellenistic approach. Radt 1988, 257-9.
\textsuperscript{178} The propylon, built by Claudius Charax, consul in 147, oriented visitors to the court’s east-west axis from the north-east axis pursued by the street. Radt 1988, 261-2.
\textsuperscript{179} Directly outside the sanctuary are a Hellenistic hall and a Hadrianic theater. Radt 1988, 264-5.
to the north of the propylon, while in 200 AD, a round building employed as an Abaton (#26) was built beside the Temple.

Like the Hadrianic Pantheon, the Temple of Zeus Asklepios Soter consists of a columnar porch, an intermediate block, and a domed rotunda. Though only half the diameter of the Pantheon, the rotunda is very similar in construction and plan. Its concrete foundations, conforming to the natural slope of the terrain, are faced with ashlar masonry to the level of the podium. From the podium, the partially-preserved drum rose with courses of ashlar blocks to the springing point of the dome. The drum’s interior is punctuated by seven niches, arranged symmetrically, of which the largest, a round niche opposite the entrance, contained the Temple’s cult statue. Behind the Temple to the east, diametrically opposed to its entrance porch, is a free-standing tower linked by an arch. This tower included stairs to access the Temple’s roof, a dome with an oculus not unlike that of the Pantheon.

Similarly, elements of the Temple’s decorative and sculptural program recall the Hadrianic Pantheon. Its porch, accessed via steps, had four Corinthian columns supporting coffers and a sculpted pediment. To either side of the porch are pilasters set beneath an architrave and a pediment that framed the entrance to the rotunda, while directly below the dome, positioned for emphasis, is a cornice surmounted by an entablature and coffers. Inside the rotunda, the floor and the

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180 The library was constructed by Flavia Melitine in honor of Hadrian. Radt 1988, 263.
181 For rooms formed by the junction between the intermediate block and the rotunda, see Ziegenaus 1981, 38-9.
182 Deubner 1938, 54; Radt 1988, 260.
183 Wiegand 1932, 11.
184 This statue may be depicted on coinage of Marcus Aurelius and Commodus. Deubner 1938, 54.
185 Wiegand 1932, 11-2.
186 A cistern beneath the rotunda’s floor formed part of the water catchment system associated with the oculus. Ziegenaus 1981, 41-4.
187 Radt 1988, 261.
188 Wiegand 1932, 12-4; Ziegenaus 1981, 47-59.
walls were revetted with marble to the level of a Corinthian entablature. Both the
niches, flanked by Corinthian pilasters, and the cupola displayed mosaics.\footnote{Wiegand 1932, 13-4; Ziegenaus 1981, 60-5. The dome is formed of brick-faced concrete, see Ziegenaus 1981, 46, and ‘Roofing techniques’ below. Ziegenaus 1981, 76 and 97.}

The sanctuary at Pergamon is consistent with what is known about the cult of
Aklepios and his worship in the city. While the Temple was the pilgrims’ first and
last point of contact with the god, the round Abaton, which supplemented Hellenistic
incubation rooms,\footnote{Ziegenaus 1981, 76 and 97.} served as a location for effecting cures.\footnote{Robert 1939, 406-10; Radt 1988, 254 and 259-60.} The sanctuary’s
connection to Hadrian, assured by building work begun during his reign, is
underscored by the fact that the emperor was frequently identified with Asklepios at
Rufinus’ architects chose to emulate Hadrian’s prized Pantheon in the Temple’s
design. Moreover, as a dedication to Zeus Asklepios Soter, its round form is not
without precedent. The fourth century BC Tholos in the Sanctuary of Asklepios at
Epidauros (#13) was one of the finest round buildings in the Greek world.\footnote{A small tholos may have covered the bothros in the Asklepieion at Athens. Robert 1939, 234-40, 325-6, and 406-7.}

\textbf{The round temples of Hadrian’s Villa, Tibur (#63 and 65)}

Another major architectural project of Hadrian’s reign, his Villa at Tibur,
included two round Shrines. The smaller of the two, a domed drum that formed part
of his South Theater (#65), is known from physical remains as well as drawings by
Ligorio, Contini, Piranesi, Nibby, and Pannini.\footnote{See #66. For a discussion of the South Theater, see MacDonald and Pinto 1995, 124-31.} Centered within a trapezoidal

\begin{footnotes}
  \footnote{Robert 1939, 234-40; Cass. Dio 69.16.2; Habicht 1969, 10; Godfrey and Hemsoll 1986, 209 n. 71. A previous builder, Attalos III of Pergamon, also associated himself with Asklepios. Radt 1988, 254.}
  \footnote{A small tholos may have covered the bothros in the Asklepieion at Athens. Robert 1939, 234-40, 325-6, and 406-7.}
  \footnote{See #66. For a discussion of the South Theater, see MacDonald and Pinto 1995, 124-31.}
\end{footnotes}
precinct near the top of the cavea,\textsuperscript{195} the drum probably contained a statue base\textsuperscript{196} and may have been preceded, according to Ligorio, by a four-column porch supporting three statues.\textsuperscript{197} Fragments of a statue of Hercules found near the Shrine\textsuperscript{198} would suggest that its precinct incorporated some type of display, though whether this formed part of its porch cannot be resolved without further excavation.

As a shrine sited above a theater, the drum at Tibur has parallels in Pompey’s theater and temple to Venus Victrix in the Campus Martius, ca. 61-55 BC.\textsuperscript{199} In plan, it also recalls the Temple at Praeneste (#31), which rises above cavea,\textsuperscript{200} and, for its location in a private villa, the theater shrine in the Villa of M. Agrippa Postumus on Planasia.\textsuperscript{201}

The larger temple, the so-called Shrine of Aphrodite (#63), formed the centerpiece of an elaborate nymphaeum situated above the Valle di Tempe, the Villa’s eastern limit, and alongside one of its major entry routes.\textsuperscript{202} Though in a poor state of preservation, the nymphaeum, known as the Ninfeo Fede, can be reconstructed with a semicircular portico embracing the Shrine\textsuperscript{203} and two side apses, shaped as hemicycles.\textsuperscript{204} Ancillary rooms and a corridor complement this structure, all of which

\textsuperscript{195} MacDonald and Pinto (1995, 130) note that the shape and size of this platform is unusual for theater shrines.
\textsuperscript{196} The base is illustrated on an elevation by Pannini, cf. MacDonald and Pinto 1995, 128 fig. 159.
\textsuperscript{197} Ligorio’s porch is also notable for its multi-colored pavement, see ‘Mosaic and stucco work’ below. Hanson 1959, 72-3.
\textsuperscript{198} Winnefeld 1895, 125; Hanson 1959, 73.
\textsuperscript{199} Gros 1999, 120-1. The temporary tholos erected in honor of Zeus Sosipolis at Magnesia on the Meander may have stood above the city’s theater. Kern 1900, 98, 1.9, 44 (inscription); Fiechter 1937, 308; Robert 1939, 70-2; Roux 1992, 196.
\textsuperscript{200} See Chap. IV #31.
\textsuperscript{201} Hanson 1959, 73.
\textsuperscript{202} de Franceschini 1991, 140-2; Aurigemma 1996, 44.
\textsuperscript{203} The Shrine appears on plans of Piranesi and Rossini. Aurigemma 1996, 44.
\textsuperscript{204} de Franceschini 1991, 450; Calandra 1996, 188-9.
rests on an artificial terrace. The Shrine, which faced west, consisted of twenty Doric columns supporting an entablature, coffers, and possibly a conical roof.

Because of a copy of Praxiteles’ Aphrodite discovered in the nymphaeum, this monopteros is commonly associated with the sanctuary of Aphrodite Euploia at Knidos (#16). The sanctuary, which housed the original statue, may have been one of several famous sites that Hadrian recreated at his Villa. Although it is not mentioned among his copies, ancient sources and possible remains pertaining to the Knidian temple suggest that it was similar to Hadrian’s Shrine. In describing his visit to the Temple at Knidos, Pseudo-Lucian makes note of its garden precinct and two doors. Pliny also refers to the Temple, remarking that it “stands entirely open so as to allow the image of the goddess to be viewed from every side.”

Neither author assigns it a round form, but partly on the basis of the Shrine at Tibur, I. C. Love has identified a monopteros at Knidos as the Temple of Aphrodite Euploia. This fourth century BC Temple rises from an artificial terrace. Its eighteen columns rest on a stylobate fronted by steps, which are aligned with a rectangular altar. Inside the Temple is a marble statue base that may have supported

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205 Lugli 1932, 112-4; de Franceschini 1991, 446 and 450.
206 de Franceschini 1991, 140. However, the columns may not have been strong enough to support a roof, see Coulton 1977, 84-5 and 154-9.
207 Schefold 1964, 56-9 fig. 2.
208 Hist. Aug. Hadr. 26.5. This incomplete listing includes places Hadrian visited as well as sites from the Underworld. Andreae and Ortega 1992, 69; Calandra 1996, 239 and 251. In this context, a shrine to Aphrodite Euploia, the patron goddess of sea travellers, seems particularly appropriate.
209 Andreae, Ortega (1992, 69) and Paribeni (1994, 16 n. 4) express concern that the Knidian Temple is absent from the list.
210 Ps. Luc. 11-18. Examples of tholoi with diametrically opposed doors may be found at Eretria, Aezani, and Taman. Roux 1992, 203-6 and 213-6.
211 Plin. (nat. 26.4.21) refers to the Temple as an aedicula, which Roux (1992, 198) considers worrying in view of the monopteros’ (and Hadrian’s Shrine’s) large size.
212 Pausanias (1.1.3) notes a number of temples to Aphrodite at Knidos.
214 Based on Hadrian’s Shrine, Love (1972, 74, and 1973, 424; vs. Calandra 1996, 250-1) assumed that the columns of the Knidian Temple were Doric and attributed the Corinthian capitals found on site to a later rebuilding.
Praxiteles’ Aphrodite,\textsuperscript{215} while Love links an area to the east with the gardens described by Pseudo-Lucian.\textsuperscript{216}

Neither the monopteros at Knidos nor Hadrian’s Shrine preserves doors. Though their absence has caused some scholars to identify a rectangular shrine to the west of the monopteros as the Temple,\textsuperscript{217} it is likely, as K. Schefold suggests, that her statue stood behind folding doors.\textsuperscript{218} Moreover, a round temple at Knidos would explain the long tradition of round shrines to Aphrodite.\textsuperscript{219} One of the first Roman temples to partake of this tradition is the Shrine of Venus in the Horti Sallustiani (#55).\textsuperscript{220} As the Horti belonged to Hadrian,\textsuperscript{221} this building may have influenced his decision to build the round Shrine at Tibur.

The use of a semicircular nymphaeum to enclose the Shrine may have a precedent in the Shrine of Hercules by the Pons Aelius (#41), a round monopteros set within a curved portico.\textsuperscript{222} By incorporating the Shrine into a nymphaeum, instead of a sacred precinct like the sanctuary at Knidos, Hadrian may have implied that his dedication was meant as a tribute to the goddess rather than a temple to her cult.\textsuperscript{223}

\textbf{The Temple of Tyche, Side (#59)}

\textsuperscript{215} Love (1972, 75-6) may have discovered a fragment of the Aphrodite statue, together with an inscription that may name Praxiteles.

\textsuperscript{216} Love 1972, 72; vs. MacDonald and Pinto 1995, 58.

\textsuperscript{217} For the rectangular shrine, see Love 1972, 75. Linfert (1981, 615) and Ridgway (1984, 80 n. 66) suggest that Hadrian’s Shrine conflated the statue of Aphrodite and the notable, but independent monopteros at Knidos.

\textsuperscript{218} Schefold 1964, 56. Folding doors may have been employed to restrict access to the cult statue of the Temple of Nemesis at Rhamnous. Roux 1992, 199.

\textsuperscript{219} MacDonald and Pinto 1995, 58-9. See Chap. IV #55 for an overview of this tradition, to which may be added a round shrine of Aphrodite at Roman Paestum. Sestieri 1953, 129-33.

\textsuperscript{220} See Chap. IV #55.

\textsuperscript{221} His active interest in the property is attested by brick stamps. Calandra 1996, 256.

\textsuperscript{222} See Chap. V #41 and below. Also comparable are coin depictions of the Macellum Magnum at Rome, which show a monopteros set against a portico, cf. Hill 1989, 40, and Pisani Sartorio 1996, 204-6.

\textsuperscript{223} Calandra 1996, 249-51.
The Hadrianic Temple of Tyche (#59), located in the Agora at Side, has been identified based on remains, both extant and described by early investigators,\textsuperscript{224} coins, and comparable temples.\textsuperscript{225} Remains of the Temple include its foundations, its podium fronted by steps, and part of its twelve-column peristasis. These Corinthian columns, echoed by twelve pilasters, support a three-fascia architrave and a frieze course. While the frieze above the colonnade displays acanthus, that above the pilasters is more elaborate with putti, garlands, and sculptured heads.\textsuperscript{226} On top of both entablatures are coffers and a conical roof.\textsuperscript{227}

By far the most interesting part of the Temple is the drop ceiling of its cella. Along the base of the ceiling ran a ring of twelve images, each of which represented a sign of the zodiac. Although uncommon, comparable ceilings may be found in the adyton of the first century AD Temple of Bel at Palmyra, where the seven planetary gods appear encircled by the zodiac,\textsuperscript{228} and in the west apse of the Temple of Hercules at Sabratha. Here, Marcus Aurelius, riding an eagle, may be shown at the center of the zodiac.\textsuperscript{229}

In sculpture, this theme is explored in a round Nabatean plaque from Khirbet Tannur, probably of the first century BC, where the zodiac is used as a frame for an image of Fortuna.\textsuperscript{230} Although she does not appear on the ceiling at Side, A. Mansel suggests that the Temple conveys the same idea, namely that Fortuna controls human

\begin{footnotesize}
\textsuperscript{224} Fragments of the ceiling, now lost, were catalogued by F. Beaufort (1818, 98-9) and E. Petersen (Lanckoronski 1892, 135-7).
\textsuperscript{225} Mansel and Bean (1956, 37; vs. Koenigs and Radt 1979, 348 n. 42) date the Temple by reference to its closest stylistic parallel, the gate of Hadrian at Antalya.
\textsuperscript{226} These heads may represent Tyche, see ‘The Entablature’ below.
\textsuperscript{227} Mansel and Bean (1956, 36 n. 30) point to comparable roofs on Syrian tombs.
\textsuperscript{228} Gundel 1966, 1279-83; Joyce 1990, 364-5 and 372.
\textsuperscript{229} Caputo and Ghedini 1984, 69-70. Stierlin (1984, 103-5) claims that Hadrian is depicted with a phoenix and zodiac band on coins minted in 121.
\textsuperscript{230} The plaque is carried by a winged Nike figure. Matheson 1994b, 28-9.
\end{footnotesize}
destiny by overseeing the movement of the stars or the zodiac.\footnote{231 Mansel and Bean 1956, 33 and 36-7 n. 40; cf. Stierlin (1984, 145) for Greek and Roman conceptions of the zodiac.} His attribution of the Temple to Fortuna finds support in Imperial coinage. Coins minted by Gallienus and Salonina,\footnote{232 See #59.} connected with Side, show a seated figure of Tyche inside a round temple with a conical roof.\footnote{233 Mansel and Bean (1956, 35) see a pomegranate on top of the roof.} Moreover, comparable coin depictions of the Temples of Tyche at Antioch and Sagalassos, probably Hellenistic in date, show that they too were round.\footnote{234 Antioch: Imhoof-Blumer 1888, Vol. 2: 362 no. 25 pl. 12.20; Sagalassos: Hill 1989, 251 no. 55 pl. 38.15; cf. Mansel and Bean 1956, 36 n. 32, and Szilágyi 1966, 1940-1. For other temples to Tyche, see Paus. 2.2.7-8, 2.20.3, and 4.30.3-6.} Possibly the earliest and most famous round temple to Tyche is that at Alexandria. As described by Libanius,\footnote{235 Lib. descr. Foerster VIII, 529-31; cf. Theoph. Sim. hist. 8.13, and BMC Alexandria LV, XC, pl. xi.} it was notable for its semicircular niches, containing statues of the twelve gods, and its cult image of Tyche crowning Alexander the Great.\footnote{236 Will 1951, 239; La Rocca 1999b, 283.} While the connection between Tyche and the ruler cult is reaffirmed in the Imperial period by the Temple of Fortuna on the Pincio (#37),\footnote{237 See Chap. V #37.} the Hadrianic Temple at Side, like the Temple of Fortuna Huiusce Diei (#38),\footnote{238 See Chap. IV #38.} may commemorate the goddess’ role in regulating everyday life.

**The Shrine of Sulis-Minerva, Bath (#8)**

Like the Temple of Zeus Asklepios Soter at Pergamon (#27), the round Shrine of Sulis-Minerva at Bath (#8) may have been constructed in connection with Hadrian’s visit to the city in 122 AD.\footnote{239 Cunliffe 1995, 87.} This substantial monopteros, whose diameter approximates the width of Bath’s principle temple to Minerva,\footnote{240 Richmond and Toynbee 1957, 97-105; Cunliffe 1966, 199-204.} consists of twelve...

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\footnote{231 Mansel and Bean 1956, 33 and 36-7 n. 40; cf. Stierlin (1984, 145) for Greek and Roman conceptions of the zodiac.}
Corinthian columns supporting an elaborate entablature and a conical roof.\textsuperscript{241} The entablature, carved on both sides, combines a tendril motif on its inner face with floral and animal designs on its exterior.\textsuperscript{242}

The monopteros, set within a rectilinear precinct to the north of the city’s baths, was aligned with the main temple of Sulis-Minerva.\textsuperscript{243} In addition to its shared axis and comparable size, the monopteros celebrated the same goddess, whose cult is unique to the thermal complex at Bath.\textsuperscript{244} However, the temples were dramatically different in style, as the monopteros recalls Hadrianic architecture in Italy and the Greek world rather than Romano-Celtic buildings.\textsuperscript{245}

The Antonines: (138-192 AD)

**Antoninus Pius: (138-161 AD)**

Unlike Hadrian’s, Antoninus Pius’ building program, which focused on arches, columns, and temples to the Imperial cult,\textsuperscript{246} involved limited restoration and construction of round buildings in Rome.\textsuperscript{247} Outside of Italy, the only round monopteroi constructed during his reign formed part of the nymphaeum of Herodes Atticus at Olympia.\textsuperscript{248}

\textsuperscript{241} For difficulties that arise when roofing a monopteros of this size, see #63 above.
\textsuperscript{242} Cunliffe 1995, 86.
\textsuperscript{243} Cunliffe 1995, 85-7; cf. Wilson Jones 2000, 153 fig. 7.29.
\textsuperscript{244} For this healing cult, see Croon 1953, 79-83.
\textsuperscript{245} For Romano-Celtic round temples, which fall outside the scope of this thesis (Chap. I), see Horne and King 1980, 369-555 (Western Europe), Rodwell 1980b, 557-85 (Britain), and Grimal and Woloch 1983, 55-6.
\textsuperscript{246} The most significant temples include those of Divus Augustus (Torelli 1993, 145-6), Hadrian (Cipollone 1996, 7-8), and Faustina (Cassatella 1993, 46-7). Ward-Perkins 1989, 124-6.
\textsuperscript{247} Like Hadrian (see above), Antoninus Pius may have commemorated a restoration of the Shrine of the Penates at Lavinium (#17) on medallions.
\textsuperscript{248} Schleif and Weber 1944, 53-82; Binder 1969, 107. Based on Herodes’ wife Regilla’s status as a priestess of Demeter, Robert (1939, 399-402) mistakenly attributes the monopteroi to Zeus.
Among the temples Antoninus Pius is credited with restoring are the Pantheon (#50) and the Shrine of Bacchus (#32) in Rome. Though recorded by literary sources, the lack of any archaeological evidence for Antonine work on the Pantheon suggests that his repairs were minimal.\textsuperscript{249} An inscribed entablature however links Antoninus Pius with the late Republican Shrine.\textsuperscript{250} This block, which depicts a Maenad or follower of Bacchus,\textsuperscript{251} is all that remains of the modest shrine \textit{in summa sacra via}, whose existence along with a Tholus to Cybele (#34) is attested by Martial.\textsuperscript{252}

A medallion minted under Antoninus Pius has been thought to refer to both the Shrine and the Tholus.\textsuperscript{253} This medallion shows a monopteros set within a two-storied colonnade. The colonnade is fronted by antae and topped by a plain, three fascia architrave and a series of objects, possibly Bacchic masks. Resting on a high podium, the shrine is depicted with four columns supporting a blank architrave and a domed roof. Garlands hang from the architrave and a globular finial tops the roof. The shrine contains a cult image commonly identified as Bacchus and is preceded by a tripod and a basket of grapes.\textsuperscript{254} While G. Lugli has proposed that the colonnade was sacred to Bacchus and the shrine to Cybele,\textsuperscript{255} other scholars see the colonnade

\textsuperscript{249} \textit{Hist. Aug. Pius} 8 and see #50.
\textsuperscript{250} Though fragmentary, the inscription (#32) identifies the Shrine’s rebuilding with Antoninus Pius and dates it to 143-161 AD. Gatti 1899a, 147-8, and 1899b, 223; Hülsen 1902a, 241, and 1902b, 95; Vaglieri 1903, 27-9; Lugli 1946, 219, and 1947, 147.
\textsuperscript{252} See Chap. IV #34 and above.
\textsuperscript{253} Hülsen 1902a, 241, and 1902b, 95-6; Jordan and Hülsen 1907, 104; Lugli 1946, 219, and 1947, 174; Coarelli 1982, 36.
\textsuperscript{254} Two figures approach the shrine, one leading an animal for sacrifice and the other carrying fruit. Brown 1941, 19-20.
\textsuperscript{255} Lugli 1947, 176.
and the monopteros as a shrine to Bacchus and imagine that the shrine to Cybele was not dissimilar.\textsuperscript{256}

A closer parallel for the image illustrated on the medallion is the Shrine of Hercules (#41) located near the Pons Aelius.\textsuperscript{257} This Shrine, founded in the Julio-Claudian period, was enclosed within a semicircular portico. Although probably one-story, the portico, when combined with the Shrine, is reminiscent of the image on the medallion. Moreover, as the identification of the shrine on the medallion is not secured by a legend, its attribution to Liber-Bacchus is only based on attributes. As a result, this medallion may indicate that Antoninus Pius rebuilt the Shrine of Hercules or alternatively, that round shrines set within colonnaded courts were not uncommon in Rome.

**The Shrine of the Genius Senatus, Rome (#39)**

Coins minted under Antoninus Pius, ca. 158-159 AD,\textsuperscript{258} may point to the construction of a Shrine to the Genius Senatus or “spirit of the Senate” (#39).\textsuperscript{259} They show a small monopteros with two columns supporting a curved pediment or a dome, flanked by two additional columns.\textsuperscript{260} Inside is a togate cult image standing on a low base. The attributes of this figure are difficult to interpret, but may represent a scepter and a branch, both highly appropriate for the Genius Senatus.\textsuperscript{261} This attribution must remain speculative however as the coins lack legends to identify the figure.

\textsuperscript{256} Hülsen (Jordan and Hülsen 1907, 104; cf. Brown 1941, 21) suggested that the two tholus-shaped Shrines of Bacchus and Cybele formed part of a symmetrical entrance to the Palatine.
\textsuperscript{257} See Chap. V #41.
\textsuperscript{258} See #39.
\textsuperscript{259} Hill (1989, 39) speculates that the Shrine was located inside the Curia.
\textsuperscript{260} The pediment or dome is topped by fleurettes along its ridge and statuettes at its corners. Hill 1989, 17.
\textsuperscript{261} Birt 1845, 1613-25. Strack (160, quoted in BMCEmp IV lxxiv) has identified the figure as the emperor in the guise of a *pacator orbis.*
Moreover, if a segmental pediment rather than a dome, there is no evidence to suggest that they represented a round shrine.\textsuperscript{262}

\textbf{Commodus: (180-192 AD)}

The reign of Commodus saw even less new building than that of Antoninus Pius,\textsuperscript{263} though it did include a round Shrine at Portus (#29), the port of Ostia.

\textbf{The Shrine of Liber Pater Commodianus, Portus (#29)}

To Commodus’ reign can be attributed a small peripteral Shrine (#29) sited near the north-east corner of Trajan’s harbor at Portus. Consisting of a high socle, Corinthian columns and a fragmentary entablature,\textsuperscript{264} its remains can be identified with the Shrine of Liber Pater\textsuperscript{265} mentioned in an inscription\textsuperscript{266} and depicted together with a statue of Bacchus on the Torlonia harbor relief.\textsuperscript{267} For its location, the Shrine may honor Liber Pater as a protector of merchants, an attribute derived from the Greek Dionysos.\textsuperscript{268} This would be appropriate in view of the Shrine’s closest architectural parallels: the Monument of Lysicrates at Athens (#3) and the Rotunda at Termessos (#62).

\textbf{Round temples dated to the Antonine period:}

\textsuperscript{262} In his short description of this monument, Hill (1989, 17 and 39) does not state that he believes the image on the coin to represent a round shrine, though, as he identifies the Shrine of Spes Vetus (see Chap. III #54) in the same series as round, it is possible to infer that he holds this view.

\textsuperscript{263} Ward-Perkins 1989, 124.

\textsuperscript{264} For its inscription (\textit{CIL} XIV 666), see #29.

\textsuperscript{265} Although used for a variety of gods, Pater became the established epithet of Liber in the Imperial period. Bruhl 1953, 13-4.

\textsuperscript{266} This inscription (\textit{CIL} XIV 30, #29, and ‘Foundation and layout’ below), which commemorates a dedication \textit{ex voto} to Liber Pater Commodianus, was found near the shrine. Lanci 1864, 81; Meiggs 1973, 385. For Commodus’ dedications to Liber, see Bruhl 1953, 190.

\textsuperscript{267} Meiggs 1973, 165.

\textsuperscript{268} This attribute of Liber was usually commemorated in port cities outside of Rome. Bruhl 1953, 210-1. For an earlier dedication to Liber at Ostia (\textit{CIL} 14.28-9), see Bruhl 1953, 205.
Also Antonine in date are round monopteroi at Argos (#2), Athens (#5), and Isthmia (#15) and a tholus at Magnesia on the Meander (#18). Unlike the monopteroi, the tholus is too fragmentary to be reconstructed, though an inscription notes that it was dedicated by Apollonius to Athena Poliouchos.

The Temple of the Nymphs, Argos (#2)

The second century AD monopteros in the Agora at Argos is identified as a Temple to the Nymphs (#2) by an inscription on its architrave. Encased within a rectangular socle, its foundations consist of three courses of radiating blocks laid out around a pit. The pit is accessed both by steps and by a corridor that extends to the northern limit of the socle. A circular stylobate resting on the socle provided support for eight columns with Attic bases, monolithic shafts, and Corinthian capitals. Above the columns was an entablature with a three-fascia architrave, an inscribed frieze course, a modillion cornice, and lion-head water spouts. A timber roof, topped by an acanthus finial, crowned the Temple.

The pit, reminiscent of bothroi in the Tholos at Epidauros (#13) and the Temple of Hercules Victor ad portam Trigeminam (#44) as well as of the favissa of the Temple of Vesta in the Roman Forum (#57), was probably integral to the cult.

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269 A curved entablature, now lost, has been attributed to this building by Fiechter (1937, 309) and Robert (1939, 73 and 412).
270 Kern 1900, no. 216.
271 Will (1951, 239) and Roux (1992, 178 and 196) speculate that the Shrine was founded on Athens’ behalf.
272 Roux 1957, 665, vs. 1954, 162 (peripteros).
274 Courbin 1953, 107; Roux 1954, 162, and 1957, 663.
275 Roux 1954, 160, and 1957, 664. As a monopteros on a high socle, it resembles the Rotunda at Corinth (see Chap. V #9).
276 Roux 1957, 664.
a Temple to the Nymphs or Nymphaeum,\textsuperscript{278} a term commonly used to describe fountain houses, its pit may have contained an hydraulic apparatus,\textsuperscript{279} allowing the monopteros to function as both a fountain and a temple.

**The Rotunda, Athens (#5)**

Not the first rotunda to occupy the Athenian Agora, the monopteros (#5) added in the mid-second century AD stood in marked contrast to the fifth century BC drum known as the Skias (#6). Functionally too, the two buildings differed, the earlier serving as the meeting place of the prytaneis into the Imperial period,\textsuperscript{280} and the later as a shrine or fountain house.\textsuperscript{281} The foundations of the monopteros, though little of its elevation, are extant near the northern end of the Stoa of Attalos. They overlie the western portion of a square peristyle court, which was built in the fourth century BC and dismantled in the second century AD, a few years before the Rotunda was erected.\textsuperscript{282} A substantial deposit of lead seals, naming Zeus, Athena, Poseidon, Asklepios, and other gods, was found in a Roman stratum in the area. Like the destruction date of the court, this deposit acts as an effective *terminus post quem* for the Rotunda,\textsuperscript{283} and would, moreover, endorse its identification as a religious building.

\textsuperscript{278} Frontin. *aq.* 3. Robert (1939, 6) may have found a Greek precedent for this Temple in a round shrine of the Nymphs on Delos.
\textsuperscript{279} Roux 1954, 162.
\textsuperscript{280} For a third round building in the Agora, which functioned as a fountain, see Shear, jr. 1971, pl. 46; vs. Robert (1939, 388-9) and Thompson and Wycherley (1972, 121-3), who incorrectly identify it as a shrine known as the Leokorion (cf. Strab. 9.1.16).
\textsuperscript{281} The foundations of the building, strong enough to support a water basin, and a water channel found in its vicinity have been used as evidence to see the Rotunda as a fountain house. Dinsmoor, jr. 1974, 425-7.
\textsuperscript{282} Townsend 1995, 76.
\textsuperscript{283} Shear 1936, 412.
The Rotunda consisted of deep foundations\(^{284}\) supporting a three-step krepis and eight Corinthian columns.\(^{285}\) Above the columns rose an architrave, an entablature, a sima with lion-head water spouts, and a brick dome.\(^{286}\) Positioned to correspond with the upper story of the Stoa of Attalos,\(^{287}\) this lofty monopteros, throughout its relatively short existence,\(^{288}\) made a notable contribution to the building and religious repertory of the Athenian Agora.

**The Temple of Palaimon-Melikertes, Isthmia (#15)**

In the Antonine period, a round temple was constructed in the precinct of Palaimon-Melikertes at Isthmia (#15). The precinct, a replacement of an earlier cult site,\(^{289}\) is located beside the starting gates of the Stadium\(^{290}\) and to the south-east of the peribolos of Poseidon. Stoas were added to the peribolos at the same time as the Temple was built by Publius Licinius Priscus Iuventianus. As high-priest of Poseidon, Iuventianus sought to demonstrate his status and religious fervor by enlarging and ornamenting two of Isthmia’s main cult sites.\(^{291}\)

The Temple of Palaimon, centered along the east-west axis of the precinct, was preceded to the east by an altar and an open area used for cult rituals.\(^{292}\) Of the Temple building, little remains beyond its high, square socle, which contained a pit

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284 Deep foundations may have been necessary to support the Rotunda’s heavy dome, see below.
287 Shear 1936, 424-5.
288 The Rotunda was destroyed during the Herulian invasion of 267 AD. Shear 1936, 412 n. 5.
289 Will 1955, 170; cf. Broneer (1973, 99-106), for a detailed description of the precinct’s development in the 1\(^{\text{st}}\) and early 2\(^{\text{nd}}\) centuries AD.
290 The stadium fell into disuse after the destruction of Corinth in 146 BC. Broneer 1973, 4.
292 Lamps involved in nocturnal rites were found throughout the precinct. They may endorse the identification of the Temple as a heroon, possibly like the Tholos at Epidaurus (#13). Hawthorne 1958, 95.
and a corridor linked to a reservoir. Although the corridor suggests that water played a part in cult practice, the pit functioned as more than a fountain base. According to Pausanias, it served as an adyton where oaths were taken, possibly by athletes and officials involved with the Isthmian games.

Like its pit and corridor, the Temple’s elevation recalls that of the Nymphs at Argos (#2). Coins minted under Hadrian, Marcus Aurelius, Caracalla, and Geta depict it as a round monopteros with a stepped podium, Corinthian columns, and a cupola ornamented with acroterial sculpture. Inside the temple is a statue of Palaimon reclining on the back of a dolphin, while sacred trees, the entrance to the adyton, and a priest leading a bull to sacrifice appear nearby.

Based on the coins, O. Broneer has reconstructed the Temple with a square podium, accessed via four steps, and eleven Corinthian columns. The central intercolumnation is wider to showcase the statue of Palaimon on a dolphin, while the Temple’s cupola, topped by a finial, is ornamented with floral and dolphin-shaped acroterial sculpture. Though unusual, the Temple’s odd number of columns and wide central intercolumnation has a precedent in the Temple of Roma and Augustus.

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293 The corridor, also accessed via the Temple’s cella, was coated with water-tight stucco. Broneer 1973, 107-10.
295 Paus. 2.2.1.
296 Robert 1939, 156-9 and 177-9; Broneer 1973, 42-3 and 111-2.
297 For other round temples that contained pits, see #2 above.
298 The Hadrianic coins may commemorate its construction. Broneer 1973, 112.
299 The Uffizi and Lateran reliefs depict a sacred tree, representing the lucus of Vesta, beside her Temple in the Forum (see #57 and above; cf. Smith 1950, 27 n. 52).
300 Festivals in honor of Palaimon involved the sacrifice of a black bull (Philos. imag. 420); cf. Robert 1939, 156-7 and 177-9 (chthonic significance).
301 As this motif is common on coins, it may not signify that the Temple’s intercolumnations varied in width.
302 Broneer 1973, 110-11. Similar marine decoration appears on the tholos of the macellum at Puteoli (De Ruyt 1983, 150-8) and in the fountain to Poseidon, which Babbius Philinus built in conjunction with his Rotunda at Corinth (see Chap. V #9; cf. Scranton 1951, 16, 34 and 66).
The central intercolumnation in both buildings may simply enhance their ability, as round monopteroi, to exhibit their statuary.\textsuperscript{304} In his description of the Temple, Pausanias mentions statues of Palaimon, Leucothea, and Poseidon, who oversaw the Isthmian games, in its precinct.\textsuperscript{305} The presence of these statues is appropriate in view of Palaimon’s mythical origins. As Melikertes, the son of Ino-Leucothea, he was rescued from drowning by a dolphin which carried him to Isthmia. Following his later death and apotheosis, the city’s leader Sisyphus\textsuperscript{306} honored him by founding the Isthmian games.\textsuperscript{307}

Although Palaimon and Leucothea first appear in Homer,\textsuperscript{308} the majority of sources that deal with the myth date to the early Imperial period. As a result, J. Hawthorne assigns the cult’s foundation to the re-establishment of Corinth as a Roman colony in 46 BC.\textsuperscript{309} The archaeological evidence, if only by its absence prior to the first century AD, supports Hawthorne’s idea that the cult of Palaimon originated at Isthmia in the Roman period. As attested by the Temple, the cult reached its height in the second century AD.

\section*{III ANALYSIS}

\subsection*{FOUNDATION AND LOCATION}

\footnotesize{\textsuperscript{303} See Chap. V \#4.}
\footnotesize{\textsuperscript{304} This was probably a concern of Babbius Philinus, when he chose the round form for his monument (see Chap. V \#9).}
\footnotesuperscript{305} Paus. 2.2.1. None of these statues have been found. Broneer 1973, 111.
\footnotesuperscript{306} A statue base of Sisyphus was discovered to the north-east of the Temple together with a base dedicated to Iuventianus. Broneer 1973, 112.
\footnotesuperscript{307} See \#15. For interpretations of the myth, see Robert 1939, 156-9 and 177-9, Will 1955, 169-80 and 210-2 (who explores the conflated cults of Ino-Leucothea and Melikertes-Palaimon), and Käppel 2000, 1185.
\footnotesuperscript{308} Hom. \textit{Od.} 5.333.
\footnotesuperscript{309} Hawthorne 1958, 92-8; vs. Will 1955, 169-80 and 210-12 (pre-hellenic).}
Of the round temples rebuilt at Rome from the Flavian through the Antonine periods, most have been linked to individual emperors by coins, ancient sources, and building inscriptions.\(^{310}\) Through their depiction on official currency, the Temple of Vesta (\#57)\(^{311}\) and possibly the Tholus of Cybele (\#34) and the Shrine of Hercules (\#41) may reflect projects carried out by the Senate on behalf of Vespasian, Domitian, Trajan, and Antoninus Pius. Ancient sources point to other Imperial projects, namely the restoration of the Pantheon (\#50) during the reigns of Domitian and Antoninus Pius and its complete rebuilding, confirmed by brick stamps, under Hadrian. Similarly, dedicatory inscriptions from the Perirrhanterion (\#51) and the Shrine of Bacchus (\#32) attribute their rebuildings to Vespasian and Antoninus Pius.

Through their efforts, emperors were able to express their esteem for the temples’ cults and founders, most evident in the two restorations of the Temple of Vesta, a goddess linked to Rome’s foundation,\(^{312}\) and Hadrian’s rebuilding of the Pantheon as a tribute to Augustus and Agrippa.\(^{313}\) Of the new temple foundations, Hadrian’s round Shrines at Tibur (\#63 and 65) fit within the program adopted at his villa by exploring his Greek sensibilities and interest in a variety of architectural forms.\(^{314}\)

Outside of Rome, the Shrine of Liber Pater Commodianus at Portus (\#29), built *ex voto* by a resident, honored both Commodus and Liber, while round temples founded in the provinces, namely the Temples of Zeus Asklepios Soter at Pergamon (\#27) and of Tyche at Side (\#59) and the Shrine of Sulis-Minerva at Bath (\#8), may

\(^{310}\) An exception to this is the Temple of Fortuna Huiusce Diei (\#38), which is indirectly linked to Domitian based on restoration work he undertook in the Area Sacra.

\(^{311}\) Scott (1999b, 127) suggests that Trajan was directly involved in the rebuilding of the Temple of Vesta.

\(^{312}\) The restoration of the Tholus of Cybele may be comparable, if it was meant to evoke the goddess’ importation to Rome as illustrated on the terracotta reliefs.

\(^{313}\) Similar is Vespasian’s rebuilding of the Perirrhanterion, should it have provided a means of honoring the god who oversaw his Jewish victory, see \#51 above.

\(^{314}\) The incorporation of the Shrine into the theater marks an uncommon, though not unprecedented, use of the round form, see \#65 above.
have celebrated visits of Hadrian together with commemorating their respective 
gods. Of these, the founder of the Temple of Asklepios is known to have been a 
local magistrate, while another provincial foundation at Isthmia (#15) can be 
attributed to the high priest of Palaimon-Melikertes. Like the Temple at Isthmia, 
round temples at Argos (#2) and Athens (#5) mark local dedications, which probably 
had little to do with the Imperial cult or emperors’ initiatives.

Although its location remained constant, the Temple of Vesta was elevated on 
a high podium by the Trajanic period to underscore its religious significance and 
make it commensurate to the increasingly high buildings that occupied the Roman 
Forum. Similarly, in his rebuilding, Hadrian’s architects preceded the Pantheon by 
a long rectangular forecourt to emphasize its north-south axis and by doing so, align it 
with neighboring buildings. This axis moreover underlined its symbolic connection to 
the Mausoleum of Augustus, which probably proved decisive in Hadrian’s decision to 
undertake such a sizeable building project.

The Temple of Zeus Asklepios Soter, though nominally a replacement of an 
earlier temple, was built anew in the Hadrianic period in conjunction with a dramatic 
restructuring of Asklepios’ sanctuary. Previously consisting of a few temples and 
sacred springs, the sanctuary was redefined through the addition of porticoes on three 
sides, and a propylon, a library and the Temple on the fourth. The appearance of 
symmetry fostered by these buildings, arranged around a central axis, was 
enhanced by the columnar porches of the propylon and the Temple, which, like the 
Pantheon’s pronaos, helped to mask the latter’s round form.

315 The plan of the Temple of Zeus Asklepios Soter is a direct reference to Hadrian’s Pantheon.
316 This privilege was reserved for the city’s most sacred buildings, see Tac. hist. 4.53 and Scott 1999, 127.
317 Similarly, the Perirrhanterion’s proximity to the Temple of Apollo Medicus may have induced 
Vespasian to rebuild it, see #51 above.
318 Deubner 1938, 33.
Similarly, the Temple of Palaimon-Melikertes was a new foundation located at an earlier religious site. Its position next to the precinct of Poseidon underlined similarities in their cults, while its proximity to the Earlier Stadium reflected the origins of the Isthmian games. The round monopteros of Sulis-Minerva at Bath was also sited in a pre-existing sanctuary, dominated by thermal baths and the goddess’ main temple, with which it shared its proportions and axis.319

The remaining round temples founded in the Antonine period occupy secular spaces. Of these, the round Shrines from Tibur are the most dramatic; one is accessed by ascending the cavea of the South Theater,320 and the other, from a major entry route, though it is framed by a dramatic landscape spreading out below its artificial terrace.321 The Shrine of Liber Pater is sited beside Trajan’s harbor, while the Temples of Tyche and of the Nymphs and the Rotunda at Athens are located in their city’s principal agoras. Earlier structures may have influenced the off-center siting of the Temple at Side as well as the Rotunda at Athens, which is aligned physically, and possibly symbolically, with the neighboring Stoa of Attalos.322

More so than in the Julio-Claudian period, buildings like the Pantheon and the Temple of Zeus Asklepios Soter focus on interior space, allowing porches, porticoes, and neighboring buildings to align them with their surroundings. By emphasizing their interiors, they stand in sharp contrast to the Temples of Tyche and Palaimon-Melikertes, the Shrine of Sulis-Minerva, and the Rotunda at Athens, wherein their round forms are deliberately accented against rectilinear porticoes or precincts.323 In-

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319 Like the Temple of Palaimon-Melikertes, the Shrine appears to have stood in a rectangular precinct.
320 On reaching its platform, the Shrine is accessed via steps (see Hanson 1959, 72, for possible reconstructions based on Pannini and Piranesi).
321 Likewise, the late Republican Round Temple at Tibur (see Chap. IV #64) rests on an artificial extension of the city’s acropolis.
322 This may have provided a means of evoking Hellenistic Athens.
323 The Temples of the Nymphs at Argos and of Vesta, raised on an elevated podium, are comparable in so far as they stand out from neighboring rectilinear buildings.
between these extremes are the Shrines of Aphrodite and Liber Pater, which, by reflecting curved elements both built and natural, act in harmony with their environment.\footnote{When seen from behind (i.e. above the curved cavea), the same may be said for the Theater Shrine at Tibur. See Chap V, for the comparable Perirrhanterion and Shrine of Hercules.}

**BUILDING MATERIALS AND TECHNIQUES**

**Masonry techniques**

Like those of the late Republican and Julio-Claudian periods,\footnote{See Chaps. IV and V ‘Masonry techniques.’} Flavian and Antonine round temples either employed opus quadratum masonry or simulated it in their revetment. Although badly preserved, the walls of the Temples of Zeus Asklepios Soter at Pergamon (#27) and of Tyche at Side (#59), as well as of the Shrine of Liber Pater Commodianus at Portus (#29), appear to have consisted of ashlar blocks. The Temple of the Nymphs at Argos (#2) and the Rotunda at Athens (#5) incorporate poros blocks into their foundations and podia, but employ a marble veneer to visually unite them with their elevations.\footnote{For veneer and stucco work, also see ‘Pavements and wall revetment’ below.} The Pantheon’s (#50) pronaos, intermediate block, and the interior of its drum,\footnote{Bronze plates were used as veneer on both faces of the dome.} as well as the podia of the Temples of Asklepios and of Palaimon-Melikertes at Isthmia (#15), also used marble revetment, while the stucco-facing of the Temple of Fortuna Huiusce Diei (#38) may have been painted to resemble ashlar courses.\footnote{The exterior of the Pantheon’s drum may have been similarly decorated to link it with the pronaos and intermediate block as well as with the lower step rings of its cupola, revetted with marble plates.}

Beneath their revetment, several round temples employed opus testaceum or brickwork, a technique that was used in the Claudian Shrine of the Lares Augusti at
Ostia (#23). Brick filled out the walls of the Temple of Fortuna Huiusce Diei, may have formed the foundations of the Tholus of Cybele (#34), and comprised the walls of the Pantheon’s porch, intermediate block, and drum. The drum’s foundations and dome, like the foundations of the Temples of Asklepios and of Palaimon and the cupola of the Theater Shrine at Tibur (#65), were fashioned from poured concrete. Supported by wooden shuttering during construction, concrete bonded with layers of aggregate formed a monolithic mass that found favor, for its strength, versatility, and ease of construction, through the late Imperial period.

**Roofing techniques**

Several Flavian and Antonine round temples, especially those built in the provinces, follow late Republican and Julio-Claudian precedent in employing timber roofs. The Temple of Tyche at Side (#59) and the Shrine of Sulis-Minerva at Bath (#8), as well as the Temple of the Nymphs at Argos (#2), had conical roofs, formed, in the case of the Argive temple, from bands of leaf-shaped tiles decreasing in size towards its summit. In Italy, the Shrines of Aphrodite at Tibur (#63) and possibly of Liber Pater at Portus (#29) may have used conical roofs to reflect their closest architectural comparanda, the Temple at Knidos (#16) and Greek shrines like the Rotunda at Termessos (#62).

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330 See #50 above, for the Pantheon’s use of relieving arches to lighten the load borne by its drum’s foundations and walls.
332 Concrete construction was used in the drum of the Theater Shrine, the terrace beneath the brick nymphaeum and its Shrine of Aphrodite at Tibur (#63), and to some extent, in the foundations of the Rotunda at Athens (#5).
333 See ‘Roofing techniques’ below.
334 See Chaps. IV and V.
335 The monopteroi incorporated into the 160 AD nymphaeum of Herodes Atticus at Olympia use similar roof tiles. Schleif and Weber 1944, 73-4 and fig. 15.
336 See above.
Vaulted roofs or domes, possibly employed in the Temple of Fortuna Primigenia at Praeneste (#31), Agrippa’s Pantheon (#50), and Nero’s rebuilding of the Temple of Vesta (#57), find wider use in the Flavian and Antonine periods, wherein coins attest to domed roofs on the Temples of Vesta and Palaimon-Melikertes (#15), and the Shrine of Hercules (#41). Concrete domes, used to roof round bath buildings from the Late Republican period onwards, were incorporated into Imperial palaces under Nero and the Flavians. Hadrian used domes to great effect in his villa at Tibur and more significantly, in his rebuilding of the Pantheon. With an internal diameter double that of any previous dome, the cupola which crowns the Pantheon ranks it as one of the greatest technical feats of Roman architecture.

The Pantheon’s drum was constructed using six bands of aggregate, decreasing in weight towards the oculus of its dome. Exedrae and chambers embedded in its walls, together with relieving arches, also helped to reduce the mass of the drum, while the oculus, acting as a compression ring, and external step rings aligned with its base ensured the dome’s long-term stability. During construction, the dome was supported on a complex wooden scaffolding, which included molds

337 Domes were employed in baths at Baia, Pozzuoli, Misenae, and Cuma in the late Republican and Augustan periods, and again at Baia, Albano and Rome into the Antonine period. Sanpaolesi 1971, 14-6; Stierlin 1984, 60-3; Adam 1994a, 186-91. The late Republican or early Augustan Mausoleum of Caecilia Metella also included a dome, though set beneath a conical roof. De Angelis d’Ossat 1940, 250; Sanpaolesi 1971, 15.
338 For the domes of the Domus Aurea and the Domus Augustana, see Adam 1994a, 187-9.
340 Adam 1994a, 186 (chart).
341 The lightest aggregate, a volcanic lava stone from Vesuvius, was also used in the dome of the 3rd c. Mausoleum of Constantina. De Angelis d’Ossat 1940, 244-5.
342 Like the Pantheon, Domitian’s round bath building at Albano, incorrectly identified as a temple by Altmann (1906, 46 and 71), employed layers of aggregate and a brick and bronze ring around its oculus (cf. Vitr. 5.10.27-8). De Angelis d’Ossat 1940, 233 and 238. Adam (1994a, 181) suggests that the domes of the Central Baths at Pompeii were among the first to use this technique.
343 A series of rooms between the Pantheon and the Basilica Neptuni may have functioned as buttresses. Wilson Jones 2000, 191. All of these features worked together in stabilizing the dome despite stress fractures that appeared during construction.
344 Coarelli 1995k, 329.
for its coffers. Once plated in bronze, the coffers diffused light from the oculus, adding to the dramatic effects experienced by visitors entering the Pantheon’s drum.

The Temple of Zeus Asklepios Soter (#27), modeled after the Pantheon, included a rubble and mortar version of its dome, while the Rotunda at Athens (#5) was crowned by a brick cupola and the Theater Shrine at Tibur (#65) by a concrete dome. In Roman provinces outside of Italy, the materials and techniques used to construct domes were inherited from the capital as early as the Augustan period, though, as the Temple of Asklepios and the Rotunda at Athens demonstrate, were used to best effect from Hadrian’s reign.

**BUILDING COMPONENTS**

The foundations of Flavian and Antonine round temples follow late Republican and Julio-Claudian precedents. Like the Temple of Hercules Victor ad Portam Trigeminam (#44), that of the Nymphs at Argos (#2) comprised bands of radiating blocks laid out around a pit. The Temple of Palaimon-Melikertes (#15) similarly includes a pit, though set in concrete. Concrete is also employed in Hadrian’s Pantheon (#50), where he does not reuse Agrippa’s foundations, in the Temple of Zeus Asklepios Soter (#27), and in the terraces which support the Theater Shrine (#65) and the Shrine of Aphrodite (#63) at Tibur. With a ring of poros blocks set around a concrete core, the Rotunda at Athens (#5) combines both techniques, while the Tholus of Cybele (#34), if correctly identified with the ring found near the

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347 The Hunting Baths at Leptis Magna, ca. 200 AD, provide impressive evidence of the continued use of domes in the provinces after the Antonine period. Rasch 1985, 124-5.
348 See Chap. V.
349 The 3rd c. BC opus incertum foundations and favissa of the Temple of Vesta in the Roman Forum (#57) are similar.
350 The foundations of the Perirrhanterion (#51) are comparable.
Basilica of Constantine, introduces brickwork into the material repertory of Imperial foundations.

Above their foundations, the Shrine of Aphrodite, the Shrine of Sulis-Minerva at Bath (#8), and the Rotunda at Athens (#5) are likely to have employed a Greek-style krepis. A high Greek socle, comparable to that of the Monument of Lysicrates in Athens (#3), was used to support the Shrine of Liber Pater at Portus (#29), while reliefs show that the Temple of Vesta in the Roman Forum (#57) rose from a high podium by this date. The Temple of Tyche at Side (#59) stood on a comparable podium, fronted by steps, which was as typically Roman as the columnar porches and podia of the Pantheon and the Temple of Asklepios. In Greece, the Antonine Temples at Argos and Isthmia followed the Tiberian Rotunda at Corinth (#9) in their use of a square socle.

The few Antonine round temples to preserve moldings, column bases, and entablatures employ forms common to the late Republican and Julio-Claudian periods. Their column capitals are also drawn from this repertory, though they use all three principal orders. In addition to Corinthian, common to the majority of round temples, Doric, previously employed in the Monopteros at Pompeii (#28), appears in the Shrine of Aphrodite at Tibur (#63), and Ionic, known from the Temples of Roma and Augustus (#4) and possibly of Vesta in the Roman Forum, forms part of

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351 The Theater Shrine at Tibur rests directly on the terrace that defines its precinct.
352 Prominent examples of round temples that employed a krepis include those of Hercules Victor ad portam Trigeminam and of Roma and Augustus on the Acropolis (#4).
353 Scott 1999b, 127; cf. Tac. hist. 4.53 and above.
354 This is comparable to the late Republican podium of the Temple of Fortuna Huiusce Dies, which was not altered as part of its Flavian rebuilding.
355 See the relevant sections below.
356 See Chap. V.
357 See ‘The column capital’ below.
the Temple of Vesta’s Trajanic rebuilding and perhaps of the porch of the Theater Shrine at Tibur.\textsuperscript{358}

The majority of Flavian and Antonine round temples, as monopteroi and peripteroi, fit within the framework of earlier architecture.\textsuperscript{359} The few drums datable to these periods are not entirely without precedent. While the late Republican drum of the Temple of Fortuna Huiusce Diei (#38) was not dramatically altered by Domitian, that of the Pantheon, which inspired the Temple of Asklepios, may have recalled the plan of Agrippa’s building. Moreover, the Theater Shrine at Tibur resembles the Temple of Fortuna Primigenia at Praeneste (#31).\textsuperscript{360} Therefore, with the exception of the Pantheon, whose elevation marked a clear break with Julio-Claudian round temples, those built from the Flavian through the Antonine periods indicate a continuum from their predecessors.

\textbf{DECORATIVE DETAILS}

\textbf{The wall base molding}

Moldings preserved from the Hadrianic Pantheon (#50) and Temple of Zeus Asklepios Soter (#27)\textsuperscript{361} are stylistically related to those used in Julio-Claudian round temples.\textsuperscript{362} Along the base of the Pantheon’s intermediate block runs a molding, which echoes the form of its column and pilaster bases. Like them, it consists of a torus topped by a cyma recta, fillets, a cyma reversa, another fillet, and a torus. Inside

\textsuperscript{358} The capitals of the Temple of the Nymphs at Argos may have been Composite.
\textsuperscript{359} The form of the Shrine of Aphrodite at Tibur may copy that of the 4th c. BC Temple at Knidos (#16), see #63 above.
\textsuperscript{360} It is also possible that it recalled the problematic Shrine of the Lares Augusti at Ostia (see Chap. V #23).
\textsuperscript{361} Of the round temples which might have incorporated molding, none is extant from the Theater Shrine at Tibur (#65) nor the Temples of Tyche at Side (#59), of the Nymphs at Argos (#2), of Palaimon-Melikertes at Isthmia (#15), and of Liber Pater at Portus (#29).
\textsuperscript{362} See Chap. V.
the Pantheon’s drum, a second, simpler molding is preserved with a high fascia, a torus, a cyma recta, and an astragal. The torus figures prominently in the exterior molding of the Temple of Asklepios.\textsuperscript{363} Here a massive torus surmounted by a cyma reversa defines the base of the Temple’s drum.\textsuperscript{364} Of these, the Pantheon’s moldings produce a more elegant finish consistent with the rest of its design, while, through their use of both types of cymas, they recall Classical Greek and Augustan ornament.\textsuperscript{365}

**The column base**

Established as the canonical form in the Julio-Claudian period,\textsuperscript{366} the Attic base is used extensively in Flavian and Antonine round temples. Such bases are extant from the Temples of Zeus Asklepios Soter at Pergamon (#27), Tyche at Side (#59), Sulis-Minerva at Bath (#8), Liber Pater at Portus (#29), and the Nymphs at Argos (#2).\textsuperscript{367} Plainer than the Pantheon’s (#50) bases,\textsuperscript{368} they consist of two tori flanking fillets and a scotia.\textsuperscript{369} This sequence of design elements, present in the bases of the Temple of Roma and Augustus (#4) and the Rotunda at Corinth (#9), is used widely in Rome and the provinces.\textsuperscript{370}

**The column shaft**

\textsuperscript{363} Ziegenaus 1981, 32-3. No external molding is preserved from the drum of the Pantheon.
\textsuperscript{364} Wiegand 1932, 11.
\textsuperscript{365} See Chaps. IV and V.
\textsuperscript{366} See Chap. V.
\textsuperscript{367} The monopteroi in Herodes Atticus’ nymphaeum at Olympia also employ Attic bases. Schleif and Weber 1944, 72.
\textsuperscript{368} See ‘The Base Molding’ above.
\textsuperscript{369} This sequence is apparent from the best preserved bases at Side and Bath.
\textsuperscript{370} Two prominent examples are Hadrian’s Villa (MacDonald and Pinto 1995, 53 fig. 41) and his library at Athens (Wilson Jones 2000, 30 fig. 1.17).
Though less elaborate than some of the Julio-Claudian column shafts,\textsuperscript{371} those of Hadrian’s Pantheon (#50), the Temple of Zeus Asklepios Soter at Pergamon (#27), and the Rotunda at Athens (#5) were nonetheless striking. Unlike most round temples,\textsuperscript{372} they employed colored granite or marble monoliths between white marble bases and capitals.\textsuperscript{373} In addition to enlivening their columns, colored stones, which were difficult and costly to obtain, underlined the wealth and power of their founders.\textsuperscript{374}

**The column capital**

As in the Julio-Claudian period,\textsuperscript{375} the majority of Flavian and Antonine round temples favored the Corinthian order. Doric and Ionic were used sparingly,\textsuperscript{376} confined to a few select buildings at Tibur and Rome. The Shrine of Aphrodite (#63) that forms the centerpiece of Hadrian’s nymphaeum at Tibur employs the Doric order.\textsuperscript{377} Combining a broad abacus and compact echinus, the Shrine’s capitals may recall those of the Temple of Aphrodite at Knidos (#16).\textsuperscript{378} Similarly, the Theater Shrine at Tibur (#65) may have used the Ionic order to underline Hadrian’s interest in Greek architectural forms.\textsuperscript{379}

\textsuperscript{371} See Chap. V #4.
\textsuperscript{372} Of those which preserved column shafts, the remaining Flavian and Antonine round temples employed fluting and materials comparable to their bases and capitals.
\textsuperscript{373} The Arch of Constantine provides a later example of colored monoliths used to add contrast and visual interest to a monument. Wilson Jones 2000, 124.
\textsuperscript{374} This is especially true in the case of the Pantheon. Wilson Jones 1999, 2000, 194-5, and below.
\textsuperscript{375} See Chap. V.
\textsuperscript{376} Tuscan, a variation of Doric, is used most widely in Imperial amphitheaters. Wilson Jones 2000, 110 (list of examples).
\textsuperscript{377} Other Doric buildings in Hadrian’s villa include the tholus that topped the West Belvedere or viewing tower and the Ceremonial Precinct. MacDonald and Pinto 1995, 51-2 and 60.
\textsuperscript{378} See above for the debate surrounding the original order of the Temple at Knidos.
\textsuperscript{379} See #66 and above (Ligorio’s porch). The Teatro Marittimo of Hadrian’s villa also had an Ionic colonnade. MacDonald and Pinto 1995, 82-3.
More significantly at Rome, the Temple of Vesta in the Forum (#57), reconstructed as Ionic from the late Republican period,\textsuperscript{380} is depicted with the Ionic order on both Flavian coins and Trajanic reliefs. Its continued use of Ionic, rare in the Roman Forum, reflects tradition rather than contemporary taste.

Of the Flavian round temples, only the Perirrhanterion (#51) preserves Corinthian capitals. With a closely overlapping pattern of leaves,\textsuperscript{381} noted for combining rigid nerves and folded lobes, they recall Augustan capitals from the adjacent Temple of Apollo Medicus.\textsuperscript{382} As Flavian capitals, they are less organic,\textsuperscript{383} but do overlap the scrolling helices in a manner suggestive of natural growth.\textsuperscript{384}

The Corinthian capitals of the Hadrianic Pantheon (#50) also betray some Augustan influence, though through the medium of Trajan’s Forum.\textsuperscript{385} Like the Trajanic capitals,\textsuperscript{386} they employ ornament that is more structured than the lush, thickly layered growth of capitals from the Forum of Augustus.\textsuperscript{387} On the Pantheon’s column and pilaster capitals, the leaf forms appear fragile, spread in thin, vertical layers across a background distinct from the naturalistic ornament.\textsuperscript{388}

\textsuperscript{380} For 1st c. BC coins, which show the Temple, see #57 and Chap. IV.
\textsuperscript{381} Overlapping leaves form part of the Italic tradition known from the Corinthian capitals of the Temple of Hercules Victor \textit{ad Portam Trigeminam} (#44) and of the Sanctuary of Fortuna Primigenia at Praeneste. Leon 1971, 149.
\textsuperscript{382} See Viscogliosi 1996a, 45-7, 88-9, 108-9. Leon (1971, 149, 159-60, and 164; cf. Gros 1996a, 145) dates the capital fragment to a partial restoration of the Temple of Apollo after the fire of 14 BC. Consequently, he suggests that it may have been influenced by capitals in the Forum of Augustus.
\textsuperscript{383} Gros 2001, 484. Heilmeyer (1970, 44-7; cf. Viscogliosi 1996a, 46-7) points to parallels from Asia Minor, namely Corinthian capitals from the Temples of Apollo at Didyma and Augustus at Antioch, for the capitals of Sosianus’ temple (these are less closely reflected in the 14 BC capitals, see above).
\textsuperscript{384} As Heilmeyer (1970, 134-6) notes, these fit many of the characteristics of Flavian ornament, exemplified by capitals from the Domus Flavia (Leon 1971, 89 and pls. 29.2-3 and 30.1-3).
\textsuperscript{385} For the influences of the Forum of Augustus on Trajan’s Forum, see Gros 2001, 486 and above.
\textsuperscript{386} Heilmeyer (1970, 155 and 158-60; vs. Gros 1996a, 188-9 and above) suggests that the same workshop carved the capitals of the Forum of Trajan, the Pantheon, and the Temple of Antoninus and Faustina. Freyberger (1990, 55-6 nos. 95 and 100-1) adds capitals from the Hadrianic rebuilding of the Basilica Neptuni to this list.
\textsuperscript{387} Leon 1971, 142 and 165 pls. 61.1-2; Gros 1996a, 178, and cf. 2001, 487.
\textsuperscript{388} Heilmeyer 1970, 151-3, 158-9, and pls. 54-5.
The play of light and shade achieved by the Pantheon’s capitals\textsuperscript{389} is an important feature of the Corinthian capitals from the Temple of Zeus Asklepios Soter (#27). Here, the leaf forms are thin and vertical, effecting a contrast between their projecting lobes and deeply carved ridges and hollows. As Pergamene capitals, they introduce non-canonical forms into their design, like egg-and-dart molding,\textsuperscript{390} which reveal indigenous traditions of architectural ornament.\textsuperscript{391}

More canonical capitals from the Traianeum at Pergamon\textsuperscript{392} are reflected in contemporary examples from the Temple of Tyche at Side (#59). These show a vertical pattern of leaves with rigid nerves, pointed lobes, and hollows designed to accentuate light and shade across the surface of the capital.\textsuperscript{393} With striking similarities to capitals from Hadrian’s Temple of Venus and Roma,\textsuperscript{394} it is not difficult to believe that they were carved by the same or a similar workshop.\textsuperscript{395}

The remaining capitals preserved from Antonine round temples, namely of Sulis-Minerva (#8), Liber Pater (#29), and the Nymphs (#2), are not in sufficiently good condition for study.\textsuperscript{396} However, it is likely that they show many of the same traits adopted by Hadrianic capitals: vertical, somewhat schematic growth and a strong interest in light and shade.\textsuperscript{397}

\textsuperscript{389} Heilmeyer 1970, 147 and 168; Gros 1996a, 178.
\textsuperscript{390} This motif is also incorporated into the Ionic order of the Temple of Roma and Augustus (#4), see Chap. V.
\textsuperscript{391} Heilmeyer 1970, 164; Wilson Jones 2000, 153. Comparable examples may be found in the Harbor Baths and the Library of Celsus at Ephesos (Heilmeyer 1970, pls. 27.3 and 28.1-2).
\textsuperscript{392} Heilmeyer 1970, 167 pl. 27.1; cf. Gros 1996a, 182.
\textsuperscript{393} Gros (2001, 486 and 489) notes that the play on light and shade, absent from Flavian capitals, was reintroduced to provincial architecture under Trajan, possibly as a result of local workshops returning from Rome.
\textsuperscript{394} Freyberger 1990, 57 no. 107.
\textsuperscript{395} Koenigs and Radt (1979, 337-40) have proposed that the same workshop executed the capitals of the Traianeum and the Temple of Venus and Roma, and Strong (1953, 133) has noted the influence of Pergamene workshops on the architectural decoration of Side.
\textsuperscript{396} Although its capitals are no longer extant, the leaf acroteria of the Temple of Palaimon-Melikertes at Isthmia (#15) are consistent with those of Antonine capitals in their use of deep ridges, regular hollows and well-defined lobes.
\textsuperscript{397} In their poor state of preservation, it is difficult to say how far their design was influenced by Augustan or Pergamene models, cf. Gros 2001, 489-90.
The entablature

The Doric Shrine of Aphrodite at Tibur (#63) and the Ionic Temple of Vesta in the Roman Forum (#57) employed corresponding entablatures, while the majority of Flavian and Antonine round temples used Corinthian entablatures. The Corinthian entablature, distinguished from the Ionic by the presence of fully developed modillions, first appears in the Julio-Claudian period. While prototypes existed in the late Republic, the Tiberian Temple of Castor, with its S-shaped volutes elaborated by acanthus leaves, set the standard for the modillion cornice.

The Perirrhanterion (#51) takes its inspiration from an earlier source, namely the exterior frieze of the Temple of Apollo Medicus. Its double-sided frieze course displays laurel and acanthus, whose naturalistic forms recall the rich ornament of Apollo’s temple. This course, framed by Lesbian cymatia, surmounts a three-fasciae architrave and is in turn topped by a diminutive dentil course, a modillion cornice, and a row of bead-and-reel ornament.

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398 Although the Uffizi relief may show a Corinthian entablature surmounting the Temple of Vesta’s Ionic peristasis, this combination seems unlikely, cf. Wilson Jones 2000, 111-3 (on mixed orders).
399 Augustan examples may be found in the Temples of Divus Iulius, Saturnus, Apollo on the Palatine and in Circo, and Mars Ultor. Strong and Ward-Perkins 1962, 24-5; Gros 1976a, 200-1 and 234, and 1996a, 148-9.
400 For their origins and possible use in the Temple of Hercules Victor ad Portam Trigeminam (#44), see Chap. IV.
401 Strong and Ward-Perkins 1962, 25; Sear 1982, 67; Gros 1996a, 148; Wilson Jones 2000, 142, and below. Gros (2001, 494) suggests that this form was inspired by Classical precedents like the consoles used to crown the door of the Erechtheion at Athens.
403 The Temple of Fortuna Huiusce Diei (#38) may also incorporate acanthus spirals into its frieze, see Chap. IV.
404 Zanker 1988, 68; Viscogliosi 1996a, 48-9 figs. 45-6 and 48.
405 The three-fascia architrave is standard for Corinthian entablatures from the late Augustan period onwards. Strong and Ward-Perkins 1962, 18.
406 While the cymatia and bead-and-reel recall ornament from the Temple of Mars Ultor (Sear 1982, 63 fig. 34.27; Ganzert 1988, 121 Cat. 11), the modillions, which frame soffit panels (see below), are reminiscent of the Temple of Apollo Medicus (Leon 1971, 197 pl. 79.1 and 80.1; Viscogliosi 1996a, 51 fig. 49).
Both the exterior and interior entablatures of the Pantheon (#50) set a modillion cornice that is comparable to the Temple of Castor’s above a three-fascia architrave and a blank frieze course. Lesbian cymatia, bead-and-reel, and egg-and-tongue ornament, typical of early Hadrianic work, appear below the modillions and rosette soffits. Whereas the Perirrhanterion employed an elaborate anthemion, known from Flavian and early Augustan entablatures, the Pantheon’s blank frieze and more restrained decoration looks back to the Forum of Augustus.

By contrast, entablatures from the Temple of Zeus Asklepios Soter at Pergamon (#27) and the Temple of Tyche at Side (#59) are more ornate. At Pergamon, modillions with elaborate leaf motifs frame rosettes, while the cornice is decorated with dentils, egg-and-tongue as a frame for a wave pattern, and a band of lotus and palmette ornament. A better preserved entablature from the Hadrianic upper gymnasium employs richer decoration with egg-and-tongue used to frame its modillions and soffits.

Like the Pergamene palmettes which recall ornament from the Temple of Venus and Roma, many of the features used in the exterior entablature of the Temple at Side reflect styles prevalent in late Hadrianic Rome. Above a three-fascia architrave defined by bands of bead-and-reel, egg-and-tongue and elaborate Lesbian cymatia act as a frame for an anthemion frieze course. The entablature, which

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407 Leon 1971, 191 pl. 80.3.
408 These may have been inspired by cymatia from the Forum of Augustus (Ganzert 1988, 117 Cat. 4; cf. Leon 1971, 171 pl. 70.1, for comparable ornament from the Temple of Roma and Augustus at Ostia).
410 Leon 1971, 108 pls. 36.3 (Domus Flavia) and 37.2 (entablature found in the Via di Teatro Marcello).
412 These fragments come from above the drum’s entrance. Ziegenaus 1981, 62-3. What remains of the entablature from the Temple’s pronaos and interior employs more typical molding, including egg-and-dart and Lesbian cymatia, together with a blank frieze course and an S-shaped modillion cornice. Wiegand 1932, 12 and 14; Ziegenaus 1981, 47-9 and 60-2.
413 Koenigs and Radt 1979, pl. 117.3-4.
414 Gros 1996a, 181. Strong (1953, 136) suggests that the palmette was a common Asiatic ornament employed by Pergamene architects in Rome.
surmounts the pilasters, includes a more detailed frieze with heads of Tyche shown above garlands and putti.\textsuperscript{415} While the garlands, bead-and-reel, egg-and-tongue, and cymatia are features of the entablature of Hadrian’s Mausoleum,\textsuperscript{416} comparable heads appear in frieze courses from the Traianeum at Pergamon and the small peristyle temple at Side.\textsuperscript{417}

Though its carving is less skillful, the frieze course from the Shrine of Sulis-Minerva at Bath (#8) is similar in its subject matter, combining leaf ornament with depictions of animals. Of the remaining Antonine round temples to preserve entablatures, the Shrine of Bacchus (#32), like the Mausoleum and the round Temple at Side, employs bead-and-reel and Lesbian cymatia as part of its three-fascia architrave and figured decoration in its frieze course.\textsuperscript{418} The preserved fragment of the entablature from the Temple of the Nymphs at Argos (#2) lacks ornament,\textsuperscript{419} while the sima of the Rotunda at Athens (#5) consists of a dentil course surmounted by bands of floral calyxes and acanthus leaves,\textsuperscript{420} alternating with lion-head water spouts.\textsuperscript{421} This elaborate sima, reminiscent of examples from the Traianeum at Pergamon as well as late Hadrianic architecture in Rome,\textsuperscript{422} sets the Rotunda apart from early Antonine buildings, whose plain simas were drawn from the Augustan repertory.\textsuperscript{423}

\textsuperscript{415} Kleiner (1980, 37 and 42-3) proposes that this type of relief originated in Pergamon.
\textsuperscript{416} Strong 1953, 144 fig. 6.
\textsuperscript{417} Strong 1953, 132-3 figs. 4-5 and 137; Wegner 1992, 46; Gros 1996a, 190; cf. Kleiner 1980, 41 (a comparable late Republican relief from Sutri).
\textsuperscript{418} For the probable identity of this figure, see above.
\textsuperscript{419} The modillion cornice and lion-head water spouts mentioned by Roux (1957, 664 and above) have not been preserved for comparison.
\textsuperscript{420} The simas of the Rotunda at Corinth (#9) and the monopteroi at Olympia display similar ornament. Dinsmoor, jr. 1974, 417-9 n. 9.
\textsuperscript{421} Unusually, not all the water spouts are pierced and none connect to channels or gutters for the removal of rain water. Dinsmoor, jr. 1974, 419-20 and 424-5.
\textsuperscript{422} Good examples may be found in the Temple of Venus and Roma and the Mausoleum of Hadrian. Strong 1953, 128 fig. 3 and 144 fig. 6.
\textsuperscript{423} Strong 1953, 120 and 148.
**Cornice soffits and ceiling coffers**

The more elaborate Corinthian entablatures preserved from Flavian and Antonine round temples include soffit panels in-between the modillions of their cornices. These soffit panels contain rosettes, consisting of a single six-to-eight petaled flower in the cornices of the Perirrhanterion (#51), the Temple of Zeus Asklepios Soter (#27),\(^{424}\) and the Temple of the Nymphs at Argos (#2), and two overlapping flowers in those of the Pantheon’s (#50) pronaos and drum.

Rosettes also feature in the ceiling coffers of the Temple of Tyche at Side (#59). Consisting of a single, eight-petaled flower framed within a recessed panel, they are less elaborate than the ceiling coffers of the Temple of Hercules Victor ad portam Trigeminam (#44) and the Round Temple at Tibur (#64), which employ both flowers and acanthus plants.\(^{425}\)

Such ornament is absent from the coffers of the Pantheon’s dome and of the Shrine of Aphrodite at Tibur (#63). However, as the dome was originally revetted, rosettes, together with any elaboration of the coffers’ frames,\(^{426}\) may have been fashioned out of bronze.\(^{427}\) Considering the high level of detail possible in bronze work, coffers probably played a significant role in the Pantheon’s decorative program.\(^{428}\)

**Pavements and wall revetment**

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\(^{425}\) See Chap. IV. No coffers are extant from Julio-Claudian round temples.

\(^{426}\) The coffers of the Temple of Hercules Victor and of many prominent Julio-Claudian buildings, like the Temple of Concord (Wilson Jones 2000, 142 fig. 7.16), were elaborated with egg-and-dart molding.

\(^{427}\) By contrast, stucco may have comprised the Shrine’s ornament, cf: Ward-Perkins 1989, 119.

\(^{428}\) For their role in reflecting light, see above. Wilson Jones (2000, 142) notes the role soffits and coffers played in enlivening cornices or ceilings when seen from below.
Like their predecessors, Flavian and Antonine round temples employed opus sectile pavements as part of their decoration. Hadrian’s Pantheon (#50) provides the most conspicuous example, wherein a grid pattern containing circles and squares adorns the floor of its pronaos and rotunda. This pattern, aligned with the cardinal axes, is enlivened by colored stones, which appear in a similar arrangement in the drum’s wall revetment. These stones, drawn from throughout the Roman empire, not only underline Hadrian’s power and wealth, but also, in the context of the drum, place a greater emphasis on its dramatic effects than its structure.

White marble fragments and clamp holes suggest that a similar geometric revetment was used for the floor and walls of the Temple of Zeus Asklepios Soter (#27), while Ligorio notes the presence of a multi-colored pavement of interlocking rhomboids in the Theater Shrine (#65) at Hadrian’s Villa. Although nothing is extant of the Shrine’s pavement, a geometric pattern of gray marble has been reconstructed for its precinct. Similarly, pieces of white and colored marble found at the nymphaeum at Tibur formed part of its geometric pavement, which may have influenced the paving pattern used in the Shrine of Aphrodite (#63).

Following late Republican practice, stucco may have elaborated the exterior of the Pantheon’s drum and its brick cornices. Though stucco is a common

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429 See Chaps. IV and V.
430 The bedding layer and marble fragments found beneath the drum’s floor suggest that Domitian’s Pantheon had a similar geometric pavement. Ziolkowski (1999, 55; cf. La Rocca 1999b, 280) proposes that it may also have been comparable to the geometric flooring of Hadrian’s Basilica Neptuni.
431 See #50. The use of complex geometric patterns in conjunction with round spaces was first explored in the pavement and revetment of Nero’s Domus Aurea. Ward-Perkins 1989, 118.
432 Ziegenaus (1981, 45 and 65) has not been able to confirm the existence of the colored marble fragments mentioned by Wiegand (1932, 14).
433 MacDonald and Pinto 1995, 130.
434 For a description of this pavement, which skillfully conforms to the curvilinear shape of the Ninfeo Fede, see de Franceschini 1991, 140 and 449-50.
435 Although its pavement is no longer preserved, based on the nymphaeum’s, it seems probable that the Shrine employed opus sectile or mosaic work.
436 See Chap. IV. The Domitianic rebuilding of the Temple of Fortuna Huiusce Diei (#38) also used stucco on its walls, while Coarelli (1981a, 21) tentatively suggests that some of its opus sectile pavement may be preserved.
external facing for cupolas, bronze was employed for its dome. Like the Pantheon’s bronze revetment, the multi-colored marble and glass mosaics inside the cupola of the Temple of Asklepios belie its solidity and enhance the light effects achieved by its oculus.

**Statuary and reliefs**

As in the late Republican and Julio-Claudian periods, the sculpture and reliefs employed in Flavian and Antonine round temples reflected both their cults and the agendas of their founders. Hadrian’s Pantheon (#50) may have showcased images of Augustus and Agrippa in the niches of its intermediate block as well as statues of other deified emperors in the aediculae of its drum. Appropriate for a monument to the Imperial cult, these statues were complemented by an eagle and a *corona civica* on the pronaos’ pediment, which recalled Agrippa’s intention to elevate Augustus to the level of the gods. Similarly, the pronaos of the Theater Shrine at Tibur (#65) may have displayed a statue of Hercules, whom emperors favored for his role in supporting the Roman state.

Whereas nothing is known of the other statues exhibited in the Shrine’s pronaos and cella, the cult images of the Shrine of Aphrodite (#63) and of the Temples of Zeus Asklepios Soter at Pergamon (#27) and of Palaimon-Melikertes at Isthmia (#15) are attested by physical remains and iconographic sources. The copy of

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438 These statues are important features of Agrippa’s Pantheon, see Cass. Dio 53.27 (quoted in #50) and Chap. V ‘The Pantheon.’
439 Wilson Jones 1989a, 44-5, and 2000, 180; Ziolkowski 1999, 60. Parallels may be found in The tholos of the Sanctuary of Athena Pronaia at Delphi (#12), which Fiechter (1937, 313) believes was refitted with statues of Roman emperors, and in the nymphaeum at Olympia (see Schleif and Weber 1944, 54-61).
440 See Chap. V #50.
441 See Cass. Dio 53.27, and Chap. V.
442 See Coarelli 1987, 85-112 (important late Republican sanctuary of Hercules at Tibur)
Praxiteles’ Aphrodite discovered in the nymphaeum at Tibur, by linking the Shrine to the famous Temple at Knidos (#16), underlined Hadrian’s Greek tastes. His interest in the Greek world is also attested by the cult statue of Asklepios, with whom Hadrian was identified in the Temple at Pergamon.

Coins show that Palaimon on a dolphin formed the centerpiece of his Temple at Isthmia (#15), while Pausanias mentions statues of Palaimon, Leucothea and Poseidon in its precinct. Like the dolphin, which signals a pivotal point in the history of Palaimon’s cult, the boat illustrated on two reliefs from the Tholus of Cybele (#34) recalls the importation of the black stone of Magna Mater to Rome. The stone may have been incorporated into her cult image on the Palatine, wherein, as on the reliefs, she appeared seated on a throne flanked by lions. Similarly, like the heads of Tyche shown on one of its exterior friezes, the zodiac images displayed on the ceiling of the Temple at Side (#59) may be closely connected to the cult.

In addition to its statues and pedimental sculpture, the Pantheon incorporated reliefs depicting sacrificial implements, garlands, and candelabra into its decorative program. Displayed on the intermediate block, these reliefs recall decoration on the enclosure of the Ara Pacis, where garlands topped by paterae hang from bucrania. Not only are the motifs and symbolic content similar, but the richly detailed ornament

444 While this statue appears in the main exedra, the smaller niches may have contained bases or altars to other gods. Ziegenaus 1981, 45. Moreover, it seems probable that the pedimental sculpture included Athena and a giant, see above.
445 See above.
446 This theme, celebrating the dolphin which saved Palaimon from drowning (see above), is picked up by the acroterial sculpture.
447 Paus. 2.2.1.
448 Ov. fast. 4.273 fol. and 343 fol.; cf. Simon 1963c, 744-5, and 1966, 24-5. Though her cult appeared in Etruria, South Italy and Sicily in the early 3rd c. BC, it was introduced to Rome either directly from Phrygia or through Pergamon in 204 BC. Roller 1999, 263-71, 275-8, and 281.
449 Prud. perist. 10.156-60; Amob. nat. 7.49.
450 This statue, shown carrying a patera and a scepter, was discovered during excavations of the Temple of Magna Mater on the Palatine. Hülsen 1895b, 25-7; Esdaile 1908, 371-2.
451 See above.
452 Kleiner 1992, 90.
of the Pantheon’s reliefs looks back to Augustan models and by extension, the building’s origins.

**PROPORTIONAL ANALYSIS (Charts VI.1-8)**

Although Vitruvius can hardly be considered an authority on buildings constructed after his lifetime, many of the ideas which he expressed, particularly of the importance of symmetry and proportion in temple design, remained current in Roman society. Monopteroi built from the Flavian through the Antonine periods, like their predecessors, employed the 1:10 relationship between their lower column diameters and column heights recommended by Vitruvius.\(^{453}\) This ratio is echoed by most drums, while both the monopteral Rotunda at Athens (#5) and the peripteral Temple of Tyche at Side (#59) show a 1:1 correspondence between their column heights and total exterior measurements.

In terms of columnar proportion, the Theater Shrine at Tibur (#65) fulfills the first of two requirements for pycnostyle and the Shrine of Sulis-Minerva at Bath (#8), as reconstructed by B. Cunliffe, fits the second for systyle. The Pantheon’s (#50) porch columns, like those of the Shrine at Tibur, are close to pycnostyle with a 1 5/8:1 relationship between their intercolumnations and lower column diameters and, like the Shrine at Bath, resemble systyle with a total height 9 5/9 times their lower column diameter.\(^{454}\)

Vitruvius’ insistence on the lower column diameter as the determining factor for column design has more relevance in these periods. Not only does the Doric

\(^{453}\) This ratio is not applicable to the Doric Shrine of Aphrodite at Tibur (#63).

\(^{454}\) Wilson Jones (1989a, 49) suggests that systyle was intended in the Pantheon.
Shrine of Aphrodite at Tibur (#63) closely approximate his ideal relationships,\(^{455}\) but, when other elements of the columnar orders are compared to the lower column diameter, clear correlations emerge. With few exceptions, the base diameters are about 1 1/3 times the lower column diameters,\(^{456}\) while the base heights are one-half.\(^{457}\) Moreover, as in the Julio-Claudian period,\(^{458}\) the shaft height to lower column diameter ratio is close to 8:1.\(^{459}\)

There is more variation among capital diameters\(^{460}\) and especially among capital heights, which range from 5/8 to 1 2/5 times the lower column diameter. Even more divergent are the temples’ intercolumnations, interaxial widths and diameters. Moreover, Wilson Jones’ ‘rule’ of a 6:5 relationship between the column and shaft heights is only supported by the columns of the Pantheon’s exedras\(^{461}\) and of the intermediate block of the Temple of Zeus Asklepios Soter (#27).\(^{462}\) Though more popular in the Julio-Claudian period, this proportional relationship appears to have less relevance for round temple design than Vitruvius’ module.\(^{463}\)

Across the Flavian and Antonine periods, there is little correspondence between round temples’ structural elements and critical dimensions, although individual temples show some significant proportional relationships. Most famous is

\(^{455}\) Vitruvius’ guidelines are not valid for the Corinthian order, where, with the exception of the aediculae columns of Hadrian’s Pantheon, all are in excess of a 1:1 correspondence between their capital heights and lower column diameters.

\(^{456}\) Most range between 1¼ and 1½.

\(^{457}\) This ratio applies to the Pantheon’s porch and aediculae columns (cf. ‘Type B’ in Wilson Jones 1989a, 43), and the columns of the Temples of Palaimon-Melikertes at Isthmia and of the Nymphs at Argos (#2).

\(^{458}\) See Chap. V ‘Proportional analysis.’

\(^{459}\) See Wilson Jones 1989a, 43 (‘Type C’). Exceptions include the reconstructed columns of the Temple of the Nymphs at Argos, the aediculae columns of the Pantheon, and the Doric columns of the Shrine of Aphrodite.

\(^{460}\) The only correspondance may be found in the porch and exedra capitals of the Pantheon, which are 1 1/3 times their lower column diameters.

\(^{461}\) The Pantheon’s porch columns, as reconstructed by Davies, Hemsoll and Wilson Jones (see #50 above), would fit this relationship.

\(^{462}\) Though close, the columnar proportions of the Temple of Palaimon-Melikertes at Isthmia (#15), the Shrine of Sulis-Minerva, and the Rotunda at Athens are less reliable since they include reconstructed measurements.

\(^{463}\) Wilson Jones (1989a, 56-9) acknowledges some limitations of the 6:5 ‘rule.’
the Pantheon’s 1:1 correspondence between its cella interior, measured at the interaxial diameter, and its height. This correlation has inspired scholars to inquire into the principles that informed the Pantheon’s design. Among the more popular interpretations are those of K. de Fine Licht, H. Geertman, and M. Wilson Jones. While de Fine Licht sees the radius of the rotunda, divided into sixteen sections, as the factor which determines most elements of the Pantheon’s plan, Geertman favors a more complicated approach. First he inscribes a square into a circle corresponding to the cella wall. Then he adds a square of the same dimensions to include the Pantheon’s intermediate block and porch. Finally, he uses complex relationships based on the 1:1 ratio between the sides of the squares and their diagonals at the square root of two to account for Agrippa’s plan and the plan and elevation of Hadrian’s Pantheon.

Wilson Jones adopts a similar approach, but employs the interaxial diameter of the cella at 150 Roman feet as the circle into which he inscribes the first square. This allows him to align the second square with the centers of the porch columns instead of with the porch exterior. He then follows de Fine Licht in determining the location of the Pantheon’s exedrae and aediculae from the circle divided into sixteen radial measurements and their corresponding angles. In all three approaches, geometry provides a means of setting out the basic form of the Pantheon, while, as Wilson Jones notes, arithmetic, namely fractions of its 150 foot critical dimension, determines many of its parts.

464 Moreover, de Fine Licht (1966, 195-8) notes that the circumference of Hadrian’s Pantheon is approximately ten times the length of Agrippa’s, according to Beltrami’s reconstruction.
465 Geertman 1980, 206-17. Wilson Jones (2000, 93) remarks that the use of the square root of two in the Pantheon’s plan is logical so far as its drum is intersected by a square intermediate block and porch.
Taken as a group, the round temples built during the Flavian and Antonine periods are most closely related in terms of their columnar orders. Regarding their size, most were small, though they show a considerable range from the Tholus of Cybele (#34) with a floor space of nearly five square meters\(^{468}\) to the Shrine of Aphrodite, which exceeds two hundred.

**IV CONCLUSION**

Though firmly established by the end of the Augustan period,\(^{469}\) the movement that paid homage to Classical Athens began to evolve under the later Julio-Claudians.\(^{470}\) Augustan Classicism developed into an elaborate baroque style by the reign of Vespasian, who employed ornate ornament in many of his building projects.\(^{471}\) He and Domitian chose a more conservative style however for their rebuildings of Julio-Claudian round temples, most notably the Perirrhanterion (#51), whose links to the Augustan Temple of Apollo Medicus\(^{472}\) are underscored by its decoration.

In reaction to the florid ornament of the Flavians, Apollodorus returned to models like the Forum of Augustus in his design for Trajan’s Forum.\(^{473}\) This more severe style was also used in Hadrian’s early buildings like the Pantheon (#50), while many of his later works looked towards Asia Minor for their inspiration.\(^{474}\) A major

\(^{468}\) This dimension corresponds to the Domitianic foundations, which may be identified with this shrine (see #34 above).

\(^{469}\) See Chap. V 'Decorative details.'

\(^{470}\) Strong (1953, 121) notes precursors to the rich Flavian style in the ornament of the Temples of Castor and of Concordia.

\(^{471}\) Gros 1996a, 185.

\(^{472}\) See Chap. V and above.

\(^{473}\) Strong 1953, 120; Leon 1971, 127-41 and 159.

\(^{474}\) Strong 1953, 120-1 and 130; Gros 1996a, 185.
workshop from Pergamon,\textsuperscript{475} which seems to have constructed the Temple of Zeus Asklepios Soter (#27), may have accompanied Hadrian to Rome to build his Temple of Venus and Roma.\textsuperscript{476} Despite his penchant for Asiatic ornament, some of the last monuments begun by Hadrian imitated the rich variety of forms found in early Augustan architecture.\textsuperscript{477} These forms also inspired Antoninus Pius, who revived traditional styles in many of his projects,\textsuperscript{478} including his rebuilding of the Shrine of Bacchus (#32).

Like their eclectic ornament, the round temples of the Flavian and Antonine periods are notable for their range of locations. Moreover, many employ brickwork and concrete as well as domes, which may feature in select late Republican and Julio-Claudian temples. The dome appears to best advantage in Hadrian’s Pantheon, whose design, based on simple geometric and arithmetic relationships, had a far-reaching influence on round temple design.

\textsuperscript{475} Strong 1953, 137; Heilmeyer 1970, 165, cf. 168-9 (other workshops from Asia Minor active in Rome). However, Gros (2001, 487-8) urges that caution be employed when identifying workshops based on stylistic similarities.

\textsuperscript{476} Strong (1953, 121; cf. 138) includes the Mausoleum of Hadrian and the Hadrianeum among the monuments influenced by Asiatic architecture.

\textsuperscript{477} The interior of the Hadrianeum built after his death imitates ornament from the Basilica Ulpia. Strong 1953, 130 and 137.

\textsuperscript{478} The Temple of Antoninus and Faustina, begun by Antoninus Pius (Cassatella 1993, 46-7), includes classical ornament evocative of the Augustan period. Strong 1953, 121.
I INTRODUCTION

After the collapse of the Antonine dynasty, Septimius Severus seized control over the empire. From an architectural standpoint, his reign and the reigns of his sons, Caracalla and Geta, coupled extensive repair work with new building. While the repairs focused on fire damage in the Forum, the new foundations took the form of huge imperial baths and temples celebrating the dynasty’s origins.¹ Stylistically, most Severan work resembled Flavian architecture, its ornate decoration possibly inspired by Septimius Severus’ restoration of the Domus Augustana.²

Though the Eastern excesses of Caracalla’s successor Elagabalus brought the dynasty into disrepute, Alexander Severus restored some semblance of order, while completing several Severan repair and building projects. Following his death however, the empire rapidly fragmented, with legionaries in the provinces elevating their commanders to the status of emperors. Prominent among them was Aurelian, who, unlike most of his immediate predecessors, focused his building activity on Rome. His vast circuit of walls attests to the uncertainty of his times. This is underscored by the next significant set of emperors, who partitioned the Roman world along strict boundary lines.

As a by-product of dividing their rule, the joint Augusti Diocletian and Maximian, aided by the Caesares Constantius and Maximianus, built widely in the

¹ Ward-Perkins 1989, 132, and below.
provinces. Their successor Maxentius, Maximian’s son, however returned his focus to Rome, where he undertook a number of significant projects. Constantius’ son Constantine, on defeating Maxentius, resumed or re-dedicated much of this building work, prior to moving the empire’s capital to Constantinople in 330 AD.

While late third and early fourth century buildings show limited development in their ornament, they do incorporate technical advances. Chief among them are new methods of constructing domes, which enable Constantine’s architects to explore the lighting opportunities opened up by windows.

II DISCUSSION

The Severans: (193-235 AD)

Septimius Severus: (193-211 AD)

Septimius Severus’ vast building program comprised the restoration of monuments damaged in the Forum fire of 191 AD, additions to the Flavian palace on the Palatine, and significant new construction like his Temple of Hercules and Bacchus on the Quirinal. In conjunction with his projects at Rome, he commissioned a marble plan for the library of the Templum Pacis, which he restored, while, outside of Italy, he built widely in Lepcis Magna and saw the completion of the Sanctuary of Asklepios at Pergamon.

3 Though Diocletian rebuilt the Curia and constructed baths on the Viminal, his primary project was a palace at Split. Similarly, Constantius and Maximianus emphasized new construction in their capitals at Trier and Thessaloniki. Scar 1982, 263-8.
5 Some like the ‘Temple of Romulus’ (#52 and below) even reuse ornament from Flavian and Severan buildings.
6 See ‘Roofing techniques’ below.
7 Herodian. 1.14.4 and Cass. Dio 72.24. Most of this work was concentrated in the years 203-208 AD. Claridge 1998, 20.
8 Together with rebuilding the palace, he added the Septizodium, whose elaborate three-tiered design is characteristic of Severan architecture. Ward-Perkins 1989, 132 and below.
9 Ward-Perkins 1989, 128; Coarelli 1996m, 67-70.
The Mundus and the Temple of Vesta, Forum, Rome (#49 and 57)

To Septimius Severus’ reign may be attributed the reconstruction of two major Archaic foundations in the Roman Forum: the Mundus (#49) and the Temple of Vesta (#57). Fragments of the Mundus include brick foundations and marble blocks used to repair its Republican entablature. Contemporary with its rebuilding, steps were added to its precinct to allow the Mundus access from the south.

More extensive was the Severan reconstruction of the Temple of Vesta. Based on coins, Julia Domna, the wife of Septimius Severus, is thought to have taken charge of the project, which included rebuilding significant elements of the Trajanic Temple. As on the Uffizi and Lateran reliefs, the Severan Temple includes a podium with engaged plinths and columns. Instead of the Ionic order, Julia Domna employed Corinthian as illustrated on her coins, which also show the grillwork and domed roof known from the reliefs.

The Severan Temple, like the Regia and the Atrium Vestae until its 64 AD rebuilding, retains the eastern orientation of its predecessors. Resting on Republican foundations, its marble-revetted podium and plinths supported twenty Luna marble columns. These were mirrored by semi-columns attached to the interior and exterior of the cella wall. Above the colonnade were ceiling coffers and a Corinthian entablature, whose frieze displays sacrificial implements. While the Corinthian order is unique to the Severan Temple, these motifs may replicate earlier ornament as

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10 The foundations may date to the late Severan period. Coarelli 1995k, 95.
11 Prior to the Severan period, the pavement level to the south was raised considerably. Coarelli 1983b, 217.
12 See #57.
13 Alternatively, some elements may have survived the fire of 191 AD. Scott 1999b, 127.
14 See Chap. VI.
17 Lugli 1946, 206.
they find close parallels on a Roman denarius minted by P. Sulpicius Galba in 69 BC.\(^\text{18}\)

**The Abaton, Pergamon (#26)**

The Abaton (#26) built at Pergamon in ca. 200 AD recalls the Hadrianic Temple of Zeus Asklepios Soter (#27) in its plan and ornamentation. Located next to the Temple at the south-east corner of Asklepios’ precinct, its two-storied round form was obscured by a cistern and a covered portico spanning the south side of the court. Like the Temple and the Hadrianic Pantheon (#50), the Abaton’s greatest impact was achieved on entering its domed drum.\(^\text{19}\) The drum and its six horseshoe-shaped apses form the building’s upper level.\(^\text{20}\) Its lower level, which is without parallel, comprises three full and one half rings of walls and pillars roofed with barrel vaults. The first or innermost ring consists of a central core, supporting the floor of the upper level, while a series of seventeen pillars forms the second ring, and windows and archways comprise the third.\(^\text{21}\) The fourth, half-ring, is open to the sky and channels traffic around the north-west side of the building.\(^\text{22}\)

In addition to the portico, a cryptoporticus opens into the Abaton’s lower level.\(^\text{23}\) This level in turn gives access to the upper level by a complicated set of stairways.\(^\text{24}\) Like the Temple, the upper rotunda was decorated with marble revetment

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\(^\text{18}\) This coin, minted in honor of Vesta, shows a knife, a simpulum and an ornamental ax. Cody 1973, 47 pl. 5.8.

\(^\text{19}\) For the drum, see Ziegenaus 1981, 98-9, and ‘Roofing techniques’ below.

\(^\text{20}\) Ziegenaus 1981, 94-100.

\(^\text{21}\) Instead of windows on the south and east sides, the third ring is solid as it abuts the natural slope.

\(^\text{22}\) Wiegand 1932, 16-8; Ziegenaus 1981, 78-94.

\(^\text{23}\) Ziegenaus 1981, 86.

\(^\text{24}\) The stairways, which follow the Adyton’s NE face, are complemented by a ramp. Wiegand 1932, 19-20; Ziegenaus 1981, 82-7.
and mosaics, and its apses were flanked by pilasters. The layout of both levels coincides with what is known of Asklepios’ worship at Pergamon. While it seems likely that cures were effected on the lower level, using spring water piped through the cryptoporticus, the apses of the upper level may have functioned as medical consultation rooms. As an incubation site, the Abaton served as an ideal complement to the Temple of Zeus Asklepios Soter.

Geta: (211-212 AD)

Geta may have been responsible for a Temple in Greek Aigosthena (#1).

The Temple of Melampous, Aigosthena (#1)

Coins minted under Geta may illustrate a round Temple of the hero-god Melampous located in his sanctuary at Aigosthena (#1). Next to the domed monopteros shown on the coins is a tree entwined with a serpent, which F. Robert suggests has both chthonic and agrarian connotations. As a second set of coins may show Melampous suckled by a she-goat, such symbolism is appropriate in view of his upbringing and moreover, was reflected in his festivals or Melampodeia.

Caracalla: (211-217 AD)

25 Though no longer extant, the capitals have been reconstructed as Corinthian. Wiegand 1932, 19; Ziegenaus 1981, 97 and 100.
26 For the water distribution system, see Ziegenaus 1981, 88-92, 96 and 98.
27 Wiegand 1932, 30; vs. Robert (1939, 407-8), who points out that no ancient source attests to the building’s function, and suggests that the porticoes, which ringed the court, more closely resemble incubation areas at other sanctuaries.
28 See #1.
29 Robert 1939, 137; vs. Postolacca (1866, 336), who considers them symbolic of a tomb. However, as few parallels can be found for mausolea on Imperial coinage (see #52 below), Postolacca’s hypothesis is untenable.
30 Imhoof-Blumer and Gardner 1888, 9.
31 IG VII 219 and 223, cf. 207-8 (Melampodeion in which the festivals were held); Paus. 1.44.5, 2.7.8 and 8.18.7 (Melampous as a hero god).
Though mindful of his father’s restoration efforts, Caracalla focused on new construction, including his Baths and a temple to Serapis.\textsuperscript{32}

**The Temple of Vesta, Forum, Rome (#57)**

Under Caracalla, a coin series was issued to commemorate his mother’s rebuilding of the Temple of Vesta (#57).\textsuperscript{33} In addition to the Temple, a Corinthian monopteros topped by a domed roof, he or Julia Domna appears as a participant in the sacrifice that accompanied its re-dedication.

**Alexander Severus: (222-235 AD)**

Principally interested in the repair of older buildings, like the Flavian Amphitheater and the Temple of Isis, Alexander Severus completed the Baths of Caracalla,\textsuperscript{34} and oversaw the construction of lavish round temples at Rome (#35) and Ostia (#23).

**The Temple of Dea Dia, Rome (#35)**

A round Temple (#35) built under Alexander Severus crowned the sanctuary of Dea Dia, a large complex of buildings overseen by the priestly college, the Fratres Arvales.\textsuperscript{35} The cult of Dea Dia,\textsuperscript{36} one of the earliest in the city, was considered by Romans of the late sixth and fifth centuries BC to mark a limit of the *ager Romanus*.

\textsuperscript{32} Hist.Aug.Carac. 9.10. Sear 1982, 256; Gros 1996a, 188.
\textsuperscript{33} See #57.
\textsuperscript{34} Sear 1982, 260; Claridge 1998, 21-2.
\textsuperscript{35} This priesthood was drawn from the highest sector of society (Plin. *nat.* 18.6; Gell. 7[6].7). Pellegrini 1865, 10; Henzen 1868, iii-iv.
\textsuperscript{36} Otherwise unknown, Dea Dia may be related to Ceres. Birt 1845, 964-75; Henzen 1868, iv; Lanciani 1868c, 107.
or territory of Rome.\textsuperscript{37} This limit corresponded to the fifth milestone of the via Campana-Portuensis.\textsuperscript{38} Using ancient sources, principally the Annals of the Fratres Arvales, modern scholars have identified building remains at La Magliana as part of this sanctuary.\textsuperscript{39} A thorough study of these remains has enabled the site’s excavators, J. Scheid and H. Broise, to reconstruct its layout as well as the placement and appearance of its principal buildings.\textsuperscript{40}

The Annals of the priesthood are among the most important religious documents of the Imperial period.\textsuperscript{41} They date from 14 BC, when Augustus first dictated that the acts or religious practices of the Arvals be written down,\textsuperscript{42} to the late third century AD. The greatest concentration pertains to the Flavian period.\textsuperscript{43} These three periods, the Augustan, the Flavian and the Severan, also mark key moments in sanctuary’s building history. Though the cult of Dea Dia dates from the sixth century BC,\textsuperscript{44} the first signs of religious occupation are third century,\textsuperscript{45} and the first structures pertain to a major reorganization of the cult and its buildings in the Augustan period.

In the context of yearly purification rituals,\textsuperscript{46} the Annals point to the existence of four major buildings and a series of minor structures in or near the sanctuary. The

\textsuperscript{37} For the other limits of the \textit{ager Romanus} in this period, see Alföldi 1962, 187-213, and Scheid 1987, 583-5 and 592-4, and for the possible derivation of \textit{ambarvalia}, purificatory rites involving circumambulation, from \textit{arva}, meaning ‘boundary,’ see Varro \textit{ling.} 1.1.5, 85, Pellegrini 1865, 3, Henzen 1868, iii, and Scheid 1987, 585-6, and 1990, 99-100.

\textsuperscript{38} Patterson 1999, 135. For the sources which locate the \textit{lucus} of Dea Dia, namely mid-Imperial \textit{Fasti} and late Imperial martyrologies, and the topographical difficulties they present, see Scheid 1976, 639-47, and 1990, 96-101.

\textsuperscript{39} Abeken (1841, 121-3) was the first to locate the Sanctuary of Dea Dia.

\textsuperscript{40} Pending their publication of the Temple, Lanciani’s (1868c, 105-6) remains the best reconstruction.

\textsuperscript{41} Henzen 1867a, 229-47; De Rossi 1868, 25-6. Almost 240 fragments are extant dating from 28 BC to 241 or even 308 AD. Broise and Scheid 1987, 2-4.

\textsuperscript{42} Henzen 1868, iii.

\textsuperscript{43} De Rossi 1858, 69-71, and 1866, 55-6.

\textsuperscript{44} The cult’s links to Romulus, its function as a limit of the \textit{ager Romanus}, and a prohibition on the use of tools made of other materials than bronze in the \textit{lucus} (Macr. \textit{Sat.} 5.19, Serv. \textit{Aen.} 1.448, and \textit{CIL} I 603; cf. Henzen 1868, v) would suggest this date. Moreover, excavations in the area have revealed traces of occupation from the 7th-6th c. BC. Scheid 1987, 589-90.

\textsuperscript{45} Scheid 1987, 590, and 1990, 149.

\textsuperscript{46} The sacred grove was one of three locations for cult festivals. Some rites were enacted at the president’s house in Rome, while others took place at the Pantheon (\textit{CIL} VI 2041 = \textit{ILS} 229). Scheid 1990, 95.
major buildings include an *aedes Deae Diae*, a *Tetrastylum*, a *Caesareum*, and a circus, and the minor, a permanent altar, several *arae temporales*, *papiliones*, most likely living quarters,\(^{47}\) and a *balneum*.\(^{48}\) They also locate and describe some of these structures. The Temple of Dea Dia, situated within the *lucus*, is reached by ascending a *clivus* or slope from the *Tetrastylum*,\(^{49}\) which, together with the *Caesareum*, is sited at the base of the slope and near the circus, located *ante lucum* or outside of the grove.\(^{50}\)

Moreover, the Annals note that the Temple had a *fastigium*, usually translated as a pediment,\(^{51}\) and three doors or more likely, a door with three sections. They also indicate that it was preceded by an altar, that it contained at least two statues, and that it was large enough to accommodate twelve marble seats.\(^{52}\) They even establish some kind of timeframe for the Temple, which they note existed in 53 AD and was restored in 183, as well as for the *Tetrastylum* and the *Caesareum*, which first appear in Annals of the Domitianic period.\(^{53}\)

Remains of the sanctuary have helped to clarify the topographical information gleaned from the Annals. Prior to excavation, only the foundations of the Temple and a rectangular room which formed part of the *balneum* were visible. To these could be added Renaissance sketches of the *Tetrastylum* and the Temple.\(^{54}\) The sanctuary,

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\(^{47}\) Scheid 1990, 134-6.

\(^{48}\) Scheid 1990, 103; cf. 131-40, for sources dealing with the minor structures in the sanctuary.

\(^{49}\) On 19 or 29 May, the Arvalles completed the second day of the purification rites by celebrating morning rituals at the *Tetrastylum*, ascending to the Temple for afternoon rituals, and returning for further rites at the *Tetrastylum* in the early evening. Scheid 1990, 104-5. For a fuller description, see Henzen 1868, iv-vi, and Broise and Scheid 1993, 148-57.

\(^{50}\) Scheid 1990, 112 and 131-3.

\(^{51}\) Henzen 1868, xi; vs. Scheid 1990, 155.

\(^{52}\) See #35. The *subsellia marmorea* were used by the priesthood when they distributed bread to their *familia* and officials during the yearly festival. Scheid 1990, 105-9.

\(^{53}\) Scheid 1990, 109. For a discussion of the sources pertaining to the *Tetrastylum* and the *Caesareum*, see Abeken 1841, 121-3 (*Tetrastylum*), and Scheid 1990, 109-31. The *Tetrastylum* may have functioned as a banquet hall and the *Caesareum* as a statue gallery for divinized emperors. Pellegrini 1865, 10.

\(^{54}\) See #35 (Ligorio’s plan of the Temple). For references to S. Peruzzi’s drawing of the *Tetrastylum*, ca. 1570, see Scheid 1990, 159.
extending from the balneum and papiliones at its base to the Temple at its summit,\textsuperscript{55} lies underneath a densely populated suburb of Rome and is bisected by two modern roads and the train line.\textsuperscript{56} Despite the difficulties of the terrain, Scheid and Broise have fully excavated the balneum, an adjacent hemicycle of twelve rooms, identified as papiliones,\textsuperscript{57} and the Temple.

The Temple rises from a terrace on axis with the bath-and-housing complex and, in its present form, like the balneum and papiliones, dates to the reign of Alexander Severus.\textsuperscript{58} At least one wall, which forms the western border of the sanctuary, and the circus, which may be linked with masonry discovered below the balneum, are older.\textsuperscript{59} The Tetrastylum and Caesareum, possibly one and the same building, are harder to locate, though the evidence provided by the Annals and a drawing of Peruzzi may situate them at the bottom of the slope, where a Flavian platform and series of bases and busts of emperors were discovered in the sixteenth century.\textsuperscript{60}

The foundations of the Temple rest on an artificial terrace delimited by two walls.\textsuperscript{61} The terrace followed the predominant north-south axis of the sanctuary\textsuperscript{62} with the Temple’s entrance facing south towards the slope and the buildings at its base.\textsuperscript{63} Its well-preserved foundations\textsuperscript{64} comprise an annular gallery, with eleven

\textsuperscript{55} The martyrium of S. Generosa forms the sanctuary’s northern limit. Scheid 1990, 143.
\textsuperscript{56} Broise and Scheid 1987, 2.
\textsuperscript{57} For a fuller description of these buildings, see Scheid 1990, 144-7.
\textsuperscript{58} Scheid 1990, 143-8 and 155-8.
\textsuperscript{59} For the remains of the circus, see Pellegrini 1865, 7. Soundings near the Temple have uncovered finds from the 2\textsuperscript{nd} c. BC to the late Empire, while finds near the train station date to the 3\textsuperscript{rd} c. BC. Broise and Scheid 1985, 543-4, and 1986, 399; Scheid 1990, 148-9.
\textsuperscript{60} De Rossi 1856, 59-60; Scheid 1990, 158-65.
\textsuperscript{61} In view of their opus latericium construction, the terrace walls probably date to the Augustan period, when this technique was still in use. Adam 1994a, 146-7.
\textsuperscript{62} The sanctuary’s orientation according to the cardinal points is typical of Archaic sites, see Chap. III ‘Augural divination in Archaic Italy: defining the Roman templum.’
\textsuperscript{63} Scheid 1990, 143-4; Broise and Scheid 1993, 147-8.
\textsuperscript{64} The foundations owe their state of preservation to late Imperial decrees, which denounced the vandalism of temples located outside the city limits (cf. Cod. Theod. XVI 10.3, quoted by Henzen
niches and an entrance, bisected by two straight galleries, set at right angles. This configuration takes the form of a cross superimposed on a circle.

Very little is preserved of the Temple’s superstructure, but based on a few fragments and Ligorio’s drawing, R. Lanciani has reconstructed it as a drum faced with Corinthian pilasters supporting an entablature and a sloping roof. He sets pilasters along the cella interior flanking fifteen niches, alternately rectilinear and semicircular. Finally, Lanciani proposes that the Arval Annals discovered nearby be incorporated into the Temple’s stylobate. Though appealing, his hypothesis is untenable, as the preserved plaques are rectilinear and their number would presuppose a monument of a much greater width. According to the Annals, the Temple was preceded by an altar. This may be identified with a round altar, which depicts a serpent and bucrania flanked by garlands.

The Temple of Dea Dia served as the crowning element of a vast sanctuary complex with its roots in the Archaic period, but its greatest expansion under the Empire. Little is known of the Temple in the Republican period and under Augustus, when the sanctuary had an east-west as opposed to its Flavian and Severan north-south orientation, nor even in the Flavian period, when the Tetrastylum-Caesareum was constructed. In its final phase, the Sanctuary of Dea Dia was laid out with strict
symmetry that reflected the importance of the Temple and set it apart from the lower buildings that played subsidiary roles in the cult.\textsuperscript{73}

\textbf{The ‘Pantheon,’ Ostia (#24)}

The second round temple constructed during the reign of Alexander Severus was the ‘Pantheon’ at Ostia (#24). Built near the Forum, the ‘Pantheon’ is sited next to the Basilica.\textsuperscript{74} Its drum, masked by a portico, is preceded by a vast court that opens northward onto the Decumanus Maximus.\textsuperscript{75} The court, contained within the walls of the original Castrum,\textsuperscript{76} was first articulated in the late first century AD, when the Basilica was built.\textsuperscript{77} Once part of the Basilica complex, the ‘Pantheon’\textquotesingle s builders adopted the layout of its court and reused architectural elements from the peristyle court beside the “Byzantine” baths as aggregate in its boundary walls.\textsuperscript{78}

The court, accessed by steps, is spread out over two levels. At the lower level are six symmetrically placed drains, while at the higher, lining its long walls, are a series of statue niches topped by triangular and semicircular pediments.\textsuperscript{79} A door in the middle of the east wall, opening into the Basilica, is mirrored by a semicircular niche in the west wall. The court, paved and revetted in marble, served as an elegant atrium for the ‘Pantheon.’\textsuperscript{80}

\textsuperscript{73} Scheid 1990, 165-6 and 170-3; Broise and Scheid 1993, 147-8.
\textsuperscript{74} For the layout of this area, see Bakker 1994, 172.
\textsuperscript{75} Briggs 1930, 162.
\textsuperscript{76} Briggs 1930, 162; Calza et al. 1953, 152.
\textsuperscript{77} Pavolini 1989, 103.
\textsuperscript{78} Among them were fragments of late 1st c. AD Tuscan capitals and marble pieces reused in its pavement. Pensabene 1973, 31 nos. 16-7 and n. 1, and 1996b, 202-4 and 209-10.
\textsuperscript{79} Unlike the Roman Pantheon\textquotesingle s forecourt, the Ostian court lacked porticoes. Briggs 1930, 164 and 167.
\textsuperscript{80} Calza et al. 1953, 152; Pavolini 1989, 110.
Raised on a high podium, the ‘Pantheon’ is fronted by steps and two horseshoe-shaped niches for fountains and statuary. Its pronaos, which recalls the porches of the Pantheon at Rome (#50) and the Temple of Zeus Asklepios Soter at Pergamon (#27), consists of ten columns, mirrored by pilasters along the wall of its intermediate block. Narrower than the intermediate blocks of the rotundas at Rome and Pergamon, it accommodates two stairwells giving access to its roof.

A pavement of multi-colored marbles extends from the porch into the drum, articulated by three large rectangular niches, alternating with four smaller semicircular niches. The rectangular niches, which follow the cardinal axes, protrude beyond the curved wall of the rotunda. In addition to enlivening its exterior, through their depth, they helped to showcase the ‘Pantheon’s statues. Columns supported on pedestals beside the niches framed its statue display, which included an image of Alexander Severus. This statue, together with the materials and techniques employed in its construction, helps to date the ‘Pantheon’ to his reign. Moreover, like his portrait statue, the luxurious marbles used as revetment for its complex may indicate that the ‘Pantheon’ celebrated the Imperial cult.

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81 These niches, whose brickwork is not bonded with the podium, are likely to have been later additions. Briggs 1930, 164.
82 Based on their marble bases, Briggs (1930, 164-5) suggests that the pilasters and the wall of the intermediate block were revetted in marble.
83 MacDonald 1982, 98 and 100.
84 Alternatively, one well may have served as a storage area. Briggs 1930, 165.
85 As the walls are relatively thin for such a large building, it is more likely that the ‘Pantheon’ had a timber roof than a dome.
86 A small room, reached via steps, lies below the rectangular niche that shares an axis with the ‘Pantheon’s entrance. Briggs 1930, 166.
87 Comparable, though more dramatic, are the apses of the Abaton at Pergamon (#26), see above.
88 Briggs (1930, 165) suggests that, as in Diocletian’s Palace at Split, these columns helped to support the ‘Pantheon’s dome.
89 Pensabene 1996b, 201. Images of Gordian III and his wife were added to the ‘Pantheon’ at a later date, see #23 and Meiggs 1973, 81, and Pensabene 1996b, 201, for a comparable pair (S 4397-8) displayed in the Barracks of the Vigiles.
90 Pavolini 1989, 110. For other Severan work at Ostia, see Calza et al. 1953, 151-4, and Meiggs 1973, 146.
91 The sumptuous materials, as well as some features of the architectural decoration (see ‘Decorative details’ below), point to Eastern influences. Pensabene 1996b, 201.
Round temples refurbished during the Severan period:

**The Pantheon, Rome** (#50)

Below Agrippa’s dedicatory inscription is a second, which commemorates restoration work undertaken by Septimius Severus and Caracalla on the Pantheon in Rome (#50). While the extent of their work is unclear, it may have included reinforcing the masonry of the drum or restoring the marble revetment of its second tier.

**The mid-to-late third century AD:**

**Philip ‘the Arab’: (244-249 AD)**

The vast Sanctuary of Jupiter Heliopolitanus at Baalbek, begun in 16 BC, was completed under Philip ‘the Arab.’ His additions include a monumental propylon leading to the temple’s hexagonal and rectangular courts, and to the south of the complex, the round Temple of Tyche (#7).

**The Temple of Tyche, Baalbek** (#7)

Although known as the Temple of Venus, the round Temple at Baalbek (#7) is more likely to have commemorated Tyche. Coins minted under Philip ‘the Arab’

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92 Meiggs (1973, 81; cf. Pensabene 1996b, 201) suggests that Alexander Severus made financial contributions to its construction.

93 For the political motivations which may have fueled this inscription, see de Fine Licht 1966, 190.

94 Cracks appeared in both the drum and the dome soon after Hadrian’s Pantheon was built. de Fine Licht 1966, 190.

95 Strong 1953, 119 n. 5.

96 Though his cult is attested as early as the 6th c. BC, Jupiter’s complex was begun after Baalbek became a Roman colony. Sear 1982, 245; Ward-Perkins 1989, 314.

97 The hexagonal forecourt may be contemporary with the propylon. Ward-Perkins 1989, 314; Gros 1996a, 190.
show a Tychaion that bears a striking resemblance to this building. As on the coins, the Temple is fronted by a porch, whose eight Corinthian columns, arranged in two rows, support a triangular pediment. The pediment was curved above the wide central intercolumnation that provides access to the cella from the porch’s three-tiered steps.

While the Temple’s foundations and the podium beneath its porch are rectangular, the cella rests on a curved extension, whose scalloped edges correspond to plinths supporting the four columns of its peristasis. These columns, with five-sided Attic bases and Corinthian capitals, are mirrored by pilasters, which flank five aediculae embedded in the cella wall. A garland and putti frieze runs above the aediculae, while inside the cella, a socle, fourteen half-columns and cornices define two tiers of decoration. Of these tiers, the lower may have accommodated statue bases in-between the columns and the upper includes five niches topped by alternating triangular and semicircular pediments. A Corinthian entablature, which corresponds to the entablatures of the porch and the drum exterior, runs along the base of the cupola.

The roofing system employed by the Temple is highly unusual. A sloping wooden roof probably extended above the columns and coffers of the porch as far as

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98 While the coins may suggest that the Temple contained a cult image (see Statuary and reliefs below), it has not been found. Wiegand 1925, 96.
99 The central columns of the back row are attached to the cella wall. Wiegand 1925, 92.
100 Wiegand (1925, 99 and 105) places a relief depicting an eagle in flight, comparable to the antefix block of the Temple of Hercules Victor ad portam Trigeminam (44), above the Temple’s door.
101 For the Temple’s complex stair arrangement, see Wiegand 1925, 93-5.
102 For the podium’s base and crown moldings, see The base molding below.
103 The aediculae, whose semi-domes are ornamented with birds, are flanked by Composite pilasters. Wiegand 1925, 99.
104 The Propylon of the Sanctuary of Jupiter at Baalbek also employs two tiers of decoration. Wiegand 1925, 109.
105 The repetition of motifs in the interior and exterior entablatures helps to visually unite the building. Wiegand 1925, 93 and 104, and see The entablature below.
106 This junction of elements features in the round exedras of the altar court at Baalbek. Wiegand 1925, 109.
the entrance wall. Here stone blocks continued its course to the center of the cupola. Disguising its vaulted ceiling, these blocks fanned out above the drum.108

Besides its shape, the roof is notable for its use of ashlar blocks, which also feature in the Temple’s podium and drum.109 In terms of their decoration, its podium supports a multi-colored marble or mosaic pavement,110 while the blocks of its drum are carved with rich ornament, a distinctive feature of the Temple. Also noteworthy are the scalloped edges of the podium, whose undulating effect is enhanced by a repetition of columns, pilasters, and aediculae, and the cella’s elaborate two-tiered interior. These design elements lend the Temple a baroque quality shared by the Antonine Temple of Bacchus and the Temple and forecourts of Jupiter at Baalbek.111

As a dedication to Tyche, it recalls the Temple of Tyche at Side (#59) as well as Tychaia shown on coins minted throughout Asia Minor.112 Though more elaborate, its plan, combining a rectangular porch and a drum, is similar to the Temple at Side as well as to the Temple of Fortuna Huiusce Diei at Rome (#38).113 However, as its porch is sizable enough to conceal its drum, it also takes inspiration from Hadrian’s Pantheon (#50).

Trebonianus Gallus (251-253 AD):

The reign of Trebonianus Gallus saw little new building beyond a possible Temple of Juno at Rome (#45).

107 More than disguising it, the entrance wall, set parallel to the steps, disrupts the circularity of the drum. Wiegand 1925, 98-9.
108 For alternative reconstructions, see Wiegand 1925, 105-6.
109 Wiegand 1925, 96-7. Similarly, the portico fronting the Temple of Jupiter employed stone vaults. Gros 1996a, 191.
110 Wiegand 1925, 96.
111 Gros 1996a, 190.
112 See Chap. VI #59.
113 See Chaps. IV #38 and VI #59. Godfrey and Hemsoll 1986, 209 n. 71.
The Temple of Juno Martialis, Rome (#45)

Coins minted under Trebonianus Gallus in 251 AD\(^{114}\) attest that a Temple of Juno Martialis (#45), otherwise unknown from literary and archaeological sources,\(^{115}\) existed in Rome. Her epithet *Martialis* may signify Juno in her capacity as the mother of Mars\(^{116}\) or more likely, may indicate that her Temple was sited in the Campus Martius, possibly near a temple to Mars.\(^ {117}\) Alternatively, as P. Hill suggests, it may locate her Temple in the Campus Martialis at the base of the Caelian.\(^ {118}\)

The coins depict Juno Martialis inside a Corinthian monopteros. Her cult figure, shown enthroned with a globe and ears of corn in her hands and a peacock at her side, is accompanied by two figures interpreted as children or herms.\(^ {119}\) The Temple itself consists of steps, columns and an arched entablature hung with garlands. A dome, encircled by antefixes, rises from the entablature and is topped by an acroterial ornament.

To explain its absence from the sources and the brevity of its depiction on coins, D. Brown has suggested that the Temple was a temporary construction.\(^ {120}\) However, it seems more probable that the Temple was planned, but never built, like the Capitoline Temple of Mars Ultor (#46).\(^ {121}\)

**Aurelian: (270-275 AD)**

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\(^ {114}\) The legend appears in both its nominative and dative forms. Alföldi 1955, 62.

\(^ {115}\) Steinby 1996a, 123.

\(^ {116}\) Küthmann and Overbeck 1973b, 72; Roscher 1890-1897, 586. Alföldi (1955, 63-5) speculates that *Martialis* either may signal Juno as the female counterpart of Mars or Apollo Salutaris, or may refer to some historical event.


\(^ {118}\) Hill 1989, 17-8.

\(^ {119}\) Alföldi 1955, 64.

\(^ {120}\) Brown 1941, 128. It would have a parallel in a wooden tholos was re-erected yearly to mark the festival of Zeus Sosipolis at Magnesia on the Meander. Kern 1900, no. 98 (inscription); Robert 1939, 70-2; Will 1951, 239.

\(^ {121}\) See Chap. V #46. This idea may be supported by the garlands, which, Alföldi (1955, 63-4) suggests, commemorate special sacrifices connected with the Temple’s (intended) inauguration.
Aurelian undertook two major building projects at Rome. By means of the first, a circuit of walls, he dramatically increased Rome’s defensive capabilities, while with the second, he commemorated Sol (#53), the god who oversaw his military victories.122

The Temple of Sol, Rome (#53)

Unlike Elagabalus’ temples to Sol Invictus,123 which celebrated a Syrian cult considered excessive by the Roman people,124 Aurelian commemorated an indigenous sun cult in his Temple at Rome (#53).125 Its foundation formed part of a three-step plan of religious reform126 initiated after his victory at Palmyra in 272 AD.127 These steps consisted of the official recognition of Sol as the supreme god of the Roman Empire, the construction of the Temple of Sol and the introduction of the Agones Solis,128 and the creation of a college of pontifices Dei Solis.129 The first of these

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122 Moreover, Sol was widely worshipped in the provinces, whose support Aurelian sought to re-unify the empire. Hautecoeur 1954, 145-56 and 168-70.
123 In addition to many provincial temples, he built a temple to Sol on the Palatine known as the Elagabalum (Hist. Aug. Heliog. 1.3.6; Aur. Vict. Caes. 23; Herod. 5.5.8; Chronogr. a. 354, p. 147 M; Hier. chron. a. Abr. 2291) and another ad Spem Veterem (Hist. Aug. Heliog. 13.4-5 and 14.2-3; Herod. 5.6.6). Halsberghe 1972, 74-6, and 1984, 2186-7.
124 Born into a religious family at Emesa, Elagabalus, a high priest of Sol, hoped to establish Sol’s primacy over Jupiter Optimus Maximus at Rome. In addition to lavish temples, he instituted purificatory rituals involving abstention from pork, circumcision, and most notably, human sacrifice. Halsberghe 1972, 84-9.
125 Calzini Gysens and Coarelli 1999, 331-3. While its Eastern origins are undisputed, the cult of Sol, like those of Magna Mater and Isis, was integrated into the Roman pantheon at an early date. Halsberghe 1972, 26-37 and 45-56, and 1984, 2181-4. However, some sources (Hist. Aug. Aurelian. 25, and Zos. 1.61.1) still identify Aurelian’s cult with Syrian Baal.
127 As he claimed that a vision of Sol had ensured his success, Aurelian began to show his devotion in Palmyra, where he restored the Temple of Sol damaged during his attack. Halsberghe 1972, 133, and 1984, 2195.
129 Hist. Aug. Aurelian. 35.3; CIL VI 501, 846, 1397, 1418, 1673, 1739, 1740, 2151, and X 5061. For what little is known about the priesthood, see Homo 1904, 187-8, and Halsberghe 1972, 144-7.
reforms, celebrated on coin issues, elevated the status of Sol and Aurelian as his earthly personification, the second ensured that Sol would be housed and celebrated accordingly, and the third determined that his cult would be durable.

Aurelian’s Temple of Deus Sol Invictus, dedicated in 275 AD, can be located and described based on literary sources, Renaissance drawings and archaeological remains. The sources place the Temple in Regio VII and more specifically, in Campo Agrippae. Moreover, the Regionary Catalogues locate it in the vicinity of the Forum Suarium, the site for pork distribution, and the Cohortes Urbanae, a supervisory body in charge of pork and wine. This fits well with another reference to the Temple of Sol and an inscription discovered near S. Silvestro in Capite, which remark on cut-price wine stored in the Temple’s porticoes. Though not precisely located, this depot seems to have been sited near S. Silvestro.

In addition to noting the importance of its porticoes, the sources remark on the Temple’s splendor. Moreover, this opus magnificentissimum may be linked with a series of Renaissance drawings that attest to its grandeur. R. Lanciani was the

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130 These coins (RIC V.1 301 no. 319-22) depict a bust of Sol with a radiating crown on the obverse and Aurelian with a scepter and patena sacrificing by an altar on the reverse. Homo 1904, 184-5; Sotgiu 1975, 1048.
131 Aurelian was the first emperor to take the title Deus during his lifetime, see Homo 1904, 191-2, Sotgiu 1975, 1043-4, and Halsberghe 1984, 2200 (for coins and undated inscriptions).
132 See #53.
133 Not. Reg. VII, 111, 172 VZ 1; Chronogr. a. 354, p. 148 M.
134 For these buildings, see Hülsen 1895a, 47-9, and Torelli 1992, 119-22. It was Aurelian’s policy to distribute wine, oil, bread, and pork to the Roman people (Hist. Aug. Aurelian. 35.2 and 48.1).
Richardson, jr. 1992, 363.
136 The inscription (CIL VI 1785 = 31931) notes that stocks of vina fiscalia were transported to the Temple from an area ad Ciconias Nixas. For this area, see Platner and Ashby 1929, 111, and Virlouvet 1995, 56-9; vs. Flambard (1987, 191-201; cf. Lega 1993, 268), who sees it as a combination of two distinct toponyms.
137 Wine was also stored in the late Republican porticus Minucia Frumentaria. Virlouvet 1995, 55 and 146.
138 Hülsen 1895a, 50; Coarelli 1982, 48.
140 Hist. Aug. Aurelian. 1.3, 25.6, and 39.2; Eutr. 9.15.1; Aur. Vict. Caes. 35.7; Zos. 1.61.
first to publish two drawings by A. Palladio, which have proven indispensable to the study of Aurelian’s Temple. The plan shown on the first drawing illustrates two large courts joined by a small square court. The first large court is oblong with two semicircular apses and four openings at the juncture of the apses and the side walls. A single colonnade is attached to the interior of walls, while double columns mark the openings. The second large court is rectangular with three projecting niches on three sides of its perimeter wall. This wall encloses a round temple with a three-stepped krepis, sixteen columns, and two openings along the long axis of the complex. The elevation illustrated on this drawing is two-storied with columns flanking niches on both stories together with a column of double height, which marks off an arched opening. The elevation on the second drawing is strikingly similar, but adds alternating flat and triangular lintels above the upper order of columns. Palladio identified the first drawing with gardens near the via Flaminia and the second with a basilica of Domitian.

Accepting Palladio’s interpretation of the remains, Lanciani proposed a link between the gardens and the horti Largiani or the nymphaeum Iovis located in Regio VII. He identified the ruins of a large building whose stairs followed the slope of the Quirinal with Aurelian’s Temple. C. Hülsen, by contrast, considered the structures on the Quirinal as part of Caracalla’s Temple of Serapis, and connected Palladio’s drawings with the Temple of Sol. He interpreted Palladio’s plan as two porticoes, the first apsidal and the second rectangular, leading to a large rectangular temple

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141 RIBA X 17r.
142 As the round temple lacks measurements, scholars from Lanciani (1894) to Calzini Gysens and Coarelli (1999) have doubted the veracity of Palladio’s reconstruction, see below.
143 Diametrically opposed entrances also feature in the Skias at Athens (#6) and the macellum tholus at Aezani (see De Ruyt 1983, 23-4).
144 RIBA XV 11v.
145 Lanciani 1894, 300-5, and 1895, 94-101; vs. Calzini Gysens and Coarelli (1999, 331-3), who note that the building on the Quirinal is located in Regio VI.
146 Hülsen 1894, 393-4, and 1895a, 39 and 51-4; cf. CIL VI 570.
absent from the plan.\textsuperscript{147} This style of complex, he suggested, recalled the Temple of Jupiter at Baalbek.\textsuperscript{148} Moreover, based on Palladio’s topographical notes and the sources which help to site the Temple,\textsuperscript{149} Hülsen located it near S. Silvestro in Capite. He assigned it a North-South orientation along the via Lata in the area bordered by the via del Gambero, the via dei Condotti, the via Borgognona, the via Bocca di Leone, and the Piazza S. Silvestro.\textsuperscript{150}

More recently, F. de Caprariis and M. Torelli have suggested an East-West orientation for the complex.\textsuperscript{151} Archaeological remains found near S. Silvestro seem to endorse this hypothesis. These include \textit{opus quadratum} walls seen by Piranesi at the intersection of the via della Vite and the via del Moretto, which may constitute the North-East corner of the rectangular court, and peperino walls and columns discovered along the via della Vite,\textsuperscript{152} possibly its Northern perimeter.\textsuperscript{153} In addition, most buildings in the area adopt an East-West orientation,\textsuperscript{154} providing reason to support de Caprariis’ and Torelli’s conclusions.

Like Hülsen’s ideas regarding the Temple’s orientation, his views on the articulation of its complex have been called into question. F. Castagnoli employed drawings by P. Ligorio and Renaissance maps to determine the layout of the Temple

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\textsuperscript{147} Hülsen (1895a, 40; cf. Calzini Gysens and Coarelli 1999, 331-3) considered the round temple a figment of Palladio’s imagination.
\textsuperscript{148} Hülsen 1895a, 41-4. Richardson, jr. (1992, 364; cf. Lugli 1938, 281) speculatively identifies the Temple with a rectangular building found near the Campus Martius in 1794. As comparanda, the Temple of Sol alongside the Circus Maximus, described by Tacitus as \textit{vetus} (Tac. \textit{ann.} 15.74.1, cf. Ciancio Rossetto 1993, 276; vs. Tert. \textit{spect.} 8, and Turcan 1958, 257-62), was probably rectangular as was Probus’ depiction of a temple to Sol Invictus (\textit{RIC} \textit{V.2} 55 no. 354, 62 fol. nos. 414-7, and 74 nos. 536-8; Hill 1989, 18 fig. 16, but see below). Castagnoli (1978, 385-6) does not consider this image representative of Aurelian’s Temple.
\textsuperscript{149} See above, \#53 and Urlichs 1888, 98.
\textsuperscript{150} Hülsen 1895a, 57 pl. 4.
\textsuperscript{152} Hülsen 1895a, 55-8; Torelli 1992, 117-8; Calzini Gysens and Coarelli 1999, 331-3. For the walls, see \textit{CAR II} 162 no. 79.
\textsuperscript{153} Torelli (1992, 116-8; cf. Hülsen 1895a, 40-1) locates the S limit between the via di S. Claudio and the via delle Convertite, near the end of the Piazza Colonna. If his reconstruction is correct, S. Silvestro in Capite lies over the remains of the small square court, which may have been gardens in the 14\textsuperscript{th} c. (when the church was known as \textit{inter duos hortos}, cf. Calzini Gysens and Coarelli 1999, 331-3).
\textsuperscript{154} Torelli 1992, 112.
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complex. These include a plan and an elevation of a complex identified by Ligorio as the “Septa Tributa” and three additional elevations. The first drawing illustrates a rectangular court with a monumental entrance projecting from one wall and a series of three niches in each of its remaining walls. The niched walls are fronted by a portico. At the center of this court is a temple with a columnar porch, a square intermediate block, and a circular cella.156

Castagnoli noted the columns excavated near the via della Vite as evidence for an internal portico, even if lacking on Palladio’s plan,157 and the repetition of a round temple on both plans as proof that the Temple of Sol was round.158 Although Ligorio’s drawing makes no allusions to Palladio’s square and apsidal courts, the striking visual correspondences between the rectangular court illustrated on Palladio’s drawing and the complex shown here, together with the similar dimensions ascribed to both structures,159 makes Castagnoli’s connection compelling.

Three elevations with strong similarities to Palladio’s may be connected with this complex. The first is two-storied with half-columns flanking niches and topped by triangular pediments on the lower level, together with an entrance arch marked off by columns.161 The second shows a niche or apse framed by two monumental entrances, which is decorated with an ornamental colonnade surmounted by alternating triangular and segmented lintels. While Ligorio cautiously refers to

155 Cod. Turin. a. II 3 J. 16.
156 In addition to the Hadrianic Pantheon (#50), the plan closely recalls the Temple of Artemis at Stymphalos (#61).
159 Castagnoli 1978, 373, and see #53.
160 Coll. Albani-Dal Pozzo 10805 at Windsor.
161 The sketchy upper level seems to have included windows.
162 Coll. Albani-Dal Pozzo 10805 at Windsor.
these elevations as illustrating a “basilica” or “temple,” he assigns the third, wherein columns flank niches with comparable lintels, to the Temple of Sol.

Also relevant to the identification of the “Septa Tributa” and Aurelian’s Temple of Sol, as well as to a greater understanding of its layout, are a series of Renaissance maps, which show the area around S. Silvestro. These include two maps of Ligorio, one of which, ca. 1553, illustrates two unidentified Saepta, while the other, ca. 1561, depicts the “Septa Tributa,” the “Septa Curiata,” and the “Septa Centuriata.” They are echoed by maps of Panvinio, Du Pérac, and Cartaro, wherein all three Saeptas have an East-West orientation. While the “Septa Tributa” occasionally includes a rectangular temple, on Cantaro’s plan, a round temple appears inside the “Septa Curiata.” Moreover, most maps locate the “Basilica Domitiana” and an “Arcus Novus” or “Claudij” along the façade of the Saepta Curiata. Torelli connects the “Arcus” with the Arco di Portogallo, which, he suggests, may have functioned as a monumental entrance for the Temple complex.

Like the Hadrianic arch, the rectangular court may represent a rebuilding of an earlier structure, possibly the Porticus Vipsania, erected by Agrippa and his sister Vipsania Polla. To Aurelian’s reign may be attributed fragments of

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163 Platner (cited in Castagnoli 1978, 377-8) identified these with the hemicyles of Trajan’s Markets.
164 BNP Cod. Ital. 1129, c. 315.
165 Moneti 1993a, 160 fig. 9 and 62.
166 See Castagnoli 1978, 376 fig. 5 (Ligorio, Cod. Turin).
167 Calzini Gysens and Coarelli (1999, 331-3, and see above) link the “Septa Curiata” and the “Septa Centuriata” with the Temple of Sol and the “Saepta Tributa” with the Forum Suarium.
168 This features on the maps of Ligorio (ca. 1561), Panvinio (ca. 1565), and Du Pérac (ca. 1574).
170 The main exception is Panvinio’s map (ca. 1565).
171 Torelli 1992, 118-9. However, as the arch was free-standing, this suggestion is difficult to support.
172 Coarelli 1995k, 294.
173 As depicted on a 17th century drawing by A. Giovannoli, this structure consists of stone and brick work, whose Diocletianic brick stamps suggest that it was rebuilt under his or Constantine’s reign. Moneti 1990, 14-6 figs. 9-10; de Capraris 1991-1992, 179-80.
architectural sculpture discovered near S. Silvestro. They include part of the Temple’s or portico’s architrave, frieze and cornice, whose ornament is evocative of the Roman East. Similarly, the two tiers of statue niches illustrated on Palladio’s and Ligorio’s elevations recall prominent provincial buildings like the Severan Basilica at Leptis Magna and the Propylon and the Temple of Tyche (#7) at Baalbek.

In addition to these fragments, literary sources give some idea of the Temple’s decoration. They record that eight of its porphyry columns were re-used in S. Sofia at Constantinople. Moreover, they claim that the Temple contained vast quantities of gold and silver jewelry, precious gems, jewel-encrusted clothes, paintings, and statues. Although the decoration of his Temple of Sol may have recalled the excesses of the Syrian cult, the plan of Aurelian’s complex, by combining a round temple with a colonnaded portico, has strong Roman precedents. As early as the late Republic, both peripteroi and drums appeared in rectangular porticoes, prominent examples being the Temples of Fortuna Huiusce Diei (#38) and of Hercules and the Muses (#42).

Of these two forms, Ligorio’s drum preceded by an intermediate block and pronaos seems a more likely choice for Aurelian’s Temple. Its use of multi-colored stones, notably porphyry columns, recalls Hadrian’s Pantheon (#50), which exerted

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175 For the findspots, see CAR II 160-2 nos. 69-79, 169-71 nos. 87-94, and 175-7 nos. 114-29.
176 Lanciani 1894, 306-7, and 1895, 95-6; Gullini 1960, 34-6 pls. 19-21; and see ‘Decorative details’ below.
177 Gullini 1960, 54; Richardson, jr. 1992, 364; and see #7 above.
178 Ant. Constant. 4.1.66. Materials from the Temple were also employed in S. Giovanni in Laterano. Calzini Gysens and Coarelli 1999, 331-3.
179 See #53. In addition to statues of Jupiter and Aurelian, the Temple contained images of Bel and Helios (Zos. 1.61) in order to appeal to initiates of other sun cults. Homo 1904, 190; and Halsberghe 1972, 143 and 151.
180 Similarly, the round Shrine of Apollo Delphinios at Miletos (#19) is set within a porticoed court. Kawerau and Rehm 1914, 147-8.
181 Moneti’s (1992, 12-3 and fig. 1; cf. Cod. Magl. 2.1.429) unlikely conflation of the two plans results in a rotunda with an awkwardly large drum and long stairwell.
considerable influence on the design of second and third century buildings like the
Temple of Zeus Asklepios Soter at Pergamon (#27) and the ‘Pantheon’ at Ostia
(#23). Moreover, as a round temple to Sol, it has parallels in the Temple of Helios-
Sebazi at Thrace, the Skias at Athens (#6), which was linked with the
Phosphoroi, Helios and Selene, and the Marneion or temple to the sky god Marnas
at Gaza.

Round temples rebuilt during the third century AD:

The Temple of Fortuna, Rome (#37)

Though founded in the Claudian period, the remains of the Temple of
Fortuna on the Pincio (#37) date to the mid-third century AD. These consist of a
segment of the cella wall, the inner face of which is marked by rectangular niches and
a revetment of black marble veined with white. The flooring, similarly, consisted of
white marble plates. Like the Hadrianic Pantheon (#50), the Temple may have
been topped by a dome with an oculus and preceded by a rectangular pronaos, though the pronaos, if it existed, has not yet been excavated.

The fourth century AD:

Maxentius and Constantine: (306-337 AD)

182 In this case, Probus’ coins (see above) may illustrate the Temple’s porch.
184 Wachsmuth 1890, 319 n. 3; Robert 1939, 127-30.
185 This Temple, built in ca. 130 AD, was described by the 4th c. AD author Mark the Deacon as
"round, being supported by two colonnades, one within the other… in the center was a dome puffed up
and rising on high," see Smith 1950, 14.
186 See Chap. V #37.
187 The Temple’s rebuilding may explain its description as novum in the Regionary Catalogues, see
#37.
188 Broise and Jolivet 1998, 493. This connection may reflect its founder’s intention to link the Temple
with prominent Augustan monuments, and by extension, the Imperial family, see Chap. V #37.
189 This is based on Renaissance plans and maps which depict the Temple, see #37.
Like Aurelian, Maxentius focused his building activity on Rome, where the devastating fire of 283 AD had destroyed much of the Velia. He began by rebuilding Hadrian’s Temple of Venus and Roma and added his own Basilica Nova and the round ‘Temple of Romulus’ (#52). His work also included baths on the Quirinal and a complex on the via Appia with a villa, a circus and a mausoleum.

To Constantine’s reign can be attributed an arch commemorating his victory over Maxentius and several round buildings at Rome. Like Maxentius’ mausoleum and the contemporary Tor de’ Schiavi, which reflect the Pantheon (#50), Constantine employed a drum in the Tor Pignattara, the tomb of his mother Helena. While this mausoleum lacked a colonnaded porch, his second, built for his daughter Constantina, encircled its drum with an barrel-vaulted ambulatory. An even more abstract version of the Pantheon’s drum may be found in the ‘Temple of Minerva Medica,’ a decagonal garden pavilion, whose brick-ribbed cupola raised on piers has little in common with the Hadrianic dome.

The ‘Temple of Romulus,’ Rome (#52)

In 309-310 AD, Maxentius issued the first of two coin series to depict a round building surmounted by a cupola. These series, minted at Rome and Ostia, honored divinized members of his family, the gens Valeria. It is likely that Maxentius intended these series, by which he associated himself with successful members of his

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191 These buildings were completed or re-dedicated by Constantine. Ward-Perkins 1989, 426-9; Claridge 1998, 24.
192 Sear 1982, 270-1; Ward-Perkins 1989, 421; and see below.
193 Sear 1982, 272.
194 Instead of an oculus, the Tor de’ Schiavi incorporates round windows into the base of its dome. MacDonald 1976, 101, and below.
197 Rasch 1985, 137-8 and fig. 28, and see ‘Roofing techniques’ below.
gens, to legitimize and strengthen his rule.\textsuperscript{199} The first series, commemorating his son M. Valerius Romulus, who died in 309 AD,\textsuperscript{200} shows the youth on the obverse and the rotunda on the reverse, accompanied by the legend AETERNAE MEMORIAE.\textsuperscript{201} The rotunda consists of a two-step krepis supporting a cylinder of \textit{opus quadratum} masonry. The cylinder is elaborated with a double door, standing ajar, and an entablature decorated with vegetal imagery. A hemispherical dome crowns the monument and is in turn topped by an eagle.

In addition to Romulus, the second series coins, minted from 311 AD, honored Maxentius’ uncle and Constantine’s father, Constantius (d. 306 AD),\textsuperscript{202} Maxentius’ father, Maximian (d. 310), and his father-in-law, Maximianus (d. 311).\textsuperscript{203} As in the first series, their portraits appear on the obverse, while a round building is depicted with considerable variation on the reverse. The second series coins show a rotunda consisting of a krepis, a cylinder, a partly-open door, an architrave, and a dome surmounted by an eagle, but, unlike the first series, columns, grillwork and statuary obscure the building’s masonry, while disks or dentils ornament its entablature.

E. Talamo divided the second series emissions into three basic types:\textsuperscript{204} the first depicts a tetrastyle rotunda with a wide central intercolumnation to accommodate the door, topped by a triangular pediment, and side intercolumnations filled with grating; the second shows four columns, similarly spaced, incorporated into arches.

\textsuperscript{199} King 1959, 73; Frazer 1966, 390; Arnaldi 1977, 279-80; Talamo 1981b, 26. For Maxentius’ ill-fated reign, see Frazer 1966, 385, and Fiore 1981, 64-6.
\textsuperscript{200} \textit{PLRE}\textsuperscript{1} Romulus 6.
\textsuperscript{201} See #52, King 1959, 63-4 and 71-3 (mint marks), and Arnaldi 1977, 271-80 (\textit{aeternitas Augusti} on coins).
\textsuperscript{202} Maxentius may have included Constantius as an attempt to placate Constantine. Frazer 1966, 390; vs. King 1959, 73.
\textsuperscript{203} Constantius: \textit{PLRE}\textsuperscript{1} Constantius 12; Maximian: \textit{PLRE}\textsuperscript{1} Maximianus 8; Maximianus: \textit{PLRE}\textsuperscript{1} Maximianus 9. See King 1959, 63-4 and 71-3 (mint marks). The first emissions of the second series may have reproduced the obverse and reverse of the first series. On the later emissions, Maxentius used the obverse legends to establish his connection to each of the \textit{divi}. Talamo 1981b, 23.
\textsuperscript{204} Talamo 1981b, 23-6 figs. 13-34.
beneath the drum’s architrave; and the third illustrates a hexastyle rotunda with two groups of three columns flanking the door.  

Some coins of Talamo’s second and third categories include an important variation, namely two statues in the side intercolumnations. These statues, which appear on pedestals, are of young, naked males leaning on scepters or pilasters. In view of the potent funerary symbolism of the partly-open door and the eagle, which imply the apotheosis of the divus depicted on the obverse, scholars have interpreted the statues as symbols of death and divinization.

If not purely symbolic, the rotunda shown on these coins may illustrate a memorial or funerary monument constructed during Maxentius’ reign. Two rotundas, the mausoleum in his complex on the via Appia and the ‘Temple of Romulus’ (#52) facing the via Sacra, are the most likely candidates. The mausoleum, consisting of an ashlar-faced cylinder and a columnar porch, stands inside a large rectangular precinct. The precinct forms part of a villa that is dated to the Maxentian period by contemporary inscriptions and sources.

One of the inscriptions suggests that Romulus was the first to be buried in the mausoleum. As his resting place and part of a dynastic complex in honor of Maxentius and his gens, it would be logical, as D. Brown, A. Frazer and F. Castagnoli suggest, that the mausoleum on the via Appia be depicted on Maxentius’ coins.

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205 See #52.
206 See #52. Frazer (1966, 390-1, and see below) incorrectly identifies one figure as male and the other as female.
207 Luschi 1984, 49-50.
209 Luschi 1984, and above.
210 Frazer 1966, 389 and 391; Küthmann and Overbeck 1973a, 26; Rasch 1984, 76-8.
211 Frazer 1966, 385 and 387. For a complete analysis of the mausoleum, see Rasch 1984.
212 See ‘Maxentius and Constantine’ above. Inscriptions and the Chronographus of 354 AD link the mausoleum and circus to Maxentius. The villa is earlier, but was renovated when the rest of the complex was built. Frazer 1966, 385.
214 Brown 1941, 304; Frazer 1966, 391, vs. 1964, 52-3 and 77; Castagnoli 1983b, 275-86.
Talamo, P. Hill, G. Pisani Sartorio, and R. Calza agree with this attribution for the first series coins, but prefer to identify the columnar building of the second series with the ‘Temple of Romulus’ on the via Sacra.\textsuperscript{215}

However, difficulties arise in assigning even the first series to the mausoleum. Neither series shows the building’s projecting porch, while, more fundamentally, there is no sure parallel for a private mausoleum depicted on a coin.\textsuperscript{216} Architecture shown on coins has a public character and, as Maxentius is not known to have illustrated monuments outside of Rome, a rotunda to which his coins may be attributed must be sought within the city limits.

The ‘Temple of Romulus,’ sited between the Temple of Antoninus Pius and Faustina and the Basilica of Maxentius-Constantine, with its round form and prominent public location, is an ideal candidate for depiction on both series.\textsuperscript{217} The building consists of a domed rotunda whose thick walls are punctuated by an alternating pattern of four doors and four windows.\textsuperscript{218} The doors provide access to the via Sacra and a series of three halls: two modest side halls that flank the rotunda and like it, open onto the via Sacra, and a much larger hall that stretches behind the rotunda and links it to the Templum Pacis.

The via Sacra façade of the rotunda and side halls is both lavish and monumental. Each of the side halls, which extend beyond the rotunda, is fronted by two cippolino columns raised on plinths. Concave walls, decorated with two tiers of statue niches, visually link the side halls to the rotunda.\textsuperscript{219} The main entrance,

\textsuperscript{216} Should it represent Constantius’ mausoleum at Trier, a coin noted by Küthmann and Overbeck (1973a, 27 n. 43) would be comparable.
\textsuperscript{217} Discrepancies in both series may indicate phases in construction or planned and completed forms of a single building. Lugli 1947, 189; Coarelli 1986, 14. It is also possible that the model for Maxentius’ coins no longer exists. Lugli 1947, 186; Richardson, jr. 1992, 333.
\textsuperscript{218} Fiore 1981, 67-8 and 72.
\textsuperscript{219} Fiore 1981, 81. Based on Renaissance drawings of the monument, Frazer (1964, 107-9) only reconstructs the lower tier.
consisting of a marble portal and two-paneled bronze doors,\textsuperscript{220} is accentuated by two porphyry columns set against the concave walls and beneath an ornamental architrave.\textsuperscript{221} The dome of the rotunda rises above this façade,\textsuperscript{222} while the vaulted roofing of the side halls may have been obscured by the high concave walls.\textsuperscript{223} These walls also effectively mask the joins between the rotunda and side halls and, by abutting both, create two triangular spaces that act as light wells.\textsuperscript{224}

In the sixteenth century, an inscribed epistyle block was found in the vicinity of the building, which recorded the name of Constantine.\textsuperscript{225} Though the inscription is fragmentary, it is possible to deduce that Constantine either re-dedicated the building or had it dedicated in his honor by the Senate.\textsuperscript{226} Constantinian brick stamps support this date, while evidence for a rectilinear wall predating the concave wall of the entrance façade confirms that the monument had two consecutive phases.\textsuperscript{227} In view of Maxentius’ building activity in the area, it is possible that he initiated the construction of the ‘Temple of Romulus.’\textsuperscript{228} Constantine may have completed it or restructured its façade to tailor his rival’s building to his own ideological purposes.\textsuperscript{229}

The rectangular hall to which the rotunda is connected is much earlier. This Flavian building formed part of Vespasian’s Templum Pacis and may have acted as

\begin{footnotes}
\item[]\textsuperscript{220} For the bronze doors, see Cima 1981 and Righetti 1981, 121-8.
\item[]\textsuperscript{221} On the coins, the architrave is shown resting directly on the column capitals. Fiore 1981, 81. See Frazer (1964, 122-4) for possible reconstructions.
\item[]\textsuperscript{222} For the drainage system necessitated by the oculus, see Frazer 1964, 85-6.
\item[]\textsuperscript{223} Frazer 1964, 89-90; Fiore 1981, 67 and 74. Some coins of the second series (Talamo’s second category), which show arcuation, may support this reconstruction.
\item[]\textsuperscript{224} Fiore 1981, 67 and 80.
\item[]\textsuperscript{225} The inscription (\textit{CIL. VI} 1147), shown on a drawing by Ligorio (\textit{Cod. Vat. Lat.} 3439 f. 14), is confirmed by Panvinio (\textit{Cod. Vat. Lat.} 6780 f. 45). Frazer 1964, 74 and 76-7.
\item[]\textsuperscript{226} Jordan and Hilsen 1907, 10; Dörries 1954, 225; Flaccomio 1981b, 9-10; Grünewald 1990, 219 no. 249; Papi 1999a, 210; vs. Frazer 1964, 76-7 and 110-2.
\item[]\textsuperscript{227} Frazer 1964, 97-8; Fiore 1981, 67 and 80-1.
\item[]\textsuperscript{228} Alternatively, like the Temple of Venus and Roma (see ‘Maxentius and Constantine’ above), the ‘Temple of Romulus’ may mark the reconstruction of a building destroyed in 283. See Whitehead (1927, 14), for remains of a mid-1\textsuperscript{st} c. AD pavement below the rotunda’s floor.
\item[]\textsuperscript{229} Lugli 1947, 189, and below.
\end{footnotes}
an archive or library. Contemporary with the rotunda, an apsidal wall with a comparable diameter was added to the interior of the hall. This apse opening towards the rotunda, like the connecting door, suggests that the building of the rotunda and side halls and the restructuring of the Flavian hall was intended to result in a single, unified structure. The architectural evidence implies that the new building was designed as a monumental entrance for a pre-existing building, possibly put to a new use, which required both a shift in its orientation and an extension to reach the via Sacra. The relationship between the two parts was retained when the rectangular hall was converted into the nave of Ss. Cosma e Damiano with the ‘Temple of Romulus’ serving as its vestibule.

Architectural parallels can be found in a variety of buildings both at Rome and in the provinces. Thermae, like the Baths of Caracalla, incorporate round vestibules and caldaria into rectilinear complexes, while some Imperial residences, like the Palace at Lausus, and funerary monuments, like the mausoleum of Helena, combine rotundas with off-axis halls. For the tri-partite facade of the ‘Temple of Romulus’, comparanda can be found in triumphal arches, which employ columns on pedestals to create a monumental impression, and more specifically in two mausolea on the via Appia. Each mausoleum, illustrated in Renaissance drawings, consists of a rotunda with two projecting, rectilinear side halls visually linked by an

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230 Flavian in origin, this building was rebuilt by the Severans (who affixed the Marble Plan to the N wall) and again by Diocletian after the fire of 283 AD. De Ruggiero 1913, 212-3; Lugli 1946, 226. Frazer (1964, 73, 79 and 116-9) uses its presence to support his identification of the ‘Temple’ as the office of the praefectus urbi.
231 Fiore 1981, 72.
232 Fiore 1981, 67. Maxentius’ use of a rotunda, rather than a rectangular building, makes this shift less apparent.
233 Lib. pontif. LVI vita Felic. IV (526-530 AD).
234 Independent of the side and rectangular halls, the model for the domed rotunda was undoubtedly the Hadrianic Pantheon (#50). MacDonald 1976, 100; Flaccomio 1981b, 11-2; Coarelli 1986, 14-5.
236 Fiore 1981, 84 figs. 114 and 116.
237 Frazer 1964, 129; Fiore 1981, 81.
arcuated façade. As in the ‘Temple of Romulus,’ the façades mask each building’s drum, while accentuating their domes.238

Due to the building’s striking architectural form and prominent location, many scholars have tried to determine its function. Though its architecture suggests that the ‘Temple of Romulus’ served as a fourth century vestibule for the Templum Pacis,239 Maxentius’ coins raise doubts about the accuracy of this attribution. The question of its identity is further complicated by the fact that Maxentius probably intended the building to fulfill one function, while Constantine re-dedicated it to serve another. The name commonly ascribed to the building, the ‘Temple of Romulus,’ only appears in literary sources from the ninth century AD.240 Despite this gap, many scholars feel that Maxentius’ first and second series coins dedicated to Romulus provide sufficient proof that the rotunda they illustrate is the ‘Temple of Romulus’ built to honor Maxentius’ divinized son.241

The two male figures represented on some second series coins have been a springing point for additional theories. Both L. Luschi and F. Coarelli have examined these figures with different results.242 Luschi sees the two youths, distinguished by their heroic nudity and languid pose, as funerary symbols akin to erotes on Roman sarcophagi.243 Underlining this motif, together with the partly-open door and eagle, Luschi suggests that the rotunda acted as a dynastic temple to the divi of Maxentius’ family.244 Prominent since the Republic, when Valerius Publicola served as Rome’s

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238 See #52, and Lugli 1953, 1220 fig. 3 and 1221 fig. 4. Frazer (1964, 126-8) also compares the rotunda to nymphaeum and suggests moreover, that the ‘Temple’ replaced a nymphaeum on the via Sacra.

239 See #52.

240 See #52.

241 See #52. It is not clear how the other divi of the second series were honored, if not simply by association with Romulus’ temple.

242 Frazer (1966, 390-1) interprets the figures as Hercules and Victoria.


244 While Frazer (1964, 77) counters this argument by pointing out the lack of internal niches, the external niches may have been sufficient to display statues of the gens.
first consul, the gens Valeria gained special privileges, including the license to bury within the city walls. Maxentius, who used family connections to legitimize his power, may have revived this tradition with a dynastic monument near the site of his ancestor’s historic *domus* and tomb.\textsuperscript{245} Since a monument to the glory of Maxentius’ family would have been an insult to Constantine, such an attribution might explain why Constantine added a new façade, inscription and function to the building.\textsuperscript{246}

Instead of searching for parallel depictions, Coarelli looks for pairs of gods which might reasonably be represented on Maxentius’ coins. Discarding the Lares and Dioscuri as less likely candidates, he interprets the figures as statues of the Penates.\textsuperscript{247} While ancient sources site a Temple of the Penates on the Velia,\textsuperscript{248} Coarelli suggests that Maxentius, after demolishing much of the area to make way for his Basilica, re-erected the temple and other significant buildings nearby. In this context, he proposes that the side halls of the ‘Temple of Romulus’ functioned as the new Temple of the Penates.\textsuperscript{249}

Regio IV includes a sequence of buildings on the south side of the via Sacra.\textsuperscript{250} While most are firmly located, the Temple of Jupiter Stator, sited between the Basilica of Maxentius-Constantine and the Temple of Antoninus Pius and


\textsuperscript{246} Luschi 1984, 51.

\textsuperscript{247} Coarelli 1974, 94, and 1986, 16 and 19; vs. Luschi 1984, 44. For other coins which show the Penates, see Palombi 1997, 448 n. 51, while for the cult of the Penates, see Chap. III #17.

\textsuperscript{248} Varro *frg.* *Non.* p. 531; Sol. 1.22; *Don. Ter.* 256; Dion. Hal. 1.68.1; Liv. 45.16.5. Palombi 1997, 435-7. Whitehead (1913, 143-65) and Lugli (1946, 225-6) identified the Flavian hall as the original Temple of the Penates, while Palombi (1997, 438-9) links it to a temple illustrated on fragments 594 a-b and 673 of the Severan Marble Plan (cf. *Cod. Vat. Lat.* 3439).

\textsuperscript{249} Coarelli 1983b, 26-33, 1986, 18, and 1995k, 106-7. While Hill (1989, 13) points out that the coins show side intercolumnations, not side halls, in support of Coarelli’s theory, the sources site both buildings to the N of the *summa Sacra via*, cf. Ps. *Cic. exil.* 24. Castagnoli 1988, 104.

\textsuperscript{250} See #52. Coarelli (1983b, 26-31 and 33, 1986, 4-10, and 1995k, 106) convincingly limits this region to include the ‘Temple of Romulus.’
Faustina, has escaped attribution. Of the buildings alongside the via Sacra, Coarelli interprets the rotunda as the only possible candidate for a temple to Jupiter.251

According to tradition, the Temple of Jupiter Stator was erected by Romulus,252 while a few sources attest to its existence through the Republican period253 and again in the fourth century AD. Whether the temple remained active through the early and high Imperial periods is uncertain, though, if it fell into disrepair, it is not impossible that its site and connections to the origins of the city remained significant.

By naming his son after Rome’s founder and by associating himself with divine family members, Maxentius demonstrated his awareness of the importance of history. Erecting a monument in honor of his family on the site of Jupiter’s temple may have been a means of ensuring his place within the aeternitas of Rome.254 Constantine may have successfully negated Maxentius’ claim to rule by re-dedicating the site and the ‘Temple of Romulus’ to the ancient cults of Jupiter Stator and the Penates.255

Based on the evidence available, it is likely that the rotunda depicted on Maxentius’ coins is equivalent to the building on the via Sacra. Moreover, the coins’ symbolism suggests that the ‘Temple of Romulus’ served a commemorative function. Luschi’s hypothesis of a temple to the gens Valeria is the most direct means Maxentius could have chosen to honor his deceased relatives. Whether set in relation to his ancestor’s domus and mausoleum or built on the remains of Romulus’ temple to Jupiter, such a monument accords best with Maxentius’ desire to tie his rule to divine

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253 Cic. Catil. 1.9; Cic. Phil. 2.64; CIL VI 435. Coarelli 1983b, 31-3.
255 Coarelli 1986, 18. However, this may be incompatible with Constantine’s Christian agenda, see Frazer 1964, 115.
members of his *gens*.\textsuperscript{256} As a commemorative monument, it is not surprising that the building was not recognized by its proper name in fourth century catalogues. Constantine would have been quick to transform the structure, possibly into the Temple of Jupiter Stator\textsuperscript{257} or into some other monument that might celebrate his own ideology. For its scale and complexity, the ‘Temple of Romulus’ makes a significant contribution to the via Sacra at a point where Maxentius’ influence, even with the interventions of Constantine, is most felt: in the shadow of the Temple of Venus and Roma and the Basilica of Maxentius-Constantine.

III ANALYSIS

FOUNDATION AND LOCATION

Septimius Severus undertook a program of rebuilding in the Forum, which included additions to the Mundus (#49) and the reconstruction of the Temple of Vesta (#57). Coins attest to the involvement of his wife, Julia Domna, with the Temple of Vesta, while a dedicatory inscription shows that Septimius Severus and Caracalla repaired Hadrian’s Pantheon (#50). The important position held by each of these monuments reveals why the Severans took pains to restore them, while, as part of the Imperial domain,\textsuperscript{258} the reconstruction of the Temple of Fortuna on the Pincio (#37) may mark another high ranking project.

Though ostensibly a rebuilding, the Abaton at Pergamon (#26) completes the Sanctuary of Asklepios as redesigned under Hadrian. A prominent local figure, like

\textsuperscript{256} It is unclear why the ‘Temple of Romulus’ was built to complement the Flavian hall, if not to serve as a vestibule for the Templum Pacis. Possibly, its function necessitated more space than the rotunda and side halls, built on constricted piece of land, could afford.

\textsuperscript{257} It is also possible that Maxentius chose to honor the *divi* depicted on his coins by rebuilding Romulus’ Temple of Jupiter Stator. If so, Constantine may simply have rededicated it.

\textsuperscript{258} Following Valerius Asiaticus’ death in 47 BC (Tac. *ann.* 11.1), the Horti Lucullani became Imperial property. Broise and Jolivet 1987a, 750.
the consul who built the Temple of Zeus Asklepios Soter (#27), may have promoted its construction, while the Fratres Arvales, as her priesthood, probably re-erected the Temple of Dea Dia (#35). Coins attribute the Temple of Melampous at Aigosthena (#1) to Geta and the Temple of Tyche at Baalbek (#7) to Philip the Arab, and sources assign Aurelian the Temple of Sol (#53). As the god who oversaw his victory at Palmyra, it is not surprising that a temple to Sol was Aurelian’s most lavish building project.

Inspired by the Pantheon at Rome, Alexander Severus may have founded a temple to the Imperial cult at Ostia (#23). Similarly, prior to its re-dedication under Constantine, Maxentius’ ‘Temple of Romulus’ (#52) probably commemorated the gens Valeria.

While the settings of the Temple of Vesta, the Pantheon, and the Temple of Fortuna on the Pincio remained constant, the Mundus’ precinct, further defined by a rise in the surrounding pavement level, was enhanced by steps. Like these round temples, new temple foundations occupied prominent positions along major routes and in sanctuaries. Comparable to the Hadrianic Pantheon, the ‘Pantheon’ at Ostia was preceded by a rectangular forecourt that aligned it with neighboring buildings and the Decumanus Maximus. Similarly, the Temple of Tyche may have faced the Decumanus of Baalbek, while the ‘Temple of Romulus’ opened onto the via Sacra. The ‘Temple’s road frontage was a primary consideration for its architect, who employed the rotunda to re-orient, extend and embellish the Flavian hall.

Aurelian’s Temple of Sol may also have been accessed by a monumental entrance that formed part of its precinct. It is likely that the Temple occupied the

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259 Similarly, a high priest founded the Temple of Palaimon-Melikertes at Isthmia (#15).
260 See Chap. VI ‘Foundation and location.’
261 If not the Arco di Portogallo (see above), it is likely that some type of monumental entrance fronted the Temple’s court.
center of the court, which, if pre-existing, was completely rebuilt to accommodate the cult.\textsuperscript{262} While the Temple of Melampous may have formed the centerpiece of his Sanctuary at Aigosthena,\textsuperscript{263} the Abaton at Pergamon stood at the periphery of the Sanctuary of Zeus Asklepios Soter. Fully visible from outside the precinct, the Abaton was obscured from the court by a cistern and portico. Like its atypical entrances, namely a side door from the South Hall and the cryptoporticus, the Abaton’s peripheral location must have enhanced its internal impact.

More prominent was the Temple of Dea Dia, situated on a terrace at the sanctuary’s summit. In addition to its location, the Temple’s round form set it apart from other buildings, which played subsidiary roles in her cult.\textsuperscript{264} Although elements of its decoration closely recall the nearby Sanctuary of Jupiter and Temple of Bacchus at Baalbek,\textsuperscript{265} the Temple of Tyche is also distinguished by its round form.\textsuperscript{266}

The Temple of Sol forms a marked contrast to its rectangular precinct, though its court aligns it with surrounding buildings. The ‘Temple of Romulus’ makes concessions to the via Sacra and neighboring buildings by employing rectangular side halls and screen walls to obscure its round form.\textsuperscript{267} The ‘Temple,’ appreciated from inside its rotunda, has a parallel in the ‘Pantheon’ at Ostia. Their interior focus, known from Hadrian’s Pantheon, is picked up by the Abaton at Pergamon, whose drum functions as a shell for two distinct levels.\textsuperscript{268}

\textsuperscript{262} Le Glay (1987, 554) attributes the Temple’s siting in the Campus Martius to Aurelian’s desire to link himself with Augustus, the \textit{placator orbis}.\textsuperscript{263} The Melampodeion, or festival hall, is the only other building known from the sanctuary.\textsuperscript{264} The sanctuary’s north-south axis helps to tie its disparate buildings together.\textsuperscript{265} Not only are the other temples rectangular, but they include an \textit{adyton} or ‘covered niche,’ a distinctly local feature absent from the Temple of Tyche. Gros 1996a, 192.\textsuperscript{266} Even if the Temple of Tyche were contained within an enclosure, as Ward-Perkins (1989, 230) suggests, it is unclear how well this precinct would relate it to its neighbors.\textsuperscript{267} Whereas most buildings on the via Sacra were rectangular, the Temple of Vesta (#57), the Tholus of Cybele (#34) and the Shrine of Bacchus (#32) may have been visible from the ‘Temple.’\textsuperscript{268} Its domed drum is interrupted by protruding apses, which, hidden from inside the sanctuary, add to the dramatic effects achieved by the upper level.
Of the third and early fourth century round temples, the ‘Temple of Romulus’ employs the round form to the greatest effect since the Hadrianic Pantheon. Whereas the Pantheon fronted a drum with a rectangular intermediate block and porch, the ‘Temple’ employs a rotunda to mediate between a pre-existing rectangular hall, rectilinear side halls, and the via Sacra. For the first time in Roman religious architecture, the ‘Temple’ takes inspiration from bath buildings through its use of a rotunda to bind elements in an otherwise rectilinear plan.

BUILDING MATERIALS AND TECHNIQUES

Masonry techniques

Third and early fourth century round temples employed many of the same materials and techniques used in earlier periods, while adding some important variations. Ashlar masonry, popular since the late Republic, appears in the walls of the Temples of Vesta (#57), Dea Dia (#35), Sol (#53), and Tyche at Baalbek (#7). While the Temple at Baalbek is unusual for its stone dome, the Abaton in the Sanctuary of Zeus Asklepios Soter at Pergamon (#26) follows clear precedents in facing the concrete cores of its walls and pillars with ashlar blocks.

Brick is used as a facing for concrete in the foundations of the Mundus (#49) and of the ‘Temple of Romulus’ (#52), as well as in the marble-revetted walls of the ‘Pantheon’ at Ostia (#23). The ‘Pantheon’ incorporates opus vittatum mixtum into its foundations, a technique combining brick courses and rubble facing that first

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269 See Chaps. IV-VI ‘Masonry techniques.’
270 See ‘Roofing techniques’ below.
271 These blocks are thicker than average revetment. Ziegenaus 1981, 100.
272 Brick foundations, though relatively rare, may have featured in the Domitianic Tholus of Cybele (#34).
273 If correctly identified with the Porticus Vipsania (see #53 above), parts of the Temple of Sol were rebuilt in brick-faced concrete under Diocletian.
appears in Augustan fortifications.\textsuperscript{274} In third century Ostia, it also features in tombs, the Schola of Trajan, and the House of Amor and Psyche,\textsuperscript{275} while at Rome, it forms the walls of the Temple of Fortuna on the Pincio (#37). \textit{Opus reticulatum} and \textit{opus latericium} are combined in repairs to the Pincian temple,\textsuperscript{276} in the foundations of the Temple of Dea Dia and significantly, in the dome of the ‘Temple of Romulus.’\textsuperscript{277}

More so than poured concrete,\textsuperscript{278} popular under the Flavians and Antonines, brick-faced \textit{opus concretum} is the main medium for new construction under the late third and early fourth century emperors. Not only did it allow large building projects to be completed quickly, like Aurelian’s walls,\textsuperscript{279} but, combined with other materials, it opened up new possibilities in roofing design.

\textbf{Roofing techniques}

While the Temple of Dea Dia (#35) employed a conical roof, laden with marble tiles and antefixes,\textsuperscript{280} most round temples of the third and early fourth centuries were topped by domes.\textsuperscript{281} Coins attest that the Temples of Vesta (#57) and of Melampous at Aigosthena (#1) were roofed with cupolas, while Renaissance drawings reconstruct domes for the Temples of Sol (#53) and of Fortuna on the Pincio (#37).

\textsuperscript{274} It appears in the Herculaneum gate at Pompeii, Hadrian’s Villa, and more widely, in Romano-Celtic buildings throughout Gaul. Adam 1994a, 135 and 141-2.
\textsuperscript{275} Adam 1994a, 142.
\textsuperscript{276} These techniques are too widespread to serve as an accurate dating device, though their use in rebuilding work is typical of the third and fourth centuries (e.g. Maxentius’ repairs to the Aurelian walls). Adam 1994a, 141 and 151.
\textsuperscript{277} See ‘Roofing techniques’ below.
\textsuperscript{278} Poured concrete features in the steps of the ‘Pantheon’ at Ostia, as well as in the lower vaulting of the Abaton.
\textsuperscript{279} Ward-Perkins 1989, 436.
\textsuperscript{280} This Greek-style roof was more popular in earlier periods, see Chaps. IV-VI ‘Roofing techniques.’
\textsuperscript{281} Although modeled after the Hadrianic Pantheon (#50), the ‘Pantheon’ at Ostia (#24) probably supported a timber roof (see above).
Fragments of poured concrete vaulting are preserved from the lower level of the Abaton at Pergamon (#26), as are parts of the semi-domes from the exedrae of its upper level. It is probable that a concrete dome, comparable to that of the Temple of Zeus Asklepios Soter (#27), crowned the Abaton. With its proliferation of domes, vaults, and exedrae, the Abaton recalls bath buildings, notably the contemporary Hunting Baths at Leptis Magna. Unlike the Hadrianic Pantheon (#50) and the Temple of Asklepios, little attempt is made by the Hunting Baths or the Abaton to disguise the round forms that define their design.

By contrast, the cupola of the Temple of Tyche at Baalbek (#7) is masked by an extension of its sloping porch roof. While the triangular pediment and wooden roof of its porch has many parallels, including the pronaos of the Hadrianic Pantheon, the stone cupola and pitched roof above its cella is both complicated and uncommon. In addition to using cut stone work, which also features in the late second century Arthur’s Oon, a round military trophy in southern Scotland, its cupola is unusual for its curvature, representing one-third of a circle, and its method of support. Unlike most cupolas, it rests on the cella’s Corinthian cornice, acting as a mensole, rather than directly on its walls.

The ‘Temple of Romulus’ (#52) is also exceptional for its materials and form. Comparable to the cupola of the Temple of Tyche, its dome is flatter than average,

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282 Ziegenaus 1981, 80.
284 Rasch 1985, 124.
285 See #7 above.
286 Wilson 1973, 32; MacDonald 1976, 10; for additional bibliography, see Godfrey and Hemsoll 1986, 72. Also comparable are the tufa domes of the bath buildings at Baia and the cupolas which form part of the Arch of Marcus Aurelius at Oea and the quadrifrons arch at Laodicea. De Angelis d’Ossat 1940, 243; Rasch 1985, 122.
287 De Angelis d’Ossat 1940, 226.
288 This facilitated construction by diminishing its span and as a by-product, resulted in its one-third curvature. De Angelis d’Ossat 1940, 242.
adopting a double curvature like the Mausoleum of Maximianus at Thessaloniki. This late Antique convention is coupled by a second, the use of brick ribs and stone to shape its dome. Compartmentalized between the ribs, travertine, peperino, and tufa blocks are laid in horizontal layers, diminishing in weight toward the oculus. While this use of variously weighted materials has a strong precedent in Hadrian’s Pantheon, its construction techniques are closer to contemporary rotundas like the ‘Temple of Minerva Medica.’ These early fourth century domes are lighter than the Pantheon’s, allowing them to incorporate windows and, in the ‘Temple of Minerva Medica’, less substantial support structures.

While the ‘Temple of Romulus’ explored the potential of this technique by including four windows, which opened up new lighting possibilities in its drum, it adhered to conventional methods of roofing in the concrete barrel vaults of its side halls. Used concurrently, the ‘Temple’ demonstrates how the roofing techniques popular in earlier periods remained in use through the early fourth century, even as clerestory lighting looks forward to early Christian architecture.

BUILDING COMPONENTS

With two prominent exceptions, the foundations and podia of third and early fourth century round temples follow Flavian and Antonine precedents. The Mundus (#49) and the ‘Temple of Romulus’ (#52) employ a brick ring comparable to the

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289 The Baptistarium at Nocera has a comparable dome. Fiore 1981, 68-9; Rasch 1985, 129.
290 Fiore 1981, 68-71. The ‘Temple’ is one of the last rotundas to incorporate an oculus. De Angelis d’Ossat 1940, 233.
291 For the Pantheon’s aggregate, see Chap. VI #50, and ‘Roofing techniques.’ Amphorae were commonly used to lighten the domes of late Antique rotundas like the Tor Pignattura and the Mausoleum of Constantina. Sear 1982, 274; Ward-Perkins 1989, 424, 431, and 436.
292 Brick ribs, also used in the Flavian Amphitheater, the Villa of the Gordians, the Baths of Diocletian, and the Basilica of Maxentius-Constantine, provided support, while facilitating the construction of vaults and domes (like relieving arches). Ward-Perkins 1989, 433-5.
293 Sear 1982, 272-4. For the pillars which support its dome, see ‘Maxentius and Constantine’ above.
294 Sear 1982, 274.
Tholus of Cybele (#34), while in the Greek world, the Temple of Tyche (#59) rests on foundations and a podium of ashlar blocks, which figure prominently in the Temple of the Nymphs at Argos (#2) and the Rotunda at Athens (#5). The ‘Pantheon’ at Ostia (#24) and the Temple of Fortuna on the Pincio (#37) combine both materials in their foundations.

Though stone and brick also feature in the Temple of Dea Dia (#35), its network of ring and perpendicular corridors surpasses the pits and passageways of the earlier Temples of the Nymphs and of Palaimon-Melikertes at Isthmia (#15). Even more complex is the lower level of the Abaton at Pergamon (#26). Using pillars and walls to define two annular corridors, lit via windows from the third, this level not only supports the cella, but accommodates cult practices to a greater extent than previous foundations.

Like some earlier round temples, that of Melampous at Aigosthena (#1) may have employed a Greek-style krepis. Most third and early fourth century temples however stood on Roman podia. In addition to the Temple of Vesta, whose podium was rebuilt to reflect its Trajanic reconstruction, the Temple of Dea Dia is raised on a high podium fronted by steps. Steps provide access to the columnar porches of the ‘Pantheon’ at Ostia and of the Temples of Tyche at Baalbek, Sol (#53) and Fortuna on the Pincio. The podium of the Temple of Tyche is also notable for its scalloped edge, which incorporates the plinths of its peristasis.

Its podium moreover, acting in concert with the drum’s aediculae, adds to the undulating quality of the Temple of Tyche. This type of effect, achieved by Hadrian’s...

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295 The foundations of the Temple of Vesta (#57) remained virtually unchanged since the late Republic.
296 For an early example of ashlar masonry used in foundations, see Chap. V. ‘The Pantheon’ (#50).
297 While the Temple of Vesta’s ash pit is attested by Festus (p. 296 L), it is reasonable to assume that other complex foundations played a part in cult rituals.
298 See Chap. VI ‘Building components.’
299 The Abaton and the ‘Temple of Romulus’ lacked podia.
Pantheon (#50) through its alternating exedrae and aediculae, becomes more widespread in the third century. While the concave walls of the ‘Temple of Romulus’ include two tiers of aediculae, exedrae and semicircular niches are embedded in the walls of the Temples of Dea Dia, Sol and Fortuna on the Pincio. More dramatic are the exedrae that protrude from the portico of Sol, the main niche of the ‘Pantheon’ at Ostia, which extends beyond its drum, and the apses of the Abaton at Pergamon. Though opening onto the drum, the Abaton’s apses effectively begin where its cella wall ends.

Columns, often framing aediculae, form another important part of baroque ornament, not only of round temples, but also of other prominent Severan buildings like the Septizodium in Rome and the rectangular court of the Sanctuary of Jupiter at Baalbek. While plinths are an important addition to this repertory, the bases, shafts and capitals of third and early fourth century round temples, as well as their moldings and entablatures, follow Flavian and Antonine precedents. Important exceptions include the five-sided Attic bases and Corinthian capitals of the Temple of Tyche.

Similarly, as monopteroi, peripteroi and drums, they recall earlier round temples. While the ‘Temple of Romulus’ is unusual for including two side halls and a pre-existing rectangular hall, the drums of the Temple of Dea Dia and to some extent, the Abaton, have parallels in the Temple of Fortuna Primigenia at Praeneste (#31) and the Theater Shrine at Tibur (#66), while the ‘Pantheon’ at Ostia and the Temple of Sol

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300 An apse, of comparable diameter to the drum, was also added to interior of the Flavian building.
301 The drum’s niches and portico’s apses are best illustrated in Ligorio’s drawing (Cod. Turin. a II 3 J. 16).
302 The ‘Pantheon’s’ podium is also fronted by two statue niches, while its court is lined with aediculae.
303 Sear 1982, 258; Ward-Perkins 1989, 319-20 fig. 205.
304 Plinths, also employed in Elagabalus’ Temple of Sol (see Gros 1996a, 188), form part of the Temple of Vesta (preserved from its Trajanic phase) and the ‘Temple of Romulus.’
305 In addition to the Mundus, which took the form of a monopteros from the late Republic, the Temple of Melampous is depicted without cella walls.
imitate the Hadrianic Pantheon. With columnar porches fronting their rotundas, the Temples of Tyche and of Fortuna on the Pincio are distant reflections of the Pantheon, more akin to the Temples of Fortuna Huiusce Diei (#38) and of Hercules and the Muses (#42).

**DECORATIVE DETAILS**

**The podium and plinth molding**

The few podium and plinth moldings preserved from third and early fourth century round temples rely on ornament popular in the Flavian and Antonine periods. Along the base of the Severan Temple of Vesta (#57) runs a molding consisting of a fascia, a torus decorated with flowering buds, and a cyma recta, whose palmettes and floral motifs recall decoration from the Domus Augustana. Above this molding, both its podium and plinths employ frames of Lesbian cymatia and a simple bead pattern. Although the resulting panels are flat, they appear recessed and enhance the undulating effect achieved by the protruding plinths and podium.

Lacking floral decoration, the remaining moldings are plainer. Base moldings from the ‘Pantheon’ at Ostia (#23) and the Temple of Tyche at Baalbek (#7) consist of fascias, scotias flanked by tori, and cyma rectas. While the crown molding from Baalbek is more complex, the molding of the ‘Temple of Romulus’ (#52) is the most basic, relying on fascias, a torus, and a single cyma reversa to give its plinths definition. Unlike most of the ‘Temple’s ornament, it is probable that these plinths,
which have a close parallel in a fourth century statue base, were purpose-made. With their simple, flaccid workmanship, both the base and the plinths give evidence of the decline in standards that characterizes fourth century carving.

The column base

While the Temple of Vesta (#57), like Hadrian’s Pantheon (#50), employs Ionic bases for its columns and pilasters, the Temple of Tyche at Baalbek (#7) and the ‘Temple of Romulus’ (#52), like most Flavian and Antonine round temples, use Attic bases. Though the Attic form is also adopted by the ‘Pantheon’ at Ostia (#23), its bases are unusual for their rich Asiatic ornament.

The column shaft

More so than in previous periods, third and early fourth century round temples employ pilasters. Used in the Abaton at Pergamon (#26) to flank the niches of its upper level and on the exterior of the Temple of Dea Dia (#35), marble-revetted pilasters mirror columns in the Temple of Vesta (#57), the ‘Pantheon’ at Ostia (#23), and the Temple of Tyche at Baalbek (#7). The peripteral columns and pilasters of the Temple of Tyche are joined by porch columns, half-pilasters and half-columns. While its porch shafts are a dramatic red granite, its peripteral columns and the half-columns of its interior, like the peristasis of the Temple of Vesta, employ white marble bases, shafts, and capitals.

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310 See Frazer (1964, 93 n. 30) for the statue base of Fabius Titianus, a consul and praefectus urbi in 338 AD.
311 See Chap. VI ‘The column base.’
312 While the Temple of Fortuna Huiusce Diei (#38) also had Attic-Asiatic bases, the ‘Pantheon’s’ closest Roman comparanda are the Greek-inspired Ionic bases of the Temple of Apollo Medicus. Gros 1996a, 502 fig. 616; Viscogliosi 1996a, 45 fig. 42.
313 Though not uncommon in Greek tholoi like the Philippeion at Olympia (#22) and the Arsinoeion at Samothrace (#58), pilasters are not attested in Roman round temples prior to the Hadrianic period.
314 The Temple of Vesta also employs pilasters in its interior.
Colored stones, used to great effect in the shafts, paving and revetment of Hadrian’s Pantheon, also feature in the ‘Pantheon’ at Ostia, the Temple of Sol (#53), and the ‘Temple of Romulus’ (#52). By using cippolino and porphyry shafts, they not only enliven their façades, but also underline their Imperial connections.\footnote{This is especially true for the porphyry shafts of the Temples of Sol and of ‘Romulus.’ Fiore 1981, 81.}

**The column capital**

Unlike earlier periods, the capitals preserved from third and early fourth century round temples employ the Corinthian order.\footnote{While the coins do not reveal the order of the Temple of Melampous at Aigosthena (#1), volute fragments attest that the Temple of Dea Dia (#35) included Corinthian pilasters as did, most likely, the Abaton at Pergamon (#26) on the model of the Temple of Zeus Asklepios Soter (#27).} Ionic through the Trajanic period, Corinthian capitals formed part of Julia Domna’s reconstruction of the Temple of Vesta (#57). These capitals followed Flavian styles\footnote{Heilmeyer 1970, 164 pls. 59, 3-5; Leon 1971, 225; Freyberger 1990, 103 pl. 36a.} through their combination of rigid nerves, folded lobes and regular hollows. Like Flavian capitals,\footnote{See Chap. VI ‘The column capital.’} they emphasize light and shade effects and the ornamental qualities of foliage. However, as K. Freyberger points out, their execution is less skilled and proportions less balanced than comparable capitals.\footnote{Freyberger 1990, 103 pl. 36d (Temple of Ceres, Ostia).} He blames the volume of rebuilding work undertaken by the Severans for their sloppy craftsmanship.\footnote{Freyberger 1990, 103.}

More skillful are the capitals re-used in the ‘Temple of Romulus’ (#52), which also resemble Flavian precedents,\footnote{Cima (1981, 108-9) dates them to the Domitianic period based on their similarities to capitals from the portico of the Forum of Caesar (Leon 1971, 93 pl. 32.2) and from the Flavian palace on the Palatine (Heilmeyer 1970, 137-9 pl. 48.8).} and the porch and peripteral capitals of the Temple of Tyche at Baalbek (#7).\footnote{The Composite? (see #7) pilaster capitals are no longer extant.} Recalling capitals from the mid-second century court of the Temple of Jupiter, those from the round Temple of Tyche as well as
contemporary capitals from the Propylon at Baalbek look back to Antonine work.\textsuperscript{323} Their three tiers of leaves, characterized by projecting lobes and deep nerves, ridges and hollows, invade the zone of the volutes and helices. As in capitals from the Temple of Zeus Asklepios Soter at Pergamon (#27)\textsuperscript{324} and the Temple of Bacchus at Baalbek,\textsuperscript{325} this zone is crowned by a richly decorated abacus.

While the abacus molding reflects local influences,\textsuperscript{326} the capitals of the ‘Pantheon’ at Ostia (#23) borrow Asiatic ornament. In addition to spiky leaves, known from the Traianeum at Pergamon and the Temple of Tyche at Side (#59),\textsuperscript{327} the Ostian capitals employ a systematic arrangement of foliage. Their leaves, set at regular intervals, barely overlap until the level of the volutes and helices. Almost lost behind the foliage, the helices provide support for the eagles and theatrical masks displayed on the abacus.\textsuperscript{328}

Though the masks recall capitals from the Porticus of Octavia and the foliage finds parallels in Severan rebuildings of the Stadium of Domitian, the Domus Augustana, and the Flavian Amphitheater, the ‘Pantheon’s’ capitals are closest to examples from the Basilica at Leptis Magna and the Frigidarium of the Great Baths at Cyrene.\textsuperscript{329} For their comparable style and content, the Ostian capitals have been ascribed to an Asiatic workshop, possibly from Aphrodisias.\textsuperscript{330}

Inspired by Flavian, Antonine and Asiatic styles, capitals from third and early fourth century round temples employ ornamental foliage\textsuperscript{331} to overrun the register of

\textsuperscript{323} Wiegand 1925, 108-9 figs. 154 and 171.
\textsuperscript{324} See Chap. VI.
\textsuperscript{325} Wilson Jones 2000, fig. 7.34.
\textsuperscript{326} Heilmeyer 1970, 164; Wilson Jones 2000, 153.
\textsuperscript{327} See Chap. VI.
\textsuperscript{328} Pensabene 1973, 95 no. 336 and pl. 33.
\textsuperscript{329} Pensabene 1973, 95-6 and 202; Gros 2001, 491.
\textsuperscript{330} Pensabene 1973, 95; vs. Gros (2001, 491), who warns against assigning them to any particular workshop.
\textsuperscript{331} They form a marked contrast to the organic ornament of Julio-Claudian and Augustan revival capitals.
the volutes and helices.\textsuperscript{332} Moreover, like their precedents,\textsuperscript{333} they emphasize vertical growth, acanthus distinguished by deep ridges and pointed lobes, and in some examples, the play of light and shade achieved by richly carved ornament.

\textbf{The entablature}

While the Severan restoration of the Mundus (#49) included repairs to its Ionic entablature, Julia Domna’s rebuilding of the Temple of Vesta (#57) complemented its Corinthian columns with a corresponding entablature.\textsuperscript{334} Between its three-fascia architrave and modillion cornice runs a frieze course, which displays sacrificial implements. Compared to the Temple of Vespasian’s frieze\textsuperscript{335} and reliefs from the Pantheon’s intermediate block (#50),\textsuperscript{336} the Temple of Vesta’s frieze course includes many of the same motifs, though it lacks the rich detailing that characterizes their ornament.\textsuperscript{337}

Of the entablature blocks re-used in the ‘Temple of Romulus’ (#52), the anthemion frieze shows the lush modeling typical of Flavian decoration, while the cornice fragments are stylistically closer to the Arch of Septimius Severus.\textsuperscript{338} Similarly lavish decoration is employed in the Corinthian entablatures of the Temple of Tyche at Baalbek (#7). Both its interior and exterior entablatures comprise a three-fascia architrave, a blank frieze course, a variety of moldings,\textsuperscript{339} and a cornice whose S-shaped modillions alternate with rosette soffit panels. This cornice is topped by a

\textsuperscript{332} Gros 2001, 491.
\textsuperscript{333} See Chap. VI.
\textsuperscript{334} A Corinthian entablature was also a feature of the Trajanic temple, see Chap. VI.
\textsuperscript{335} Wegner 1992, 42 pl. 2a.
\textsuperscript{336} See Chap. VI ‘Statuary and reliefs.’
\textsuperscript{337} The mechanical copying of Flavian motifs is typical of mid-to-late 2\textsuperscript{nd} c. ornament. Gros 1996a, 195.
\textsuperscript{338} For example, they employ the same distinctive Ionic cymatia. Wegner 1957, 55 and 68 n. 86; Frazer 1964, 96-7.
\textsuperscript{339} Among these moldings, including bead-and-reel and Ionic cymatia (whose darts are replaced by floral ornaments), the Lesbian cymatia resemble examples from the Temple of Jupiter at Baalbek. Wiegand 1925, 97 figs. 143-4.
The entablature which encircles the Temple of Tyche’s porch and drum includes a convex frieze, a common feature of Asiatic decoration that appears in Rome as early as the Hadrianic period. The shell motifs displayed on the sima of the Temple of Dea Dia (#35) recall ornament from the Temple of Jupiter at Baalbek as well as from prominent Roman buildings like the Hadrianic Basilica Neptuni. Other elements of its entablature are distinctly Flavian like its Ionic cymatia and dentils, which find close parallels in the Domus Augustana. Its combination of motifs reveals that the Temple of Dea Dia draws inspiration from a variety of sources, both Flavian and farther afield.

Similarly, the entablature of the ‘Pantheon’ at Ostia (#23), whose bases and capitals show clear Asiatic influence, combines Ionic cymatia characteristic of the Flavian period and Lesbian cymatia reminiscent of Augustan revival ornament. Its two-fascia architrave moreover is a prominent feature of Hadrianic buildings like the Temple of Venus and Roma. Ornament from Aurelian’s Temple of Sol (#53) includes an ornate Corinthian cornice, incorporating scrolling vines reminiscent of the

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340 Similar water spouts may be found in the rectangular court of the Sanctuary of Jupiter at Baalbek and the Octogon at Ephesos. Wiegand 1925, 108; Wegner 1992, 41.
341 Likewise, molding preserved from the door frame finds parallels in the Temple of Bacchus. Wiegand 1925, 97 and 108-9.
342 While the Hadrianeum in Rome provides an early example, this feature becomes more widespread under Constantine, when it appears in his Arch and Mausoleum of Constantina. Strong 1953, 141; Gros 2001, 495.
343 Ward-Perkins 1989, 317. The palmette antefixes also have an Eastern flavor.
344 Lanciani 1868c, 107.
345 Although Lanciani (1868c, pl. 5) saw its entablature as Ionic, not enough is extant to confirm his reconstruction.
346 Wegner 1957, 55. Wilson Jones (2000, 20 fig. 1.5) notes that the ring tracery in-between the dentils is a common Flavian feature.
348 Strong 1953, 140; Gros 2001, 494.
Nymphaeum of Pollio at Ephesos, and two anthemion friezes. The more elaborate frieze depicts a head whose hair and beard are formed from acanthus leaves, as well as smaller human and animal figures. While fantastical elements first appear in anthemion friezes of the Flavian period, the Temple of Sol’s frieze more closely recalls ornament from Leptis Magna and Baalbek. Rather than imported products, G. Gullini suggests that the Asiatic ornament of the Temple of Sol, as well as comparable motifs from the Temple of Dea Dia and the ‘Pantheon’ at Ostia, be attributed to Eastern workshops active in Rome since the Hadrianic period.

**Soffits panels and ceiling coffers**

As in the Flavian and Antonine periods, most third and early fourth century round temples feature rosette soffit panels in their modillion cornices. More elaborate soffit panels are preserved from the Temple of Sol (#53). Recessed within a frame of Ionic and Lesbian cymatia, these long, rectangular soffits bulge with a band of oak leaf decoration. Though layered, the leaves appear flat and ornamental with any naturalistic detail overshadowed by the soffits’ massing and overlapping design. For their decoration, M. Wegner points to parallels from the Baths of Caracalla and the late third century rebuilding of the Macellum at Pozzuoli.

While the Temple of Vesta’s (#57) ceiling coffers, like its soffit panels, include simple rosettes, ceiling coffers from the porch of the Temple of Tyche at

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349 Koenigs and Radt 1979, pls. 118b-c.
350 Wegner 1957, 43. The Domus Augustana and the Arch of the Argentari provide good examples. Gullini 1960, 35.
352 Gullini 1960, 36, and see Chap. VI.
353 See Chap. VI ‘Soffit panels and ceiling coffers.’
354 Rosette soffit panels are extant from the Temple of Vesta (#57 and see below), the ‘Pantheon’ at Ostia (#23), and the Temple of Tyche at Baalbek (#7).
356 Wegner 1957, 97; cf. Leon 1971, 175 pl. 71 (possible precedents in the Temple of Mars Ultor). Soffit panels re-used in the Cathedral at Benevento have a comparable form, though they include flowers and acanthus swirls. Wegner 1957, pls. 28a-b.
Baalbek (#7) feature an intricate central medallion. Each corner of the square medallion is elaborated by an arc whose central flower is encased in vine tendrils. Comparable to ceiling coffers from the Temple of Bacchus, these point to local influences on the decoration of the Temple of Tyche.

**Pavements and wall revetment**

Though less dramatic than the floor and wall revetment of Hadrian’s Pantheon (#50), the majority of third and early fourth century round temples employed *opus sectile* as part of their ornament. Closest to the Pantheon are the Abaton at Pergamon (#26) and the ‘Pantheon’ at Ostia (#23), which included multi-colored geometric pavements. While diagonals framing roundels visually linked the Abaton’s apses and dome, the ‘Pantheon’s’ pavement helped to unite its porch and drum in a single composition. The white marble floors of the Temples of Vesta (#57) and of Fortuna on the Pincio (#37), and probably of the Temples of Tyche at Baalbek (#7) and of ‘Romulus’ at Rome (#52), had more basic designs, but played a similar role in unifying each Temple’s structural and decorative elements.

Black marble revetment added contrast to the walls of the Temple of Fortuna, while white marble facing related the walls of the ‘Temple of Romulus’ Flavian hall to its floors. Moreover, stucco work on the façades of its rotunda and side halls linked the ‘Temple’ with nearby monuments on the via Sacra.

Like the neighboring Temple of Zeus Asklepios Soter (#27), the upper level of the Abaton included multi-colored limestone and glass mosaics to accent its cupola and semi-domes. Fragments of this mosaic show that it combined geometric motifs

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357 Wiegand 1925, 104.
358 Ziegenaus 1981, 95.
359 Frazer 1964, 98 and 114.
360 See Chap. VI.
similar to the paving’s with swirling vegetal ornament. While the Abaton’s marble pavement linked its floor and elevation, its mosaic work, like the mosaic decoration of the Temple of Asklepios, emphasized the dramatic qualities of its soaring roof independently of the massive foundations and superstructure necessary for its support.

**Statuary and reliefs**

While coins may depict cult images in the cellas of the Temples of Melampous at Aigosthena (#1) and of Tyche at Baalbek (#7) and in the side halls of the ‘Temple of Romulus’ (#52), the Arval Annals suggest that the Temple of Dea Dia (#35) contained at least two statues, one of which may have represented the goddess. Like these statues, which celebrated the Temples’ cults, the images of Alexander Severus, Gordian III and his wife, displayed in the cella or court of the ‘Pantheon’ at Ostia (#23) support its attribution to the Imperial cult.

Somewhat different are Aurelian’s dedications at the Temple of Sol (#53). Though he included statues of Sol in his Eastern guises Bel and Helios, a statue of Jupiter and an image of himself as Sol’s earthly counterpart, most of his decoration comprised booty from Palmyra. By incorporating spoils like paintings, jewelry, gems, and clothing into the Temple’s decorative scheme, Aurelian revived a practice...

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361 Ziegenaus 1981, 100.
362 See Chap. VI.
363 As has been suggested for the Temple of Vesta (see Chap. V #57), it is also possible that the gods provided a means of identifying the Temples illustrated on the coins. By this reasoning, the image of Juno Martialis (#45) is not inconsistent with a temporary temple or a temple that was vowed, but never built.
364 The Temple’s aediculae indicate that it once incorporated a sizable statue display.
365 Hadrian’s Pantheon (#50) may be comparable, see Chap. VI ‘Statuary and reliefs.’
366 See #53.
common in the late Republic, whereby successful generals used booty to fund and ornament their victory temples.367

The altar of the Temple of Dea Dia and reliefs above the aediculae of the Temple of Tyche are more typical of Imperial practice. While the sides of the altar depict garlands alternating with bucrania, the reliefs include garlands borne by putti.368 On the reliefs, the garlands appear beneath rosettes and heads,369 which recall motifs from the Temples of Tyche at Side (#59) and of Bacchus at Baalbek.370 To garland, bucrania, and putti friezes known from the late Republic,371 motifs like heads and animals were added by the Flavian period372 to become a common feature of Asiatic ornament under the Severan and third century emperors.373

**PROPORTIONAL ANALYSIS (Charts VII.1-8)**

Whereas the guidelines laid out by Vitruvius had some relationship to the design of Flavian and Antonine round temples,374 third and early fourth century monopteroi and peripteroi do not correspond to his ideals and, of the drums, only the Temple of Dea Dia (#35) shows a 1:10 relationship between its lower column diameter and column height.375 Similarly, in the columnar orders, few beyond Ligorio’s systyle Temple of Sol (#53)376 and the pycnostyle Temple of Vesta (#57)377 demonstrate a correlation to Vitruvius’ guidelines for proportion. Moreover, only the

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367 See Chap. IV ‘Introduction.’ A good example of this phenomenon is the Temple of Hercules and the Muses (#42).
376 Garlands supported by putti figure in the Temples of Bacchus at Baalbek and of Bel at Palmyra. Wegner 1992, 40.
369 Wiegand 1925, 100.
372 The entablature of the Shrine of Sulis-Minerva at Bath (#8) serves as a good example.
374 See Chap. VI ‘Proportional analysis’
375 This ratio is employed by the peripteral Temples of Vesta (#57) and of Tyche at Baalbek (#7).
376 His reconstruction is systyle based on its intercolumnation to lower column diameter relationship.
377 The Temple is pycnostyle from its column height to lower column diameter, a relationship approximated by the Temple of Tyche at Baalbek (#7).
Temple of Dea Dia and the ‘Pantheon’ at Ostia (#24) echo the 1:1 relationship between the lower column diameter and the capital height which he recommends for the Corinthian order.

When the entire columnar order is compared to the lower column diameter, the resulting pattern is less coherent than for Flavian and Antonine round temples. Even so, relationships like the 1:10 ratio between column height and lower column diameter\(^{378}\) and the 1:8 ratio between shaft height and lower column diameter\(^{379}\) are employed. Moreover, a few temples approximate Wilson Jones’ 6:5 rule for column to shaft height.\(^{380}\)

More erratic are the results of a comparison of their structural elements to their critical dimensions. For example, the column heights range from about 1/5 to 3/5 of the critical dimensions, while the roof diameters, often close to critical dimensions based on stylobate or total exterior measurements, are as little as one-half.\(^{381}\) Moreover, individual temples are more inconsistent in their use of proportional relationships than in earlier periods, with structural elements representing both simple and complex fractions of their critical dimensions.\(^{382}\)

Finally, an analysis of their floor space and volume in relation to their critical dimensions shows a great deal of divergence. Notably, the Abaton at Pergamon (#26), with twice the critical dimension of the ‘Pantheon’ at Ostia, has a volume over seven times greater.

\(^{378}\) This ratio is employed by the Temples of Vesta, Dea Dia and Tyche at Baalbek.

\(^{379}\) This features in the Temples of ‘Romulus’ (#52), Dea Dia, and Tyche.

\(^{380}\) The ‘Pantheon’ at Ostia (#24), the Temple of Dea Dia and the Temple of Sol, as reconstructed by Ligorio, come close.

\(^{381}\) The roofs of the Temples of Vesta and ‘Romulus’ represent approximately half of their critical dimensions.

\(^{382}\) See #57, 52, and 24, for the range of fractions employed in the Temples of Vesta and ‘Romulus,’ and the ‘Pantheon’ at Ostia. Although Wilson Jones (1989b, 112-14) uses other critical dimensions for the ‘Temple of Romulus’ and the ‘Pantheon’ at Ostia, his fractional relationships are no more simple or satisfactory.
IV  CONCLUSION

Although the rich ornament of the Flavians fell out of favor in the Antonine period, it experienced a renaissance under the Severan emperors, who chose Flavian-style decoration to elaborate many of their building projects. While they employed this style in the Temple of Vesta (#57), some of their works, like the Arch of Septimius Severus, show a closer allegiance to Augustan Classicism. Another distinct influence on third century ornament is Asiatic. As in Hadrian’s Pergamene-inspired buildings, round temples like the ‘Pantheon’ at Ostia (#23) and the Temple of Dea Dia (#35) include Eastern elements in their decoration. The same may be said for the Temple of Tyche at Baalbek (#7) and to some extent, the Abaton at Pergamon (#26), whose ornament reflects local styles.

Like the Severan round temples, the decoration of Aurelian’s Temple of Sol (#53) recalled earlier monuments, specifically the Baths of Caracalla. The early fourth century ‘Temple of Romulus’ (#52) goes farther by reusing ornament, a practice that finds favor in early Christian architecture. Coupled with its ornate Flavian and Severan decoration, the ‘Temple’ employs colored marble columns and niches to enliven its façade. Known from Hadrian’s Pantheon (#50), these features,

383 Strong 1953, 121-2, 140 and 147; Gros 1996a, 185.
384 Strong 1953, 151 n. 150.
385 Strong 1953, 140-1; Gros 1996a, 185; vs. Sear (1982, 257), who suggests that the Arch’s ornament anticipates late Imperial decoration. The reintroduction of Augustan Classicism after the Julio-Claudian period was inspired by Trajan and Hadrian, see Chap. VI ‘Building components.’
386 Economic prosperity in the provinces resulted in considerable building activity, whose influence was felt throughout the empire. Gros 1996a, 185.
387 See Chap. VI ‘Conclusion.’
388 Another prominent example is Caracalla’s Temple of Serapis. Ward-Perkins 1989, 134.
389 This is based on its location, since very little of its ornament is preserved.
390 Strong 1953, 141.
391 Strong 1953, 141; Frazer 1964, 104.
together with stucco and mosaic work, become common in the fourth century as the quality of carved ornament declines.\textsuperscript{392}

Decline is also an aspect of the proportional relationships employed by third and fourth century round temples. Whereas clear patterns of proportions defined the columnar orders of round temples as a whole, as well as the structural elements of some individual examples, in the Flavian and Antonine periods, later round temples are widely divergent in the ratios and fractions they feature.

This is not surprising as their materials, techniques and plans become more varied. While the ‘Pantheon’ at Ostia and possibly the Temple of Sol take their lead from Hadrian’s Pantheon, buildings like the Abaton and the ‘Temple of Romulus’ are highly inventive. In-between is the Temple of Tyche at Baalbek which, in its combination of a porch and a peripteros, has precedents from the late Republic, but employs an abundance of rounded forms that lend it greater vitality than Republican temples like that of Fortuna Huiusce Diei (#38).

\textsuperscript{392} Ward-Perkins 1989, 430.
CHAPTER VIII: CONCLUSION

With a rich and varied history, round temples made a significant contribution to the development of Roman architecture. Literary tradition includes them among the earliest buildings in Rome, while they continue to form part of her architectural repertory until the Christian period. Throughout their use, round temples appear as monopteroi, peripteroi and drums. Whereas monopteroi and peripteroi, ringed by columns, emphasize their exterior, drums focus on shaping interior space. This distinction forms one of the defining features of Roman round temples, whose structural and stylistic similarities to rectangular temples situate them within the context of Roman architecture.

This thesis has examined round temples as an architectural type from the first attested examples through those of the early fourth century AD. Some of the earliest round temples, like the Mundus (#49), the Temple of Vesta (#57), and the Shrine of the Penates at Lavinium (#17), were closely tied to Rome’s origins. In the late Republic, they were joined by several new temple foundations, which celebrated the architectural legacy of Greece.

Greece provided models for form and ornament, whose influence may be felt throughout the Imperial period. Most relevant are Greek tholoi or round buildings, elements of which are reflected in the design of Roman round temples. As military campaigns opened up the Greek world to Roman rule, generals returned to Italy with booty and the desire to found temples, both round and rectangular. Round victory temples, like those of Hercules Victor ad portam Trigeminam (#44) and of Hercules and the Muses (#42), followed Greek trends in design and ornament as a way of drawing attention to their founders’ achievements.
In the early Imperial period, round temples began to spread throughout the Roman world. The first to be built outside of Italy, like the Temple of Roma and Augustus on the Athenian Acropolis (#4), were located in Greek areas. This Temple is also significant as one of several Greek examples to honor the emperor together with the personification of the Roman state.\textsuperscript{1} Though not strictly the Imperial cult, Augustus may also be celebrated in Agrippa’s Pantheon (#50) at Rome.

Hadrian’s rebuilding of the Pantheon is the highpoint of the next era in round temple building. Not only was his monument one of the finest achievements in Roman architecture, but his reign marks the greatest expansion of the empire coupled with the widest distribution of round temples. The Pantheon’s design and use of rich materials and ornament influenced later round temples, notably that of Zeus Asklepios Soter at Pergamon (#27) and the ‘Pantheon’ at Ostia (#24).

The Ostian ‘Pantheon’ may be dated to the last phase of the type’s development, namely the third and early fourth centuries AD. Many of the elements that characterize earlier round temples continue to feature in this period, while two notable examples, the Abaton at Pergamon (#26) and the ‘Temple of Romulus’ (#52), introduce new variations. With the Abaton, the round form becomes a shell for two distinct levels, while in the ‘Temple of Romulus,’ a drum is bounded by rectangular halls.

This analysis of the historical development of round temples has highlighted reasons why the type had such a lasting attraction. Ancient authors attest to the appeal of the round form, specifically of round temples, when they attribute celestial connotations to domes and vaults.\textsuperscript{2} Some modern scholars have drawn on these sources to explain the form of Hadrian’s Pantheon (#50). Although ancient and

\textsuperscript{1} See Chap. V #4.
\textsuperscript{2} See Chap. II ‘Cosmic implications of the round form?’
modern visitors alike may be reminded of the heavens when entering his drum, it is unlikely that the original Pantheon, built by Agrippa, could have elicited the same response.³

Based on studies of Greek tholoi, scholars have proposed that round temples honored chthonic or earth-bound gods in addition to Vesta as the goddess of the hearth.⁴ This analysis of round temples has shown that, while Vesta and hero gods like Hercules, Asklepios, Palaimon-Melikertes, and Melampous received round temples,⁵ their dedications are outnumbered by those to other gods and goddesses. Fortuna and her Greek counterpart Tyche were honored with seven,⁶ the Imperial cult with up to five,⁷ and Venus-Aphrodite with four.⁸ Moreover, many of the gods who had round temples were also commemorated with rectangular temples, suggesting that the round form was not a requirement of their cults.⁹

Even so, round temples may have had a special appeal for chthonic cults that employed pits in their rituals. As in the Tholos in the Sanctuary of Asklepios at Epidaurus (#13), pits were embedded in the foundations of the Temples of Vesta (#57) and of Hercules Victor ad portam Trigeminam (#44), while corridors were incorporated into the Temples of Dea Dia (#35), Palaimon-Melikertes at Isthmia (#15), the Nymphs at Argos (#2), and most prominently, the Abaton in Asklepios’ sanctuary at Pergamon (#26). Like the pit of the Temple of Vesta, which may have

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³ See Chap. V #50.
⁴ See Chap. I ‘Introduction.’
⁵ Temples of Vesta: #57, Hercules: #41-4 and possibly #25, Asklepios: #13 and 26-7, Palaimon-Melikertes: #15, and Melampous: #1.
⁶ #7, 30-1, 36-8, and 59.
⁷ #22-4 and possibly #50 and 52.
⁸ #9, 16, 55, and 63.
⁹ See Chap. III #47 for a discussion of Servius’ statement (Aen. 9.406) that round temples were dedicated to Vesta, Diana, and either Hercules or Mercury.
collected ashes from her sacred fire,\textsuperscript{10} the pits and corridors employed in the other round temples probably fulfilled important religious functions.\textsuperscript{11}

Comparable to pits are the wells beneath the Monopteros at Pompeii (#28) and the Shrine of Fortuna Primigenia at Praeneste (#30), which may identify them as the mundi of their cities.\textsuperscript{12} The Shrines of Venus in the Horti Sallustiani (#55) and of Aphrodite at Tibur (#63) also responded to a religious imperative. They probably mirror the famous Temple at Knidos (#16), which, if correctly identified as round, would mark the beginning of a long-standing tradition of round shrines to Aphrodite.\textsuperscript{13}

Social considerations also contributed to the use of the round form, in so far as patrons had a significant influence on the appearance of their temples. In addition to late Republican victory temples, whose founders employed the form as a reflection of Greek tholoi,\textsuperscript{14} the patron of the Temple of Zeus Asklepios Soter at Pergamon (#27) may have imitated the design of the Pantheon (#50) in deference to Hadrian. Moreover, these buildings, like rectangular temples, used lavish materials and sculptural displays to underline the wealth and status of their founders.\textsuperscript{15}

Like the use of the round form, social factors influenced the location of some round temples. The placement of the Temple of Fortuna Huiusce Diei (#38) was determined by its patron’s desire to link it to the foundation of his illustrious “ancestor,”\textsuperscript{16} while the Temple of Fortuna on the Pincio (#37) lies on axis with the Mausoleum of Augustus, a potent symbol of the Imperial cult.\textsuperscript{17}

\textsuperscript{10}See #57.
\textsuperscript{11}See Chap. VII #26.
\textsuperscript{12}See Chap. IV #28 and 30.
\textsuperscript{13}See Chaps. IV #55 and VI #63.
\textsuperscript{14}See above and Chap. IV ‘Introduction’
\textsuperscript{15}See Chap. VI #50.
\textsuperscript{16}See Chap. IV #38.
\textsuperscript{17}See Chap. V #37.
Where social considerations cannot account for their location, the intrinsic advantages of areas like the acropolis at Tibur\textsuperscript{18} may explain the siting of some round temples. However, more common locations for round temples are sanctuaries and urban settings. While, in the former, round temples usually formed the focal point of a vast complex, like the Temple of Dea Dia (#35) and to some extent, the Temple and Shrine of Fortuna Primigenia at Praeneste (#30-1), those built in urban locations were often required to fit within rectilinear grids.

In the context of an urban grid, round temples could adapt or form a deliberate contrast to their surroundings. From the late Republic, porticoes accommodated round temples within grid patterns. The Temple of Hercules and the Muses (#42), for example, employed a portico to align it with the neighboring Porticus Octaviae and the Circus Flaminius. Set between the Shrine of the Camenae (#33) and a semicircular schola, the Temple was framed by complementary forms.\textsuperscript{19} In the sanctuaries of Palaimon-Melikertes at Isthmia (#15) and of Sol at Rome (#53), rectangular porticoes reserved open space around the temples to highlight their circularity from every angle.\textsuperscript{20}

Some drums like Hadrian’s Pantheon (#50), the Temple of Zeus Asklepios Soter at Pergamon (#27), and the ‘Pantheon’ at Ostia (#24) employ porches to lend their façades the appearance of rectangular temples. While both Pantheons also use forecourts to align them within urban grids, the Temples of Fors Fortuna (#36) and of ‘Romulus’ (#52) incorporate rectilinear elements like platforms and side halls into their design.\textsuperscript{21} In some cases, round shrines like the Perirrhanterion (#51) and the

\textsuperscript{18} See Chap. IV #64.
\textsuperscript{19} This also applies to the Shrine of Apollo Delphinios at Miletos (#19), which is flanked by semicircular exedrae.
\textsuperscript{20} The Temple of Tyche at Side (#59) and the Shrines of Hermes and Maia on Delos (#10) and of Sulis-Minerva at Bath (#8) were also set within porticoes.
\textsuperscript{21} See Chap. VII “Temple foundation and location.”
Shrine of Aphrodite at Tibur (#63) responded to curved forms in their built or natural environments.22

Whereas the use of rectangular porticoes marks a typically Roman response to the siting of temples, many follow Greek tholoi by occupying areas that lack clear architectural definition.23 Without porticoes, the Temples of Hercules in and around the forum Boarium (#43-4) rely on their round forms to distinguish them from neighboring buildings. This contrast is accentuated by the rectangular Temple of Portunus that stands next to the Temple of Hercules Victor ad portam Trigeminam (#44). Similarly, the rectangular temple that accompanies the Round Temple at Tibur (#64), together with its dramatic location, emphasizes its round form.

Like their locations, the ability of monopteroi to showcase statues from every angle was an important factor in some temples’ use of the round form. Prominent examples include the Rotunda at Corinth (#9) and the Shrine of Aphrodite in Hadrian’s Villa (#63), both of which exhibited statues of the goddess in a context reminiscent of her Temple at Knidos (#16). The display of cult statues was also an important consideration for the patrons of the Temple of Palaimon-Melikertes at Isthmia (#15) and probably of the Temple of Roma and Augustus on the Acropolis (#4).

Similarly, statue display was a factor in the design of the peripteral Temple of Fortuna Huiusce Diei (#38), which, like rectangular temples, exhibited its cult statue against the back of its cella wall.24 In its second phase however, the Temple was

22 See Chaps. V and VI ‘Temple foundation and location.’
23 This is also true for the Temple of Roma and Augustus (#4) and the Rotunda (#5) at Athens, the Shrine of the Lares Augusti at Ostia (#23), the Monopteros at Pompeii (#28), and the Temple of Vesta (#57), the Shrine of Bacchus (#32), and the Tholus of Cybele (#34) at Rome.
24 According to some Renaissance plans, the Theater Shrine at Tibur (#65) may have displayed its main statue in a similar way, see Chap. VI #65.
rebuilt as a drum to visually balance statue groups added to flank its stairs.\textsuperscript{25} Moreover, some round temples incorporated niches or aediculae, like the Pantheon (\#50), to impress their visitors with statues on all sides.\textsuperscript{26}

In addition to their form, this thesis has addressed influences on the design and ornament of Roman round temples. Following her expansion into Greece, elements like ashlar foundations, stepped krepes and timber roofs known from tholoi feature in the Roman repertory. They appear concurrently with Roman brick and concrete foundations, podia, and domes. Round temple builders drew on both traditions in their designs, favoring the Greek for some buildings like the Temple of Hercules Victor \textit{ad portam Trigeminam} (\#44), which was intended to convey its founder’s Greek tastes, and the Roman for others like the Temple of Fortuna Huiusce Diei (\#38). Required to fit within a complex of rectangular temples, this Temple used its Roman podium and steps to deny its roundness and lend it the same visual axis and orientation as its neighbors.

Beyond these design elements, Roman round temples employ the same basic forms as Greek tholoi. However, while their monopteroi and peripteroi are comparable, Greek drums, lacking cupolas, do not have the same volume or visual impact as their Roman counterparts. Similarly, the drum’s emphasis on shaping interior space, used to great effect in the Pantheon (\#50), is more a feature of Roman round temples.

In their ornament, Roman round and rectangular temples alike draw from the Greek architectural repertory. Augustus’ architects, looking to Greece for inspiration, formulated the ‘Classical style’ followed by many of his successors. The perseverance of Greek motifs in Roman architecture is demonstrated by round

\textsuperscript{25} See Chap. IV \#38.
temples built in the Greek world. In their decoration, temples like the Rotunda at Corinth (#9) are equally appropriate to Greece and Rome. The most prominent example however is the Temple of Roma and Augustus at Athens (#4), which derived its form and proportions, together with its ornament, from the Classical Erechtheion. The Erechtheion in turn inspired the use of caryatids in Agrippa’s Pantheon (#50) as well as in the Forum of Augustus at Rome. Although local influences are more apparent in the ornament of round temples built in Asia Minor,27 the Temples of Tyche at Side and Baalbek (#59 and 7) employ Roman podia and the Temple of Zeus Asklepios Soter at Pergamon (#27) imitates the design of Hadrian’s Pantheon.28

In their proportions, Doric round temples follow both Greek tholoi and Vitruvius, while Ionic and Corinthian examples begin to show a pattern of their own by the early Imperial period. Their columnar orders attain a consensus of proportions under the Flavian and Antonine emperors, though, in other aspects of their design, round temples are remarkable for their variety. As a result, their analysis has raised doubts about the approach of Vitruvius and M. Wilson Jones, who propose strict rules for temple design.

Though the range in proportions and size is remarkable for buildings of a single architectural type, round temples have some features in common. Most early peripteroi favor a 3:5 relationship between their cella and stylobate diameters, as recommended by Vitruvius,29 and many round temples place an emphasis on height. Unlike rectangular temples, whose main axis is horizontal, round temples focus on the vertical. This results in monopteroi like the Rotunda at Athens (#5), which appear

26 The Shrine of Venus (#55) may have included niches along the exterior of its cella wall, while the Temple of Tyche at Baalbek (#7) has both internal and external aediculae.
27 For example, see Chap. VII ‘Soffit panels and ceiling coffers.’
28 See Chap. VI #27 and ‘Proportional analysis.’
29 See Chap. IV ‘Proportional analysis.’
disproportionately tall for their diameter, and drums like the Pantheon (#50), whose volumes far surpass their floor space.30

When choosing between round and rectangular forms for their temples, patrons must have evaluated the religious, social, topographical and aesthetic impacts of their decision. Though most preferred the rectangular form, those who built round temples would have been attracted to their versatility. Their ability to draw attention in virtually any setting must have been appealing to patrons who wanted to broadcast their religious devotion and social status. This may have contributed to round temples’ popularity in the late Republic, when Roman military conquests provided the primary impetus for their construction,31 and under the reign of Hadrian. His Pantheon (#50), described by its contemporaries as a reflection of the heavens,32 not only inspired the design of round temples into the early fourth century AD, but continues to act as a major landmark in Rome and a milestone in the history of her architecture.

30 See Chart VI.8.
31 This is assured by an analysis of the augural techniques employed in defining templum spaces, which has demonstrated that the dearth of round temples prior to the late Republic cannot be explained as a reflection of legal or religious constraints. See Chap. III ‘Augural divination in Archaic Italy: defining the Roman templum.’
32 See Cass. Dio 53.27 (quoted in #50) and Chap. VI #50.
NOTES ON ANCIENT SOURCE CITATIONS AND THE BIBLIOGRAPHY

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Latin sources and inscriptions are cited according to the abbreviations found in the *Thesaurus Linguae Latinae. Index* (1990).

For Greek sources, a comparable method is employed. For the author's name, the first syllable or first and second syllables, if the first does not end in a consonant, is cited. This is followed by the work cited by its Latin name and abbreviated according to the guidelines of the *Thesaurus Linguae Latinae. Index* (1990).

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Naja Regina Armstrong
Magdalen College
University of Oxford

ROUND TEMPLES IN ROMAN ARCHITECTURE
OF THE REPUBLIC THROUGH THE
LATE IMPERIAL PERIOD

Submitted for the degree of
D.Phil. in Classical Archaeology
Trinity Term 2001

VOLUME II
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## NOTES ON THE TABLES AND CHARTS

### CATALOGUE ENTRIES

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<td>Olympia: Philippeion</td>
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<td>Portus: Liber Pater Commodianus, Shrine</td>
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<td>#30</td>
<td>Praeneste: Fortuna Primigenia, Shrine</td>
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<td>#31</td>
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<td>Rome: Camenae, Shrine</td>
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<td>#34</td>
<td>Rome: Cybele, Tholus</td>
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<td>#35</td>
<td>Rome: Dea Dia, Temple</td>
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<td>#36</td>
<td>Rome: Fors Fortuna, Temple</td>
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<td>Table, Plan, Plates</td>
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<td>#37</td>
<td>Rome: Fortuna, Temple</td>
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<td>Table, Plan, Plates</td>
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<td>#38</td>
<td>Rome: Fortuna Huilusce Diei, Temple</td>
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<td>Table, Charts (I and II), Plans (I and II), Plates (I and II)</td>
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<td>Rome: Genius Senatus, Shrine</td>
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<td>#40</td>
<td>Rome: Gens Flavia, Temple</td>
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<td>Plates</td>
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<td>#41</td>
<td>Rome: Hercule, Shrine</td>
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<td>#42</td>
<td>Rome: Hercule and the Muses, Temple</td>
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<td>#43</td>
<td>Rome: Hercules Victor in foro Boario, Temple</td>
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<td>Table, Chart, Plan, Plates</td>
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<td>#44</td>
<td>Rome: Hercules Victor ad portam Trigeminam, Temple</td>
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<td>Table, Chart, Plan, Plates</td>
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<td>#45</td>
<td>Rome: Juno Martialis, Temple</td>
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<td>#46</td>
<td>Rome: Mars Ultor, Temple</td>
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<td>Plates</td>
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<tr>
<td>#47</td>
<td>Rome: Mercury, Temple</td>
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<td>#48</td>
<td>Rome: 'Minerva Chalcidica, Temple'</td>
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<td>Rome: Pantheon</td>
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<td>#51</td>
<td>Rome: Perirrhantieron</td>
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<td>Table, Chart, Plan, Plates</td>
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<td>#52</td>
<td>Rome: 'Romulus, Temple'</td>
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<td></td>
<td>Table, Chart, Plan, Plates</td>
</tr>
</tbody>
</table>
ROME: Sol, Temple
Table, Charts (Ligorio, Palladio), Plans (Ligorio, Palladio), Plates

ROME: Spes Vetus, Shrine
Plates

ROME: Venus, Shrine
Table, Plan, Plates

ROME: Vesta, Shrine
Plates

ROME: Vesta, Temple
Table, Chart, Plan, Plates
#1 AIGOSTHENA: Melampous, Temple

**Context:** unknown

**Date:** under Geta: coins (see 'Iconographic sources' below)

**Description:** round monopteros with a domed roof

**Remains:** none

**Literary and epigraphical sources:**
- *Sanctuary of Melampous:* IG VII 219 and 223, and Paus. 1.44.5 (yearly festival in honor of Melampous at Aigosthena). IG VII 207, 208, 219, and 223 (Melampodeion where the festival was held).

**Iconographic sources:** coins minted under Geta (see Head and Poole 1888, lxii and Imhoof-Blümer and Gardner 1888, 9)


**Text:** 218.
Context: Agora, to the N of the Hellenistic portico; orientation unknown (see Roux 1954, 162)

Date: 2nd c. AD: the quality of the workmanship (see text) and the letter forms of the inscription (see Roux 1954, 162 and 'Literary and epigraphical sources: Inscriptions from Remains' below)

Description: round monopteros? (8 m. in dia., marble, see text) resting on a socle (16 by 16 m., incl. a pit accessed by stairs and a corridor) with 8 columns (Attic bases, monolithic shafts, Corinthian capitals), a Corinthian entablature (a 3-fascia architrave, an inscribed frieze course, a modillion cornice, and a sima with lion-head water spouts, see text), and a conical roof topped by an acanthus finial

Remains: part of the foundations (marble-revetted poros with the corridor revetted in limestone?, see Roux 1954, 162), the stylobate (marble, resting on 8 poros piers, preserves traces of the cella wall?, see Roux 1954, 162 and text), the columns, the entablature, leaf-shaped roof tiles, and the acanthus finial (marble)

Literary and epigraphical sources:
- Inscriptions from 'Remains': ΤΩΝ ΠΗΓΩΝ ΚΑΙ ΤΟ ΝΥΜΦΑΙΟΝ ΜΕΤΑ ΤΩΝ ΑΟΧΕΙ琼Ν (dedicatory inscription, entablature, see Roux 1954, 160).

Excavations: G. Roux in 1953-1955


Text: 184-5.
<table>
<thead>
<tr>
<th>ARGOS: Nymphs, temple</th>
<th>actual measurements</th>
<th>meters</th>
<th>roman feet</th>
<th>roman feet</th>
<th>difference</th>
<th>% to critical dimension</th>
<th>within columnar order **</th>
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<tbody>
<tr>
<td>Monopteros ext. *</td>
<td>8</td>
<td>27</td>
<td>1</td>
<td>1/4</td>
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<tr>
<td>Pit dep.</td>
<td>2</td>
<td>6.8</td>
<td>1</td>
<td>1/4</td>
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<tr>
<td>Pit wid.</td>
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<td>3.4</td>
<td>1</td>
<td>1/8</td>
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<td></td>
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<tr>
<td>Pit stair risers</td>
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<td>1.2</td>
<td>2</td>
<td>1/16</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Corridor wid.</td>
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<td>1.7</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socle len.</td>
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<td>54</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socle wid.</td>
<td>16</td>
<td>54</td>
<td>2</td>
<td></td>
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</tr>
<tr>
<td>Total hei. (columns)</td>
<td>4.5</td>
<td>15.2</td>
<td>9/16</td>
<td>10</td>
<td></td>
<td></td>
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<tr>
<td>Lower column dia. **</td>
<td>0.45</td>
<td>1.52</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>4</td>
<td>13.5</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Base hei.</td>
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<td>0.7</td>
<td>0.75</td>
<td>7.1%</td>
<td>1/36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.3</td>
<td>1</td>
<td>1</td>
<td></td>
<td>2/3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaxial dia.</td>
<td>7.2</td>
<td>24.3</td>
<td>24</td>
<td>-1.2%</td>
<td>8/9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entablature hei.</td>
<td>1.3</td>
<td>4.4</td>
<td>4/25</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Architrave hei.</td>
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<td>1/18</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.45</td>
<td>1.5</td>
<td>1/18</td>
<td></td>
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<tr>
<td>Floor space (square measure)</td>
<td>50.3</td>
<td>572.6</td>
<td>10</td>
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<th>meters</th>
<th>roman feet</th>
<th>roman feet</th>
<th>difference</th>
<th>% to critical dimension</th>
<th>within columnar order **</th>
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</thead>
<tbody>
<tr>
<td>Total hei. (monopteros)</td>
<td>10.7</td>
<td>36.1</td>
<td>36</td>
<td>-0.4%</td>
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<td>1/3</td>
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<td>Stylobate wid.</td>
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<td>28.7</td>
<td>13/12</td>
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<tr>
<td>Stylobate hei.</td>
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<td>0.7</td>
<td>1/40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base dia. (columns)</td>
<td>0.8</td>
<td>2.7</td>
<td>1/10</td>
<td>1/10</td>
<td>1</td>
<td>7/9</td>
</tr>
<tr>
<td>Capital dia.</td>
<td>1.25</td>
<td>4.2</td>
<td>2/13</td>
<td>2/13</td>
<td>1/18</td>
<td>2/7/9</td>
</tr>
<tr>
<td>Dental hei.</td>
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<td>0.5</td>
<td>1/54</td>
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</tr>
<tr>
<td>Cornice wid.</td>
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<td>1.5</td>
<td>1/18</td>
<td></td>
<td></td>
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<tr>
<td>Cornice hei.</td>
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<td>0.8</td>
<td>1/32</td>
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<td>1/40</td>
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<td>1.2</td>
<td>1/23</td>
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<tr>
<td>Roof dia.</td>
<td>7</td>
<td>23.6</td>
<td>7/8</td>
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</tr>
<tr>
<td>Roof hei.</td>
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<td>9.1</td>
<td>9</td>
<td>-1.3%</td>
<td>1/3</td>
<td></td>
</tr>
<tr>
<td>Volume (cubic measure)</td>
<td>91.5</td>
<td>2162.1</td>
<td>99</td>
<td>-1.3%</td>
<td>1/3</td>
<td></td>
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Note: *critical dimension** in relation to the lower column dia.

Source: Courbin 1953, 107 no. 1586 figs. 8-9.
Roux 1954, 160-2 figs. 5-8; 1957, 663-5 figs. 56-7.
#2 ARGOS:
Nymphs, temple
Scale 1:100
ATHENS: Lysicrates, Monument

Context: W side of the Street of the Tripods, leading to the Sanctuary of Dionysos; oriented E
Date: 335-334 BC: dedicatory inscription (see ‘Literary and epigraphical sources’ below)
Patron: Lysicrates
Description: drum (2.2 m. in dia., marble) on a 3-step square socle (3.275 m. per side) with 6
interior and exterior pilasters (Attic bases, Corinthian capitals), an Ionic entablature, and a
tent-shaped roof topped by a tripod finial
Remains: most of the foundations, socle (Pentelic marble), cella walls (Hymetic marble),
pilasters, entablature and roof (Pentelic marble)
Literary and epigraphical sources: Bauer 1977, 218-9 (dedicatory inscription naming
Lysicrates, architrave).
Decoration: roof with simulated scale-shaped tiles and a tripod finial; free-standing statue of
Dionysos by Praxiteles in the interior (see Weber 1990, 106, and Roux 1992, 195 and 200)
Excavations: visible since antiquity
Previous attributions: Roux (1992, 195 and 200) identifies it as a treasury built to showcase
statuary
Text: 34-8.
<table>
<thead>
<tr>
<th>ATHENS: Lysicrates, monument</th>
<th>ideal proportional relationships to critical dimension</th>
<th>within columnar order **</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>actual measurements</strong></td>
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<tr>
<td>Drum ext.</td>
<td>2.2</td>
<td>2/3</td>
</tr>
<tr>
<td>Drum int.</td>
<td>1.7</td>
<td>9/17</td>
</tr>
<tr>
<td>Total hei. (drum and socle)</td>
<td>9.54</td>
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<tr>
<td>Total hei. (drum)</td>
<td>6</td>
<td>1 5/6</td>
</tr>
<tr>
<td>Hei. to finial (drum and socle)</td>
<td>8.29</td>
<td>2 1/2</td>
</tr>
<tr>
<td>Hei. to finial (drum)</td>
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<td>1 4/9</td>
</tr>
<tr>
<td>Socle wid. at base *</td>
<td>3.275</td>
<td>1</td>
</tr>
<tr>
<td>Socle wid. at stylobate</td>
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<td>8/9</td>
</tr>
<tr>
<td>Socle hei.</td>
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</tr>
<tr>
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</tr>
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</tr>
<tr>
<td>Stylobate hei.</td>
<td>0.8</td>
<td>1/4</td>
</tr>
<tr>
<td>Door wid.</td>
<td>0.85</td>
<td>5/19</td>
</tr>
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<td>Door hei.</td>
<td>2.7</td>
<td>5/6</td>
</tr>
<tr>
<td>Total hei. (ext. and int. columns)</td>
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<td>1 1/12</td>
</tr>
<tr>
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</tr>
<tr>
<td>Base hei.</td>
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<td>1/22</td>
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<td>1/10</td>
</tr>
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<td>2.9</td>
<td>8/9</td>
</tr>
<tr>
<td>Capital dia.</td>
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<td>2/11</td>
</tr>
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<td>Capital hei.</td>
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<td>3/20</td>
</tr>
<tr>
<td>Intercolumnnation</td>
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<td>3/14</td>
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<tr>
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<td>1.2</td>
<td>3/8</td>
</tr>
<tr>
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<td>2.2</td>
<td>2/3</td>
</tr>
<tr>
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<td>0.85</td>
<td>4/15</td>
</tr>
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<td>Architrave hei.</td>
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</tr>
<tr>
<td>Frieze hei.</td>
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<td></td>
</tr>
<tr>
<td>Dentil hei.</td>
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<td>1 7/95</td>
</tr>
<tr>
<td>Cornice wid.</td>
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<td>Cornice hei.</td>
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<tr>
<td>Roof dia.</td>
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<td>12/13</td>
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<td>3/8</td>
</tr>
<tr>
<td>Finial hei.</td>
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<td>3/8</td>
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<td>Floorspace (square measure)</td>
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</tr>
<tr>
<td>Volume (cubic measure)</td>
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</table>

Note: * critical dimension  
** In relation to the lower column dia.

Source: Seller 1986, 136-47 fig. 61.  
Chart #3. ATHENS: Lysicrates, monument

Critical dimension = Socle wid. at base
#3 ATHENS:
Lysicrates, monument
Scale 1:50
ATHENS: Roma and Augustus, Temple

Context: Acropolis, between the Parthenon (E, 5th c. BC) and the Erechtheion (W, 5th c. BC, rebuilt in the Augustan period); oriented toward the Parthenon (E)
Date: 27-20 BC: dedicatory inscription (see ‘Literary and epigraphical sources: Inscriptions from Remains’ below and text)
Architect: Diogenes of Athens? (see text)
Patron: the Athenian people in honor of Augustus
Description: round monoportos (8.6 m. in dia., Pentelic marble) with a 3-step krepis, a screen wall, 9 columns (Attic bases, fluted shafts, Ionic capitals), an Ionic entablature, and a conical roof topped by a pineapple finial? (see Weber 1990, 224 cat. M18)
Remains: the foundations (poros? or native rock?, see text), krepis, euthynteria, and parts of the columns and inscribed entablature (Pentelic marble); an inscribed altar? was found nearby (Pentelic marble?, see text)

Literary and epigraphical sources:
Inscriptions from ‘Remains’: IG IIp 3173 = CIG 478 and IG III 1276 (dedicatory inscription, entablature). IG IIp 1076 (altar).

Iconographic sources: 3rd c. coins minted in Athens (see Svoronos and Pick 1924, pl. 98 nos. 19-43)

Decoration: cult statues of Augustus and Roma? (see text and Weber 1990, 114)
Excavations: L. Ross in the 1830s, F. C. Penrose in 1851, and P. Kavvadas and G. Kawerau in 1885-1890, with additional fragments found in 1962-1968; dedicatory inscription copied by Cyriacus of Ancona in 1436.


Text: 115-6.
### ATHENS: Roma and Augustus, temple

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<tr>
<th>actual measurements</th>
<th>meters</th>
<th>roman feet</th>
<th>ideal meters</th>
<th>roman feet</th>
<th>% difference</th>
<th>ideal proportional relationships to critical dimension</th>
<th>within columnar order **</th>
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<td>7.1</td>
<td>7</td>
<td>1.4%</td>
<td>1/4</td>
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<td></td>
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<td>Hei. to roof *</td>
<td>8.2</td>
<td>27.7</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Stair treads</td>
<td>0.33</td>
<td>1.11</td>
<td></td>
<td></td>
<td>1/25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stair risers</td>
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<td>0.91</td>
<td></td>
<td></td>
<td></td>
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</tr>
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<td>Krepis dia. at base</td>
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<td>29.1</td>
<td>30</td>
<td>3.1%</td>
<td>1</td>
<td>1/12</td>
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<td></td>
<td>8/9</td>
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<td>0.91</td>
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<td>1/9</td>
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<td></td>
<td>1/13</td>
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<td></td>
<td></td>
<td>1/8</td>
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<td>2.36</td>
<td>2.3</td>
<td>-2.2%</td>
<td>1/12</td>
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<td>24.49</td>
<td></td>
<td></td>
<td>8/9</td>
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<td>20.9</td>
<td>21</td>
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<td>3/4</td>
<td>8</td>
<td>3/4</td>
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<td>1/8</td>
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<td>2/5</td>
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<td>0.96</td>
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<td></td>
<td>2/5</td>
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<td>17.9</td>
<td>18.5</td>
<td>3.4%</td>
<td>2/3</td>
<td>7</td>
<td>11/24</td>
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<td>3.9</td>
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<td></td>
<td>1/7</td>
<td>1</td>
<td>5/8</td>
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<td>2</td>
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<td>5/6</td>
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<td>1/4</td>
<td>2</td>
<td>11/12</td>
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<tr>
<td>Interaxial</td>
<td>3.07</td>
<td>10.36</td>
<td>10.4</td>
<td>0.4%</td>
<td>3/8</td>
<td>4</td>
<td>1/3</td>
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<td>5.95</td>
<td>20.1</td>
<td>19.75</td>
<td>-1.7%</td>
<td>5/7</td>
<td>8</td>
<td>3/8</td>
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<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Frieze hei.</td>
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<td></td>
<td></td>
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<tr>
<td>Floorspace (square measure)</td>
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<td>39.6</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td>Volume (cubic measure)</td>
<td>6.6</td>
<td>162.9</td>
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</tbody>
</table>

### reconstructed measurements

| Total hei.                   | 9.6    | 32.4       | 1            | 1/6         |                                                        |                          |
| Entablature hei. (ext.)      | 1.5    | 5          |              | 2/11        |                                                        |                          |
| Dentil hei.                  | 0.1    | 0.3        |              |            |                                                        |                          |
| Cornice wid.                 | 0.33   | 1.11       |              | 1/25        |                                                        |                          |
| Cornice hei.                 | 0.2    | 0.7        | 0.7          | -1.1%       | 1/40         |                                                        |                          |
| Roof dia.                    | 7.35   | 28.83      | 28.8         | -0.1%       | 1           | 1/25                                                   |                          |
| Roof hei.                    | 1.15   | 3.89       |              |            | 1/7         |                                                        |                          |
| Finial wid.                  | 0.4    | 1.4        | 1.4          | -1.1%       | 1/20        |                                                        |                          |
| Finial hei.                  | 0.3    | 1          |              |            |             |                                                        |                          |

**Note:**  
* critical dimension  
** in relation to the lower column dia.

**Source:** Binder 1967, 48-88 pl. 5.  
Baldassarri 1998, 46 n. 3 fig. 3.
Chart #4. ATHENS: Roma and Augustus, temple

[Diagram showing proportions of various architectural dimensions relative to the critical dimension, which is explained as 'Hei. to roof'.]
#4 ATHENS:
Roma and Augustus, temple
Scale 1:100
Context: Agora, near the N end of the Stoa of Attalos; orientation unknown
Date: mid 2nd c. AD: destruction of the peristyle court (see text), stratigraphy (see Robinson 1959, 46-9, and 'Remains' below), and stylistic comparanda (see text)
Description: round monopteros (7.1 m. in dia., marble) on a 3-step krepis? (see Dinsmoor, jr. 1974, 422, and text) with 8 columns (Attic bases?, monolithic shafts, Corinthian or Composite? capitals, see text), an entablature (incl. a sima with lion-head water spouts), and a dome
Remains: part of the foundations (poros blocks with a concrete fill, see text), the columns (shafts of verde antico marble), the sima with lion-head water spouts (Pentelic marble), and the dome (brick-faced concrete); ceramic remains were found in the destruction fill (see 'Date' above), while nearby are a deposit of lead seals (see Shear 1936, 412, and text) and a water channel (see Dinsmoor, jr. 1974, 425-7)
Previous attributions: based on the large number of ancient burials in the area, Dinsmoor, jr. (1974, 413 and 427) tentatively identified the Rotunda as a heroon
Excavations: H. A. Thompson in 1936, with additional excavations in 1951-1954
### ATHENS: Rotunda

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>meters</th>
<th>roman feet</th>
<th>ideal</th>
<th>% difference</th>
<th>ideal proportional relationships</th>
<th>to critical</th>
<th>within columnar order **</th>
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<td>41.9</td>
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<td>0.3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Krepis dia. at base *</td>
<td>8.1</td>
<td>27.4</td>
<td>1</td>
<td></td>
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<td></td>
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<td>24.2</td>
<td>24</td>
<td>-0.8%</td>
<td>7/8</td>
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<td>2/5</td>
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<td>1/16</td>
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<td>8/11</td>
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<td>17.9</td>
<td>18.25</td>
<td>2.0%</td>
<td>2/3</td>
<td>7</td>
<td>4/5</td>
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<td>3</td>
<td>1/9</td>
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<td>1/10</td>
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<td>3.82</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Roof dia.</td>
<td>7.37</td>
<td>24.9</td>
<td>10/11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roof hei. (to finial)</td>
<td>3.2</td>
<td>10.8</td>
<td>11</td>
<td>1.9%</td>
<td>2/5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>20.3</td>
<td>232.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume (cubic measure)</td>
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<td>2870.7</td>
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</table>

**Note:**
* critical dimension
** in relation to the lower column dia.

**Source:** Dinsmoor, Jr. 1974, 412-27 figs. 2-4.
#5 ATHENS:
Rotunda
Scale 1:100
Context: Agora, adjacent to a kitchen (late Classical period), the Old Bouleuterion, the Metoon, and a major roadway

Date:
I. 470-460 BC: building materials and techniques, especially re. foundations and roofing
II. late 1st c. BC: porch, repairs to the door, marble paving

Patron:
I and II. Prytaneis?

Description:
I. drum (18.3 m. in dia., poros with mud brick walls) with 6 interior columns (in 2 arcs), 2 doors (facing E and N), and a tent-shaped roof (bronze and terracotta on an wooden substructure, see Thompson 1940, 89-91)
II. as I. but with a 4-column porch (4.4 m. long by 6.6 m. wide) and 4 windows

Remains:
I. fragments of the socle, thresholds, columns (poros), sima, acroteria, and triangular roof tiles (terracotta); refuse pits embedded in the floor
II. part of the porch and window frames (poros)

Literary and epigraphical sources:

Function and attribution:
Myst. 45 (roles of the Prytaneis). IG II 476 1.38, 56 and 64 (storehouse).
II. See Wachsmuth 1890, 319 n. 3 (dedication to the Phosphoroi).

Decorative scheme: Paus. 1.5.1 (silver statues).

Decoration: silver statues (see 'Literary and epigraphical sources: Decorative scheme' above); marble paving; sima and acroteria ornamented with alternating braid patterns and palmettes

Excavations: L. Shear in 1933-1938

Previous attributions: Robert (1939, 136-7) identifies it as a chthonic heroon, while Seiler (1986, 35; cf. Paus. 1.5.1) sees it as a temple to Apollo Prostaterios and Artemis Bouliaia


Text: 34-8.
<table>
<thead>
<tr>
<th><strong>ATHENS: Skias</strong></th>
<th>ideal proportional relationships to critical dimension *</th>
<th>within columnar order **</th>
</tr>
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<tr>
<td><strong>actual measurements</strong></td>
<td><strong>meters</strong></td>
<td><strong>dimension</strong></td>
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<td>Drum ext. *</td>
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<td>Drum int.</td>
<td>16.9</td>
<td>12/13</td>
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<tr>
<td>Total hei.</td>
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<td>9/16</td>
</tr>
<tr>
<td>Porch len.</td>
<td>4.4</td>
<td>4/17</td>
</tr>
<tr>
<td>Porch wid.</td>
<td>6.6</td>
<td>4/11</td>
</tr>
<tr>
<td>Cornice wid. (lower and upper)</td>
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</tr>
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<td>Cornice hei. (lower)</td>
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<tr>
<td>Cornice hei. (upper)</td>
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<td>3.17</td>
<td>3/17</td>
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<tr>
<td>Cella wall wid.</td>
<td>0.7</td>
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</tr>
<tr>
<td>Door dep.</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Door wid.</td>
<td>1.9</td>
<td>2/19</td>
</tr>
<tr>
<td>Door hei.</td>
<td>3.6</td>
<td>1/5</td>
</tr>
<tr>
<td>Door jamb</td>
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</tr>
<tr>
<td>Door lintel</td>
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<tr>
<td>Window jamb</td>
<td>0.2</td>
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<tr>
<td>Window lintel</td>
<td>0.25</td>
<td></td>
</tr>
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<td>Lower column dia. (int.) **</td>
<td>0.6</td>
<td>1</td>
</tr>
<tr>
<td>Intercolumnation</td>
<td>4.5</td>
<td>1/4</td>
</tr>
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<td>10.56</td>
<td>4/7</td>
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<td>Lower column dia. (porch) **</td>
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<tr>
<td>Intercolumnation</td>
<td>1</td>
<td>1 1/2</td>
</tr>
<tr>
<td>Interaxial</td>
<td>1.65</td>
<td>1/11</td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td>Acroteria wid.</td>
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<td>Acroteria hei.</td>
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<tr>
<td>Roof dia.</td>
<td>19</td>
<td>1 1/20</td>
</tr>
<tr>
<td>Roof hie.</td>
<td>4.2</td>
<td>3/13</td>
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<td>Floorspace (square measure)</td>
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</tr>
<tr>
<td>Volume (cubic measure)</td>
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</tr>
</tbody>
</table>

**Note:**  
*critical dimension*  
**in relation to the lower column dia.**

**Source:** Seiler 1986, 29-35 figs. 15-6.  
Thompson 1940, passim.
#6 ATHENS:
Skias
Scale 1:200
#7 BAALBEK: Tyche, Temple

**Context:** sited 130 m. to the S of the Sanctuary of Jupiter (complex completed in the mid-2nd c. AD); may have faced the Decumanus (NW?, see text)

**Date:** under Philip the Arab; coins (see ‘Iconographic sources’ below), building materials and techniques (see text), and architectural comparanda (specifically the Temple of Bacchus, ca. Antonine period, and the Propylon at Baalbek, see Wiegand 1925, 109)

**Description:** round (11.5 m. in dia., *opus quadratum*) with an 8-column porch (Attic bases, monolithic shafts, and Corinthian capitals, supporting coffers; fronted by an elaborate set of steps, see Wiegand 1925, 94-5) and a drum whose scalloped podium supports 4 columns (5-cornered Attic bases and Corinthian capitals, monolithic shafts), mirrored by Corinthian pilasters, 5 semi-domed aediculae framed by pilasters (Attic bases, Composite capitals), a garland frieze, a Corinthian entablature (a 3-fasciae architrave, a rounded frieze course, a modillion cornice, and a sima with lion-head water spouts), and a cupola (see text and Wiegand 1925, 105-6); inside the drum are 2 tiers of decoration incl. a socle, 14 half-columns, 5 niches, a cornice, and a Corinthian entablature (as above)

**Remains:** much of the foundations and podium (packed stone faced with ashlar blocks); porch: the columns (red granite shafts), and part of the pediment (white marble?); drum: most of the cella walls incl. the door frame, the exterior aediculae and interior niches, the socle, cornices, frieze, entablatures, and part of the cupola (*opus quadratum*); a round altar, a head of Helios (limestone), and a relief depicting an eagle in flight were found nearby

**Iconographic sources:** coins minted under Philip I (see Winnefeld 1913, 153 fig. 6)

**Decoration:** marble flooring of the porch and cella (see text); the altar and the eagle relief (see ‘Remains’ above, and Wiegand 1925, 99, who links the relief with the Temple’s door)

**Excavations:** German Baalbek-Expedition in 1898-1900 (see Wiegand 1925, 91-2)

**Previous attributions:** commonly considered a Temple of Venus (vs. Wiegand 1925, 90 and 99), Hülser (1895b, 27) identified it as a Temple of Magna Mater,


**Text:** 226-8.
<table>
<thead>
<tr>
<th></th>
<th>meters</th>
<th>roman feet</th>
<th>roman feet</th>
<th>difference</th>
<th>ideal to critical dimension *</th>
<th>within columnar order **</th>
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<tbody>
<tr>
<td><strong>Cella ext.</strong></td>
<td>11.5</td>
<td>38.9</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Cella int.</strong></td>
<td>8.92</td>
<td>30.1</td>
<td></td>
<td>1</td>
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</tr>
<tr>
<td><strong>Hei. to roof</strong></td>
<td>14.5</td>
<td>49</td>
<td></td>
<td>2/3</td>
<td>6/7</td>
<td></td>
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<tr>
<td><strong>Porch len.</strong></td>
<td>28.5</td>
<td>96.3</td>
<td></td>
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<tr>
<td><strong>Porch wid.</strong></td>
<td>17</td>
<td>57.4</td>
<td></td>
<td>1</td>
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</tr>
<tr>
<td><strong>Porch hei.</strong></td>
<td>3.75</td>
<td>12.67</td>
<td></td>
<td>2/9</td>
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<tr>
<td><strong>Foundation len.</strong></td>
<td>28.4</td>
<td>95.95</td>
<td></td>
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<tr>
<td><strong>Foundation wid.</strong></td>
<td>17</td>
<td>57.4</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Stair treads (bottom and top)</strong></td>
<td>0.38</td>
<td>1.28</td>
<td></td>
<td>1</td>
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<tr>
<td><strong>Stair treads (landing)</strong></td>
<td>1.9</td>
<td>6.4</td>
<td></td>
<td>1/9</td>
<td></td>
<td></td>
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<tr>
<td><strong>Stairway wid. (bottom)</strong></td>
<td>11.8</td>
<td>39.86</td>
<td></td>
<td>2/3</td>
<td></td>
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<tr>
<td><strong>Stairway wid. (top)</strong></td>
<td>10.1</td>
<td>34.1</td>
<td></td>
<td>3/5</td>
<td></td>
<td></td>
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<tr>
<td><strong>Podium dia. at base (cella)</strong></td>
<td>16.8</td>
<td>56.76</td>
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<td>1</td>
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</tr>
<tr>
<td><strong>Podium dia. at base (porch len.)</strong></td>
<td>28.5</td>
<td>96.3</td>
<td></td>
<td>2/3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Podium dia. at base (porch wid.)</strong></td>
<td>17</td>
<td>57.4</td>
<td></td>
<td>1</td>
<td></td>
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</tr>
<tr>
<td><strong>Podium dia. at stylobate (cella)</strong></td>
<td>16.8</td>
<td>56.76</td>
<td></td>
<td>1</td>
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<tr>
<td><strong>Podium hei.</strong></td>
<td>2.91</td>
<td>9.83</td>
<td></td>
<td>1/6</td>
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<tr>
<td><strong>Podium cornice hei. (lower)</strong></td>
<td>0.38</td>
<td>1.3</td>
<td></td>
<td>1/10</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Podium cornice hei. (upper)</strong></td>
<td>0.5</td>
<td>1.7</td>
<td></td>
<td>1/18</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ambulatory (ext.)</strong></td>
<td>1.1</td>
<td>3.7</td>
<td>3.8</td>
<td>3.5%</td>
<td>1/15</td>
<td></td>
</tr>
<tr>
<td><strong>Cella wall wid.</strong></td>
<td>1.2</td>
<td>4.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cornice wid. (lower)</strong></td>
<td>0.3</td>
<td>0.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cornice wid. (upper)</strong></td>
<td>0.2</td>
<td>0.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cornice hei. (lower)</strong></td>
<td>0.6</td>
<td>1.95</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Cornice hei. (upper)</strong></td>
<td>0.2</td>
<td>0.7</td>
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<tr>
<td><strong>Socle hei. (int.)</strong></td>
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<td>0.88</td>
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<tr>
<td><strong>Exedrae dep.</strong></td>
<td>1.1</td>
<td>3.7</td>
<td>3.8</td>
<td>3.5%</td>
<td>1/15</td>
<td></td>
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<tr>
<td><strong>Exedrae wid.</strong></td>
<td>1.7</td>
<td>5.7</td>
<td></td>
<td></td>
<td>1/10</td>
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</tr>
<tr>
<td><strong>Exedrae hei.</strong></td>
<td>4.2</td>
<td>14.2</td>
<td></td>
<td>1/4</td>
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<tr>
<td><strong>Door dep.</strong></td>
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<td>3.2</td>
<td></td>
<td></td>
<td>1/18</td>
<td></td>
</tr>
<tr>
<td><strong>Door wid.</strong></td>
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<td>13.2</td>
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<tr>
<td><strong>Door hei.</strong></td>
<td>7.09</td>
<td>24.0</td>
<td></td>
<td>5/12</td>
<td></td>
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</tr>
<tr>
<td><strong>Total hei. (cella peristasis)</strong></td>
<td>8.58</td>
<td>29</td>
<td></td>
<td>1/2</td>
<td>101/5</td>
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<tr>
<td><strong>Base wid. (5 sided)</strong></td>
<td>1.4</td>
<td>4.7</td>
<td></td>
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<td>12/3</td>
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<td>3.4</td>
<td></td>
<td></td>
<td>11/5</td>
<td></td>
</tr>
<tr>
<td><strong>Lower column dia.</strong> **</td>
<td>0.84</td>
<td>2.84</td>
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<td></td>
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</tr>
<tr>
<td><strong>Shaft hei.</strong></td>
<td>6.53</td>
<td>22.1</td>
<td></td>
<td>2/5</td>
<td>7/9</td>
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</tr>
<tr>
<td><strong>Capital dia.</strong></td>
<td>1.5</td>
<td>5.1</td>
<td>5.25</td>
<td>2.9%</td>
<td>1/11</td>
<td>1/6/7</td>
</tr>
<tr>
<td><strong>Capital hei.</strong></td>
<td>1.05</td>
<td>3.5</td>
<td></td>
<td></td>
<td>11/4</td>
<td></td>
</tr>
<tr>
<td><strong>Intercolumnnination</strong></td>
<td>4</td>
<td>13.5</td>
<td></td>
<td></td>
<td>43/4</td>
<td></td>
</tr>
<tr>
<td><strong>Interaxial</strong></td>
<td>5.75</td>
<td>19.4</td>
<td></td>
<td>1/3</td>
<td>65/6</td>
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<tr>
<td><strong>Interaxial dia.</strong></td>
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<td>47.3</td>
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<td>5/6</td>
<td>162/3</td>
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</tr>
<tr>
<td><strong>Total hei. (porch columns)</strong></td>
<td>8.58</td>
<td>29</td>
<td></td>
<td>1/2</td>
<td>101/5</td>
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<tr>
<td><strong>Base dia.</strong></td>
<td>1.4</td>
<td>4.7</td>
<td>4.75</td>
<td>1.1%</td>
<td>1/12</td>
<td>12/3</td>
</tr>
<tr>
<td><strong>Base hei. (plinth)</strong></td>
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<td>3</td>
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<td></td>
<td></td>
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<tr>
<td><strong>Lower column dia.</strong> **</td>
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<td>2.84</td>
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<td>22.4</td>
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<td>2/5</td>
<td>78/9</td>
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<td><strong>Capital dia.</strong></td>
<td>1.5</td>
<td>5.1</td>
<td>5.25</td>
<td>2.9%</td>
<td>1/11</td>
<td>1/6/7</td>
</tr>
<tr>
<td><strong>Capital hei.</strong></td>
<td>1.05</td>
<td>3.5</td>
<td></td>
<td></td>
<td>11/4</td>
<td></td>
</tr>
<tr>
<td><strong>Intercolumnnination (porch front)</strong></td>
<td>6</td>
<td>20.3</td>
<td></td>
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<td>71/7</td>
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</tr>
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<td><strong>Intercolumnnination (porch side)</strong></td>
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<td>6.75</td>
<td></td>
<td></td>
<td>23/8</td>
<td></td>
</tr>
<tr>
<td><strong>Interaxial (porch front)</strong></td>
<td>7.4</td>
<td>25</td>
<td></td>
<td>3/7</td>
<td>84/5</td>
<td></td>
</tr>
<tr>
<td><strong>Interaxial (porch side)</strong></td>
<td>3.3</td>
<td>11.15</td>
<td></td>
<td>1/5</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
BAALBEK: Tyche, temple (cont.d)

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>meters</th>
<th>roman feet</th>
<th>ideal roman feet</th>
<th>% difference</th>
<th>ideal proportional relationships to critical dimension *</th>
<th>within columnar order **</th>
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</thead>
<tbody>
<tr>
<td>Total hei. (cella pilasters)</td>
<td>8.58</td>
<td>29</td>
<td>9</td>
<td>1/2</td>
<td>9 2/3</td>
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<tr>
<td>Plinth and base hei.</td>
<td>1.1</td>
<td>3.7</td>
<td>3.8</td>
<td>2.7%</td>
<td>1/15</td>
<td>1 1/10</td>
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<tr>
<td>Shaft dep. (lcd)</td>
<td>0.1</td>
<td>0.3</td>
<td>0.03</td>
<td>0.1</td>
<td>1/30</td>
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<tr>
<td>Shaft dep. (ucd)</td>
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<td>3</td>
<td>0.89</td>
<td>3</td>
<td>1</td>
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</tr>
<tr>
<td>Lower column wid. **</td>
<td>0.84</td>
<td>2.84</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper column wid.</td>
<td>6.53</td>
<td>22.1</td>
<td>7 3/8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>0.95</td>
<td>3.2</td>
<td>1/18</td>
<td>1</td>
<td>1/15</td>
<td></td>
</tr>
<tr>
<td>Capital hei.</td>
<td>4</td>
<td>13.5</td>
<td>4 1/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercolumnation</td>
<td>1.05</td>
<td>3.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaxial</td>
<td>8.7</td>
<td>29.4</td>
<td>2/7</td>
<td>5 5/8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total hei (cella columns)</td>
<td>2.92</td>
<td>9.9</td>
<td>9.75</td>
<td>-1.5%</td>
<td>1/6</td>
<td>9 3/4</td>
</tr>
<tr>
<td>Base dia</td>
<td>0.53</td>
<td>1.8</td>
<td>1</td>
<td>4/5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.2</td>
<td>0.68</td>
<td>2/3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.31</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>2.3</td>
<td>7.8</td>
<td>7 4/5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital dia.</td>
<td>0.42</td>
<td>1.42</td>
<td>1 3/7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.42</td>
<td>1.42</td>
<td>1 3/7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercolumnation</td>
<td>0.5</td>
<td>1.7</td>
<td>1/34</td>
<td>1 7/10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaxial</td>
<td>1.05</td>
<td>3.5</td>
<td>3 1/2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercolumnation dia.</td>
<td>8.7</td>
<td>29.4</td>
<td>1/2</td>
<td>29 2/5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intertablature hei. (ext)</td>
<td>2.12</td>
<td>7.17</td>
<td>1/8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.76</td>
<td>2.57</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dentil hei.</td>
<td>0.2</td>
<td>0.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>1.2</td>
<td>4.1</td>
<td>1/14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.86</td>
<td>2.9</td>
<td>2.9</td>
<td>-1.0%</td>
<td>1/20</td>
<td></td>
</tr>
<tr>
<td>Intertablature hei. (int)</td>
<td>2</td>
<td>6.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.5</td>
<td>1.7</td>
<td>1/34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.6</td>
<td>2.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dentil hei.</td>
<td>0.1</td>
<td>0.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.8</td>
<td>2.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

reconstructed measurements

<table>
<thead>
<tr>
<th></th>
<th>meters</th>
<th>roman feet</th>
<th>19.25</th>
<th>65.0</th>
<th>1 1/8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hei. to finial</td>
<td>17.5</td>
<td>59.1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Roof dia.</td>
<td>9.6</td>
<td>32.4</td>
<td></td>
<td></td>
<td>4/7</td>
</tr>
<tr>
<td>Roof hei.</td>
<td>3.1</td>
<td>10.5</td>
<td></td>
<td></td>
<td>1/5</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>62.5</td>
<td>711.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * critical dimension
** in relation to the lower column dia.

#8 BATH: Sulis-Minerva, Shrine

**Context:** Sanctuary of Sulis-Minerva, set within a rectilinear precinct (31 by ? m., see Cunliffe 1995, 85 fig. 73); aligned with the Temple of Sulis-Minerva (W, mid-late 1st c. AD, see Cunliffe 1995, 87)

**Date:** Hadrianic period (122 AD?, see text): stylistic analysis of the entablature (see Cunliffe 1995, 85 and text)

**Description:** round monopteros (9.1 m. in dia., stone) with 12 columns (Attic bases, monolithic shafts, Corinthian capitals), an entablature (see text), and a conical roof

**Remains:** 4 blocks of the entablature and fragments of the columns (stone; for the columns, see Cunliffe 1995, 84)

**Literary and epigraphical sources:**
- Excavations: R. Mann in 1897 and B. Cunliffe in 1991; entablature found during the excavation of the baths in 1878-1882

**Previous attributions:** Cunliffe (1995, 85) suggests that the precinct walls formed part either of a forum and basilica complex or of a theater


**Text:** 179-80.
### BATH: Sulis-Minerva, shrine

<table>
<thead>
<tr>
<th>Actual Measurements</th>
<th>Meters</th>
<th>Roman Feet</th>
<th>Roman Feet</th>
<th>Difference</th>
<th>%</th>
<th>Critical Dimension</th>
<th>Order **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monopteros ext.*</td>
<td>9.1</td>
<td>30.74</td>
<td>1</td>
<td>1/12</td>
<td>1</td>
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</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.74</td>
<td>2.5</td>
<td>2.6</td>
<td>2.5%</td>
<td>1/15</td>
<td>4/5</td>
<td></td>
</tr>
<tr>
<td>Upper column dia.</td>
<td>0.6</td>
<td>2.03</td>
<td></td>
<td></td>
<td>2/3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>6</td>
<td>20.3</td>
<td>2</td>
<td>8</td>
<td>1/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaxial</td>
<td>2.25</td>
<td>7.6</td>
<td></td>
<td></td>
<td>1/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.46</td>
<td>1.55</td>
<td>1.5</td>
<td>-0.8%</td>
<td>1/20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flooring space (square measure)</td>
<td>40.7</td>
<td>465.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Reconstructed Measurements

<table>
<thead>
<tr>
<th>Reconstructed Measurements</th>
<th>Meters</th>
<th>Roman Feet</th>
<th>Roman Feet</th>
<th>Difference</th>
<th>%</th>
<th>Critical Dimension</th>
<th>Order **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hei. (columns)</td>
<td>7.2</td>
<td>24.32</td>
<td></td>
<td>4/5</td>
<td>9 1/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base dia.</td>
<td>0.95</td>
<td>3.2</td>
<td></td>
<td></td>
<td>1 1/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.3</td>
<td>1</td>
<td></td>
<td></td>
<td>2/5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital dia.</td>
<td>1.1</td>
<td>3.7</td>
<td>3.75</td>
<td>1.4%</td>
<td>1/8</td>
<td></td>
<td>1 1/2</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.9</td>
<td>3</td>
<td>3</td>
<td></td>
<td>1/10</td>
<td></td>
<td>1 1/5</td>
</tr>
<tr>
<td>Intercolumnation</td>
<td>1.3</td>
<td>4.4</td>
<td></td>
<td></td>
<td>1/7</td>
<td></td>
<td>1 5/7</td>
</tr>
<tr>
<td>Roof dia.</td>
<td>10</td>
<td>33.8</td>
<td></td>
<td></td>
<td>1/10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
- * Critical dimension
- ** In relation to the lower column dia.

**Source:** Cunliffe 1995, 85-8 figs. 71-3.
Chart #8. BATH: Sulis-Minerva, shrine

- Roof dia.
- Intercolumnation
- Capital hei.
- Capital dia.
- Total hei. (columns)
- Frieze hei.
- Interaxial
- Shaft hei.
- Upper column dia.
- Lower column dia. **
- Monopteros ext. *

Critical dimension = Monopteros ext.
#8 BATH:
Sulis-Minerva, shrine
Scale 1:100
#9 CORINTH: Rotunda

Context: W terrace, Lower Agora; from the S, the W Terrace consists of the Temple of Tyche (Tiberian period), the Pantheon (early 1st c. AD-Claudian period), a ramp (Greek period) leading to the W shops and Temple E, the Temples of Herakles? (191 AD) and of Poseidon? (185 AD), and the Rotunda, behind which is Temple K (ca. 50-150 AD), while to the N are a statue, the Temple of Hermes? (early-late 1st c. AD), and a fountain (erected by Cn. Babbius Philippus?, see text and Scranton 1951, 64-7); oriented toward the Lower Agora (E).

Date: Tiberian period; dedicatory inscription (see ‘Literary and epigraphical sources: Inscriptions from Remains’ below)

Patron: Cn. Babbius Philippus

Description: round monopteros (10.8 m. in dia., marble) on a square socle (10.8 m. per side) accessed by side stairs with 8 columns (Attic bases, monolithic shafts, Corinthian capitals), a Corinthian entablature, and a cone-shaped roof topped by a pineapple? (see Weber 1990, 228 cat. M35)

Remains: the core and some revetment of the platform (concrete and stone fragments revetted in poros and blue marble), fragments of the stairs (poros), the stylobate (blue marble), the columns, the inscribed entablature, the roof, the finial (white marble), and statues associated with the W terrace incl. Athena, Artemis, Apollo, Antoninus Pius, a group of Apollo and the Muses, and several figures in the “Pergamene style” (see Scranton 1951, 70-1); also extant are the foundations and some revetment from both of Babbius’ fountains

Literary and epigraphical sources:

Inscriptions from ‘Remains’: [CN. BABBIUS PHILINVS] AED PONTIF / [D S P F C IDEMQVE] II VIR P (Rotunda’s dedicatory inscription, architrave; for the restoration of Babbius’ name in connection with the Rotunda, see Scranton 1951, 22). CN. BABBIUS PHILINVS NEPTVNI SACRO (dedicatory inscription of the Fountain of Poseidon, see Scranton 1951, 16, 34 and 66).

Location and decoration: Paus. 2.2.6-8 and 3.6 (layout of the W terrace, statues of Apollo Karios and Aphrodite by Hermogenes of Kythera, 2 statues of Hermes, and 3 of Zeus).

Decoration: cult image of Aphrodite or Victoria? and statues in the “Pergamene style” (see text and ‘Literary and epigraphical sources: Location and decoration’ above); mosaic floor? (see Scranton 1951, 24); bronze sheathing for the finial? (see Scranton 1951, 30)

Excavations: J. de Waele in the 1920s and R. Scranton in the 1950s


### CORINTH: Rotunda

<table>
<thead>
<tr>
<th>Actual Measurements</th>
<th>Actual Measurements</th>
<th>Ideal Measurements</th>
<th>Ideal Proportional Relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>meters</td>
<td>roman feet</td>
<td>%</td>
</tr>
<tr>
<td>Monopteros ext. *</td>
<td>4.8</td>
<td>16.2</td>
<td>1</td>
</tr>
<tr>
<td>Total hei. (monopteros)</td>
<td>8</td>
<td>27</td>
<td>1 2/3</td>
</tr>
<tr>
<td>Total hei. (monopteros and socle)</td>
<td>10.6</td>
<td>35.8</td>
<td>2 1/5</td>
</tr>
<tr>
<td>Socle wid.</td>
<td>10.8</td>
<td>36.5</td>
<td>2 1/4</td>
</tr>
<tr>
<td>Socle hei.</td>
<td>2.7</td>
<td>9.1</td>
<td>9.0</td>
</tr>
<tr>
<td>Socle cornice wid. (lower)</td>
<td>0.15</td>
<td>0.51</td>
<td>0.51</td>
</tr>
<tr>
<td>Socle cornice wid. (upper)</td>
<td>0.15</td>
<td>0.51</td>
<td>0.51</td>
</tr>
<tr>
<td>Socle cornice hei. (lower)</td>
<td>0.5</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>Socle cornice hei. (upper)</td>
<td>0.25</td>
<td>0.84</td>
<td>0.84</td>
</tr>
<tr>
<td>Stylobate dia.</td>
<td>4.93</td>
<td>16.65</td>
<td>1/36</td>
</tr>
<tr>
<td>Stylobate hei.</td>
<td>0.3</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>Total hei. (columns)</td>
<td>5.22</td>
<td>17.64</td>
<td>17.8</td>
</tr>
<tr>
<td>Base dia.</td>
<td>0.76</td>
<td>2.57</td>
<td></td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.2</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.55</td>
<td>1.86</td>
<td></td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>4.3</td>
<td>14.5</td>
<td>8/9</td>
</tr>
<tr>
<td>Capital dia.</td>
<td>1</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.68</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>Intercolumnation</td>
<td>0.82</td>
<td>2.77</td>
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</tr>
<tr>
<td>Interaxial</td>
<td>1.58</td>
<td>5.34</td>
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</tr>
<tr>
<td>Interaxial dia.</td>
<td>4.1</td>
<td>13.9</td>
<td></td>
</tr>
<tr>
<td>Entablature hei.</td>
<td>0.99</td>
<td>3.34</td>
<td></td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.34</td>
<td>1.15</td>
<td></td>
</tr>
<tr>
<td>Dentil hei.</td>
<td>0.1</td>
<td>0.34</td>
<td></td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>0.23</td>
<td>0.78</td>
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</tr>
<tr>
<td>Cornice hei.</td>
<td>0.25</td>
<td>0.84</td>
<td></td>
</tr>
<tr>
<td>Roof dia.</td>
<td>5.15</td>
<td>17.4</td>
<td>17.5</td>
</tr>
<tr>
<td>Roof hei.</td>
<td>1</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>Finial wid.</td>
<td>0.39</td>
<td>1.32</td>
<td>1.4</td>
</tr>
<tr>
<td>Finial hei.</td>
<td>0.45</td>
<td>1.52</td>
<td></td>
</tr>
<tr>
<td>Floor space (square measure)</td>
<td>8.6</td>
<td>96.8</td>
<td></td>
</tr>
<tr>
<td>Volume (cubic measure)</td>
<td>10.7</td>
<td>179.1</td>
<td></td>
</tr>
</tbody>
</table>

Note:  
* critical dimension  
** in relation to the lower column dia.

Source: Scranton 1951, 17-34, pls. 11-2 and plans B-D.  
Binder 1967, 106-7 fig. 115.
#9 CORINTH:
Rotunda
Scale 1:100
Context: Agora of the Compétaliastes or the Italians (60 m. long by 32 m. wide), near the commercial port (the Agora is bordered by the houses of the Theater Quarter, the Portico of Philip, and the W portico, see Bruneau and Ducat 1983, 117); enclosed in a precinct together with 2 rectilinear shrines, statues and altars

Date: late 2nd c. BC: dedicatory inscription (see ‘Literary and epigraphical sources: Inscriptions from Remains’ below), and building materials and techniques (see text)

Patrons: members of the Hermaist fraternity

Description: round monopteros (2.975 m. in dia., Naxian marble) with a 2-step krepis, 4 Doric columns, an Ionic entablature, and a conical roof

Remains: part of the foundations (gneiss), the krepis, the entablature (inscribed architrave, cornice), a capital?, and the roof (Naxian marble); an inscribed commemorative plaque was found nearby

Literary and epigraphical sources:

Inscriptions from ‘Remains’: ID 1738 = CIL III 14203 (dedicate inscription, architrave; cf. Durbach 1921-1922, 114-6 no. 86). For the commemorative plaque, see Hatzfeld 1912, 103.


Decoration: accompanying statue bases

Excavations: E. Ardaillon in the 1890s


Text: 60-1.
### DELOS: Hermes and Maia, shrine

#### actual measurements

<table>
<thead>
<tr>
<th></th>
<th>meters</th>
<th>roman feet</th>
<th>ideal meters</th>
<th>ideal roman feet</th>
<th>% difference</th>
<th>critical dimension</th>
<th>within columnar order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monopteros ext. *</td>
<td>2.37</td>
<td>8</td>
<td>2.37</td>
<td>8</td>
<td>-1.5%</td>
<td>1/12</td>
<td></td>
</tr>
<tr>
<td>Stair treads</td>
<td>0.2</td>
<td>0.68</td>
<td>0.67</td>
<td>-1.5%</td>
<td>1/12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stair risers</td>
<td>0.2</td>
<td>0.68</td>
<td>0.67</td>
<td>-1.5%</td>
<td>1/12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Krepis dia. at base</td>
<td>2.975</td>
<td>10.05</td>
<td></td>
<td></td>
<td>1 1/4</td>
<td></td>
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<tr>
<td>Krepis hei.</td>
<td>0.43</td>
<td>1.45</td>
<td></td>
<td></td>
<td>2/11</td>
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<tr>
<td>Euthynteria wid.</td>
<td>2.519</td>
<td>8.51</td>
<td>8.5</td>
<td>-0.1%</td>
<td>1 1/16</td>
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</tr>
<tr>
<td>Euthynteria hei.</td>
<td>0.2</td>
<td>0.68</td>
<td>0.67</td>
<td>-1.5%</td>
<td>1/12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base dia. (columns)</td>
<td>0.25</td>
<td>0.84</td>
<td></td>
<td></td>
<td>1 1/4</td>
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</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.2</td>
<td>0.68</td>
<td>0.67</td>
<td>-1.5%</td>
<td>1/12</td>
<td></td>
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</tr>
<tr>
<td>Capital hei.</td>
<td>0.35</td>
<td>1.18</td>
<td></td>
<td></td>
<td>1 3/4</td>
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<td></td>
</tr>
<tr>
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<td>1.49</td>
<td>5.04</td>
<td></td>
<td></td>
<td>5/8</td>
<td></td>
<td>7 1/2</td>
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<td>1.74</td>
<td>5.88</td>
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<td></td>
<td>3/4</td>
<td></td>
<td>8 7/9</td>
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<tr>
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<td>2.12</td>
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<td></td>
<td>8/9</td>
<td></td>
<td>10 2/3</td>
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<td>1/5</td>
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<tr>
<td>Architrave hei.</td>
<td>0.2</td>
<td>0.68</td>
<td>0.67</td>
<td>-1.5%</td>
<td>1/12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prieze hei.</td>
<td>0.15</td>
<td>0.5</td>
<td></td>
<td></td>
<td>1/16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>0.2</td>
<td>0.68</td>
<td>0.67</td>
<td>-1.5%</td>
<td>1/12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.13</td>
<td>0.44</td>
<td>0.44</td>
<td>1.0%</td>
<td>1/18</td>
<td></td>
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</tr>
<tr>
<td>Roof dia.</td>
<td>2.715</td>
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<td>1 1/7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roof hei.</td>
<td>0.93</td>
<td>3.14</td>
<td></td>
<td></td>
<td>2/5</td>
<td></td>
<td></td>
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<tr>
<td>Floorspace (square measure)</td>
<td>4.4</td>
<td>50.3</td>
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<tr>
<td>Volume (cubic measure)</td>
<td>6.1</td>
<td>115.1</td>
<td></td>
<td></td>
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<td></td>
</tr>
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</table>

**Note:**  
* critical dimension  
** in relation to the lower column dia.

**Source:** Ardaillon 1896, 435.  
Salviat 1963, 259-60 fig. 3.
#10 DELOS:
Hermes and Maia, shrine
Scale 1:50
#11 DELPHI: Tholos, 580 BC

Context: Sanctuary of Apollo; incorporated into the Treasury of the Sikynos (after 548 BC), together with a monopteros (560 BC)
Date: 580 BC: construction of the treasury (terminus ante quem) and its possible connection to Cleisthenes
Patron: Cleisthenes? (see Seiler 1986, 53-4)
Description: peripteros (6.95 m. in dia., poros) with a 3-step krepis, 13 Doric columns, a Doric entablature (20 metopes), and a tent-shaped roof
Remains: fragments of the krepis, euthynteria, columns, and architrave (poros)
Excavations: H. Pomtow in ca. 1900
Previous attributions: music pavilion, a temple to Hestia or Gaia, or a treasury (see Seiler 1986, 54-5)

Text: 34-8.
**DELPHI: Tholos, 580 BC**

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>ideal proportional relationships to critical dimension *</th>
<th>within columnar order **</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cella ext.</strong></td>
<td>4.15</td>
<td>3/5</td>
</tr>
<tr>
<td><strong>Cella int.</strong></td>
<td>3.4</td>
<td>1/2</td>
</tr>
<tr>
<td><strong>Stair treads</strong></td>
<td>0.25</td>
<td>1/28</td>
</tr>
<tr>
<td><strong>Stair risers</strong></td>
<td>0.29</td>
<td>1/24</td>
</tr>
<tr>
<td><strong>Krepis dia. at base</strong></td>
<td>6.95</td>
<td>1</td>
</tr>
<tr>
<td><strong>Krepis dia. at euthynteria</strong></td>
<td>5.45</td>
<td>7/9</td>
</tr>
<tr>
<td><strong>Krepis hei.</strong></td>
<td>0.87</td>
<td>1/8</td>
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<tr>
<td><strong>Euthynteria wid.</strong></td>
<td>1.075</td>
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<tr>
<td><strong>Euthynteria hei.</strong></td>
<td>0.29</td>
<td>1/24</td>
</tr>
<tr>
<td><strong>Ambulatory (ext.)</strong></td>
<td>0.53</td>
<td>1/13</td>
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<tr>
<td><strong>Cella wall wid.</strong></td>
<td>0.38</td>
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</tr>
<tr>
<td><strong>Door wid.</strong></td>
<td>1</td>
<td>1/7</td>
</tr>
<tr>
<td><strong>Total hei. (columns)</strong></td>
<td>2.77</td>
<td>2/5</td>
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<tr>
<td><strong>Lower column dia.</strong></td>
<td>0.46</td>
<td>1/15</td>
</tr>
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<td>9/25</td>
</tr>
<tr>
<td><strong>Capital dia.</strong></td>
<td>0.65</td>
<td>1 2/5</td>
</tr>
<tr>
<td><strong>Capital hei.</strong></td>
<td>0.28</td>
<td>1/25</td>
</tr>
<tr>
<td><strong>Intercolumnnation</strong></td>
<td>0.95</td>
<td>3/5</td>
</tr>
<tr>
<td><strong>Interaxial</strong></td>
<td>1.4</td>
<td>1/5</td>
</tr>
<tr>
<td><strong>Interaxial dia.</strong></td>
<td>5.8</td>
<td>5/6</td>
</tr>
<tr>
<td><strong>Architrave hei. (ext.)</strong></td>
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<td>12 3/5</td>
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<tr>
<td><strong>Floorspace (square measure)</strong></td>
<td>9.1</td>
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**reconstructed measurements**

<table>
<thead>
<tr>
<th></th>
<th>1.45</th>
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<tr>
<td><strong>Entablature hei. (ext.)</strong></td>
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</tr>
<tr>
<td><strong>Frieze hei.</strong></td>
<td>0.65</td>
</tr>
<tr>
<td><strong>Cornice wid.</strong></td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Cornice hei.</strong></td>
<td>0.25</td>
</tr>
<tr>
<td><strong>Roof dia.</strong></td>
<td>7</td>
</tr>
<tr>
<td><strong>Roof hei.</strong></td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Volume (cubic measure)</strong></td>
<td>12.7</td>
</tr>
</tbody>
</table>

**Note:**
* critical dimension
** in relation to the lower column dia.

**Source:** Seiler 1986, 40-55, figs. 19-23 and 25, and table 1.
#11 DELPHI:
Tholos, 580 BC
Scale 1:100
#12 DELPHI: Tholos, late 5th c.-370 BC

**Context:** Sanctuary of Athena Pronaia, Marmaria; sited on a plateau with rectangular temples and treasuries

**Date:** late 5th c.-370 BC: building materials and techniques, especially re. metopes

**Architect:** Theodoros Phokaleus

**Patron:** Athens

**Description:** peripteros (14.66 m. in dia., marble) with a 3-step krepis, a socle (interior), 20 Doric (exterior) and 10 Corinthian (interior) columns, a Doric entablature (exterior, 40 metopes), and an octagonal roof

**Remains:** part of the foundations (tufa), euthynteria (Eleian limestone), krepis, cella wall (Pentelic marble and limestone?), floor (black and white marble), interior socle (Eleusinian limestone), door frame, exterior and interior columns, metopes, roof cornice, acroteria, roof tiles, and finial (Pentelic marble, except for the colored marble interior capitals)

**Literary and epigraphical sources:**

- **Marmaria:** Paus. 10.8.6 fol. (NB: Pausanias does not mention the Tholos).
- **Decoration:** marble floor with black and white radiating lozenges; metopes depicting amazonomachies and centauromachies; statuc finial
- **Excavations:** T. Homolle in ca. 1900 (discovered in 1838)

**Previous attributions:** identified as an Odeion (Thiersch), a Prytanion (Pomtow), the Heroon of Phylakos (Price 1973, 68 n. 19; cf. Paus. 10.8.6 fol.), a Temple of Artemis (Bousquet, see Bommelaer 1991, 67), a Temple of Ge (de la Coste-Messelière, see Bommelaer 1991, 67), a hoptoteria for Athena's sacred panoply (Lerat), an offering to Boreus (Laroche 1990, 54), and a treasury set up by the Thurioi in thanks for the dispersion of the Syracusan fleet, ca. 379 BC (Laroche 1990, 54)


**Text:** 34-8.
## DELPHI: Tholos, late 5th c.-370 BC

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>meters</th>
<th>ideal proportional relationships</th>
<th>to critical dimension*</th>
<th>within columnar order**</th>
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<td>Cella ext.</td>
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<td>5/9</td>
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<td>Cella int.</td>
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<td>2/3</td>
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<tr>
<td>Stair treads</td>
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<tr>
<td>Stair risers</td>
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<td>Kreips dia. at base *</td>
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</tr>
<tr>
<td>Kreips dia. at euthynteria</td>
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<td></td>
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<td>Kreips hei.</td>
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<td>1/19</td>
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<td>2/9</td>
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<td>1/9</td>
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<td>Door dep.</td>
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<tr>
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<td>4/25</td>
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<tr>
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<tr>
<td>Door lintel</td>
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<tr>
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<td>2/5</td>
<td>7 3/5</td>
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<tr>
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<td>1 1/6</td>
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</tr>
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<td>0.22</td>
<td></td>
<td>2/7</td>
<td></td>
</tr>
<tr>
<td>Intercolunnation</td>
<td>1.22</td>
<td>1/12</td>
<td>1 5/8</td>
<td></td>
</tr>
<tr>
<td>Interaxial</td>
<td>1.97</td>
<td></td>
<td>2 5/8</td>
<td></td>
</tr>
<tr>
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<td>12.5</td>
<td>6/7</td>
<td>16 2/3</td>
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<td></td>
<td>14 1/8</td>
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</tr>
<tr>
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<td>2/45</td>
<td>1 5/8</td>
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<td>3/8</td>
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</tr>
<tr>
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<td>1</td>
<td></td>
</tr>
<tr>
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<td>4.9</td>
<td>1/3</td>
<td>12 1/4</td>
<td></td>
</tr>
<tr>
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<td>2/45</td>
<td>1 5/8</td>
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</tr>
<tr>
<td>Capital hei.</td>
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<td></td>
<td>1 1/2</td>
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</tr>
<tr>
<td>Intercolunnation</td>
<td>1.05</td>
<td>1/14</td>
<td>2 5/8</td>
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</tr>
<tr>
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<td></td>
<td>4 1/4</td>
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</tr>
<tr>
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<td>6.3</td>
<td>3/7</td>
<td>15 3/4</td>
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<tr>
<td>Entablature hei. (ext.)</td>
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<tr>
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<td>1/25</td>
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<td>2/45</td>
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<tr>
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<td>1/21</td>
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<tr>
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<tr>
<td>Roof hei.</td>
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<td>1/9</td>
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<td>Finial wid.</td>
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<td>Finial hei.</td>
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<td>1/8</td>
<td></td>
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</tr>
<tr>
<td>Volume (cubic measure)</td>
<td>46.0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note:  
* critical dimension  
** in relation to the lower column dia.

Source: Seiler 1986, 56-71 figs. 27-8 and 30.
#12 DELPHI:
Tholos, late 5th c.-370 BC
Scale 1:200
#13 EPIDAUROS: Tholos

Context: Sanctuary of Asklepios, beside the Abaton and the Temple of Asklepios (380s BC, N); oriented E

Date: 370-353 BC: building materials and techniques

Architect: Polykleitos

Patron: priesthood of Asklepios?

Description: peripteros (21.8 m. in dia., poros and Pentelic marble) with 6 foundation rings, an access ramp, a 3-step kreips, 26 Doric (exterior) and 14 Corinthian (interior) columns, a Doric (exterior) and Ionic (interior) entablature, and a conical roof

Remains: part of the foundations (poros), kreips (poros and Pentelic marble), floor (black and white marble), euthyncteria, interior socle, door frame (Pentelic marble), cella wall (poros and Pentelic marble), exterior and interior columns (exterior of poros, interior of black Argive limestone), exterior and interior entablature (exterior of Pentelic marble, interior of black Argive limestone), the sima with water spouts, antefixes, roof tiles, and the finial (Pentelic marble)

Literary and epigraphical sources:

Function and attribution: Paus. 2.27.3 (tholos). IG IV F 103 Z. 1. 125.162 (thumele). Paus. 2.26.3-8 (possible heroon of Asklepios).

Decorative program: Paus. 2.27.3 (wall paintings).

Decoration: wall paintings (see ‘Literary and epigraphical sources: Decorative program’ above); black and white marble floor in radiating lozenge pattern; metopes with raised phiales (exterior); sima with lion-head water spouts; palmette antefixes; finial

Excavations: P. Kavvadias and W. Dörpfeld in 1882-1883 (discovered in 1669)

Previous attributions: identified as the snake pit, the tomb or the heroon of Asklepios (see Roux 1984, 169; cf. Paus. 2.26.3-8)


Text: 34-8.
### EPIDAURUS: Tholos

<table>
<thead>
<tr>
<th>Actual Measurements</th>
<th>Meters</th>
<th>Critical Dimension *</th>
<th>Within Columnar Order **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cella ext.</td>
<td>15.15</td>
<td></td>
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<tr>
<td>Cella int.</td>
<td>13.2</td>
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<td></td>
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<tr>
<td>Hei. to finial</td>
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<td>3/5</td>
<td></td>
</tr>
<tr>
<td>Foundation dep.</td>
<td>3.2</td>
<td>1/7</td>
<td></td>
</tr>
<tr>
<td>Foundation dia.</td>
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<td></td>
</tr>
<tr>
<td>Stair treads</td>
<td>0.34</td>
<td>1/64</td>
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<td>Stair risers</td>
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<td></td>
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<tr>
<td>Ramp len.</td>
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<td>2/7</td>
<td></td>
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<tr>
<td>Ramp wid.</td>
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<td></td>
</tr>
<tr>
<td>Krepis dia. at base *</td>
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<td></td>
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<td>Ambulatory (int.)</td>
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</tr>
<tr>
<td>Cella wall wid.</td>
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</tr>
<tr>
<td>Cornice wid.</td>
<td>0.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornice hei.</td>
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<td></td>
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</tr>
<tr>
<td>Door dep.</td>
<td>1.09</td>
<td>1/20</td>
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</tr>
<tr>
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<td>2.3</td>
<td>2/19</td>
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</tr>
<tr>
<td>Door hei.</td>
<td>4.7</td>
<td>2/9</td>
<td></td>
</tr>
<tr>
<td>Door lintel</td>
<td>0.8</td>
<td>1/27</td>
<td></td>
</tr>
<tr>
<td>Total hei. (ext. columns)</td>
<td>6.88</td>
<td>6 7/8</td>
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<tr>
<td>Lower column dia. **</td>
<td>1</td>
<td>1/22</td>
<td>1</td>
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<tr>
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<td>2</td>
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<td>15 7/8</td>
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<td>1/11</td>
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<td>1/31</td>
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<tr>
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<td></td>
</tr>
<tr>
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<td>1/8</td>
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</tr>
<tr>
<td>Finial hei.</td>
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<tr>
<td>Floorspace (square measure)</td>
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<tr>
<td>Volume (cubic measure)</td>
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</table>

**Note:**
- *critical dimension*
- **in relation to the lower column dia.

Source: Seiler 1986, 71-88 figs. 31-5.
Chart #13. EPIDAUROS: Tholos

Critical dimension = Krepis dia. at base

- Final wid.
- Acroteria wid.
- Entablature hel. (int.)
- Cornice hel.
- Cornice wid.
- Frieze hei.
- Architrave hei.
- Entablature hei. (ext.)
- Interaxial dia.
- Interaxial
- Intercolumnation
- Lower column dia.
- Door lintel
- Door hei.
- Door wid.
- Door dep.
- Cella wall wid.
- Ambulatory (int.)
- Krepis dia. at base
- Ramp len.
- Stair treads
- Foundation dia.
- Foundation dep.
- Hei. to finial
- Cella int.
#13 EPIDAUROS:
Tholos
Scale 1:200
#14 ILION: Rotunda

**Context:** acropolis, on axis with the Temple of Athena; rests on the opening to a well (5th or 4th c. BC), accessed via an underground cavity (Hellenistic period?)

**Date:**
I. late Hellenistic period: materials and techniques
II. Augustan period: limited restoration work

**Description:**
I. drum (1.85 m. in dia., marble) with a 2-step krepis, 6 Doric pilasters (exterior), windows, an entablature, and a conical roof
II as I.

**Remains:**
I. remains of the foundations, krepis, eutnyteria, pilasters and screen walls (marble); accompanied by small altars? (poros; see Dörpfeld 1902, 229)
II. repairs to the screen walls (marble)

**Excavations:** in the mid-1800s

**Bibliography:** Dörpfeld 1902, 177-81, 228-9, and figs. 91-2. La Rocca 1993, 20.

**Text:** 34-8.
## ILION: Rotunda

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>meters</th>
<th>ideal proportional relationships to critical dimension</th>
<th>within columnar order</th>
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</thead>
<tbody>
<tr>
<td>Drum ext.</td>
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<td>1/2</td>
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<td>0.09</td>
<td>1/20</td>
<td></td>
</tr>
<tr>
<td>Stair risers</td>
<td>0.07</td>
<td>1/25</td>
<td></td>
</tr>
<tr>
<td>Krepis dia. at base *</td>
<td>1.85</td>
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<tr>
<td>Krepis dia. at euthyneteria</td>
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</tr>
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<tr>
<td>Euthyneteria hei.</td>
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<td>1/23</td>
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</tr>
<tr>
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<td>1/11</td>
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<td>3/9</td>
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<td>10 5/6</td>
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<td></td>
<td>1 1/2</td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.08</td>
<td>1/23</td>
<td>2/3</td>
</tr>
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<td>0.07</td>
<td>1/25</td>
<td>7/12</td>
</tr>
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<td>1</td>
</tr>
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<td>5/8</td>
<td>9 2/3</td>
</tr>
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<td>1/12</td>
<td>1 1/4</td>
</tr>
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<td>11/24</td>
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<td>4 1/6</td>
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<tr>
<td>Interaxial</td>
<td>0.7</td>
<td>3/8</td>
<td>5 5/6</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>0.69</td>
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<tr>
<th>reconstructed measurements</th>
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<th></th>
</tr>
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<tr>
<td>Entablature hei. (ext.)</td>
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<td>1/7</td>
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<tr>
<td>Architrave hei.</td>
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<tr>
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<td>Volume (cubic measure)</td>
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<td></td>
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</table>

Note:  
* critical dimension  
** in relation to the lower column dia.

Source: Dorpfeld 1902, 177-81 and 228-9, figs. 91-2.
#14 ILION:
Rotunda
Scale 1:25
ISTHMIA: Palaimon-Melikertes, Temple

Context: rectilinear precinct next to the starting gates of the Stadium (pre-146 BC) and to the SE of the Sanctuary of Poseidon, to which it was linked by a monumental doorway (ca. 10 m. wide, E); oriented towards the doorway (E)

Date: Antonine period: height of the ground level (see Bronner 1973, 107-8 and 112), building materials and techniques (specifically the lime mortar, see Bronner 1973, 106), date of the ancient sources (on Pausanias’ visit in 155-170 AD, see ‘Literary and epigraphical sources: Location and description’ below), and coins (see ‘Iconographic sources’ below)

Patron: Publius Licinius Priscus Juventianus (see text)

Description: round monopteros (6.88 m. in dia., marble) on a high socle (7.0 m. per side), accessed by steps on all sides, with 11 columns (Corinthian?, see text), an entablature, acroterial sculpture (with dolphin and floral motifs, see text), and a dome topped by a pineaple finial; contained a statue of Palaimon (see ‘Decoration’ below)

Remains: foundations incl. a pit and a corridor (stone-faced concrete with the corridor revetted in stucco-covered poros, see text), and acroterial sculpture; to the E is an altar, while inside the precinct, 1st-2nd c. AD lamps were discovered in pits A and B (Bronner 1973, 102-4), together with terracotta pipes and unidentified fragments of statuary (Bronner 1973, 92-5 and 111)

Literary and epigraphical sources:


Location and description: Paus. 2.1.3, 1.7, 2.1, and 3.4 (location in the precinct, adytum, statues, see ‘Decoration’ below).

Iconographic sources: coins minted under Hadrian, Marcus Aurelius, Caracalla, and Geta (MacDonald 1901, 104 no. 136, and Edwards 1933, 28 no. 111 pl. 3; cf. Imhoof-Blumer and Gardner 1888, 10-2 pls. 11-3, and BMC Corinth 1889, pl. 20.22).

Decoration: statue of Palaimon lying on a dolphin (see ‘Iconographic sources’ above and Weber 1990, 115) inside the Temple together with statues of Palaimon, Leucothea and Poseidon in the precinct (Paus. 2.2.1; see text)

Excavations: O. Bronner in 1955-1958 (both the precincts of Palaimon-Melikertes and of Poseidon)


Text: 186-8.
## ISTHMIA: Palaimon-Melikertes, temple

<table>
<thead>
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<th>actual measurements</th>
<th>meters</th>
<th>roman feet</th>
<th>roman feet</th>
<th>% difference</th>
<th>ideal proportional relationships to critical dimension * within columnar order **</th>
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<td>2.35</td>
<td>2.2%</td>
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<td>6.0</td>
<td>-2.5%</td>
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<td>27</td>
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<tr>
<td>Socle wid. at stylobate (per side)</td>
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<td>23.7</td>
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<td>6.1</td>
<td></td>
<td>1/4</td>
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</tr>
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<td>Stylobate hei.</td>
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<td>2.2%</td>
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<tr>
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<td>1/20</td>
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## reconstructed measurements

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<th>39.7</th>
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<td>1/9</td>
</tr>
<tr>
<td>Capital hei.</td>
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<td>2.4</td>
<td>1/10</td>
</tr>
<tr>
<td>Intercolumnation</td>
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<td>Interaxial</td>
<td>1.67</td>
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<td>3 2/7</td>
</tr>
<tr>
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<td>7/8</td>
</tr>
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<td>2.4</td>
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<tr>
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<td>1/24</td>
</tr>
<tr>
<td>Frieze hei.</td>
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<td>1</td>
<td>1/24</td>
</tr>
<tr>
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<td>0.3</td>
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</tr>
<tr>
<td>Cornice wid.</td>
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<td>1/18</td>
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<tr>
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<td>1.11</td>
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</tr>
<tr>
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</tr>
<tr>
<td>Roof hei.</td>
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<td>6.4</td>
<td>6.5</td>
</tr>
<tr>
<td>Finial wid.</td>
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<td>2.6</td>
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</tr>
<tr>
<td>Finial hei.</td>
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<td>5.24</td>
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**Note:**  
* critical dimension  
** in relation to the lower column dia.

**Source:** Broneer 1973, 109-12 plans 8-9 and pl. 73.
#15 ISTHMIA:
Palaimon-Melikertes, temple
Scale 1:100
Context: Sanctuary of Aphrodite Eupeia: accessed via a ceremonial road, the Temple sits on a garden terrace (Ps. Luc. am. 8.11-18) aligned with an altar (E) and flanked by a rectangular treasury or shrine and its accompanying altar (W)

Date:
I. post-4th c. BC: building materials and ceramic deposits (see Love 1972, 75, and 1973, 419-21)
II. late Hellenistic or Roman period: stylistic analysis of the Corinthian capital (see Love 1972, 74, and ‘Remains’ below)

Description:
I. round monopteros (17.3 m. in dia., stucco-covered sandstone) with a 3-step krepis preceded by 4 stairs, 18 Doric columns, and a Doric entablature
II. as I, though with Corinthian columns and an Ionic entablature

Remains:
I. the foundations (limestone with a rubble core), the stylobate, a column drum, a Doric capital, and fragments of the architrave? (stucco-covered sandstone; for the architrave, see Love 1972, 74); also extant are the Temple’s altar, an inscribed circular monument (marble, see ‘Literary and epigraphical sources: Inscriptions from Remains’ below), a statue base (gray marble), and sculptural fragments (of Praxiteles’ Aphrodite?, see Love 1972, 75-6) incl. a hand, a finger and drapery (Parian marble)
II. a Corinthian capital (limestone) and fragments of the architrave? (stucco-covered sandstone, see Love 1972, 74)

Literary and epigraphical sources:
Inscriptions from ‘Remains’:
I. ΠΡΑΞ[......] Ε[....]Ο[...] ΚΑΙΑΓΥΜ[.....] ΑΑ[..] / ΥΠΕΡΤΑ[......] ΣΚΛΕ[..] / ΘΑ
(fragmentary inscription from the circular monument, which may refer to Praxiteles’ Aphrodite, see Love 1972, 72-4).

Location and description: Ps. Luc. am. 8.11-18 (Temple, gardens).

Decorative scheme: Ps. Luc. am. 8.11-18 and Plin. nat. 26.4.21 (statue of Aphrodite).

Decoration: statue of Aphrodite by Praxiteles (see ‘Remains’ and ‘Decorative scheme’ above)


<table>
<thead>
<tr>
<th><strong>KNIDOS: Aphrodite, temple</strong></th>
<th><strong>Ideal proportional relationships to critical dimension</strong></th>
<th><strong>Within column order</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Actual measurements</strong></td>
<td><strong>Meters</strong></td>
<td><strong>3/5</strong></td>
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<tr>
<td>Hei. to roof</td>
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<td>Stair treads</td>
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</tr>
<tr>
<td>Stair risers</td>
<td>0.23</td>
<td></td>
</tr>
<tr>
<td>Stairway len.</td>
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<td></td>
</tr>
<tr>
<td>Stairway wid.</td>
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</tr>
<tr>
<td>Krepis dia. at base *</td>
<td>16.6</td>
<td>1</td>
</tr>
<tr>
<td>Krepis dia. at euthynteria</td>
<td>13.3</td>
<td>4/5</td>
</tr>
<tr>
<td>Krepis hei.</td>
<td>1.66</td>
<td>1/10</td>
</tr>
<tr>
<td>Euthynteria hei.</td>
<td>0.34</td>
<td></td>
</tr>
<tr>
<td>Total hei. (columns)</td>
<td>4.55</td>
<td>3/11</td>
</tr>
<tr>
<td>Base dia.</td>
<td>1.135</td>
<td>1/15</td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.18</td>
<td></td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.7</td>
<td>1/24</td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>4.1</td>
<td>1/4</td>
</tr>
<tr>
<td>Capital dia.</td>
<td>0.9</td>
<td>1/18</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.27</td>
<td></td>
</tr>
<tr>
<td>Intercolumnnation</td>
<td>1.135</td>
<td>1/15</td>
</tr>
<tr>
<td>Interaxial</td>
<td>2.27</td>
<td>3/22</td>
</tr>
<tr>
<td>Interaxial dia.</td>
<td>12.1</td>
<td>3/4</td>
</tr>
<tr>
<td>Entablature hei. (phase 1)</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.45</td>
<td>1/37</td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.45</td>
<td>1/37</td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>0.5</td>
<td>1/33</td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Roof dia.</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>95.0</td>
<td></td>
</tr>
<tr>
<td>Volume (cubic measure)</td>
<td>969.3</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**  
* critical dimension  
** in relation to the lower column dia.

**Source:** Love 1972, 70-6 figs. 5-9.
Lavinium: Penates, Shrine

Context: near the Sanctuary of Frutis? (see text)
Date: 6th c. BC? (see text): date of the Sanctuary of Frutis (see text)
Founder: Aeneas?
Description: round monopteros
Remains: none

Literary and epigraphical sources:
Location: Varro ling. 5.144: Oppidum quod primum conditum in Latio stirpis Romanae, Lavinium: name ibi dii Penates nostri (Penates at Lavinium). Dion. Hal. 1.57.1 (Shrine at Lavinium).
Cult: CIL X 797 (priesthood). Macr. Sat. 3.4.11 and Serv. Aen. 2.296 (yearly sacrifices for Vesta and the Penates). Dion. Hal. 1.57.1 (location of the festival). Val. Max. 1.6.7; cf. Cic. off. 3.109 (festival 1st attested in 137 BC).
Decorative scheme: Varro ling. 5.144 (Penates, see ‘Location’ above). Dion. Hal. 67.3 (other Trojan cult objects at Lavinium). Verg. Aen. 7.59 fol. (sacred laurel tree).

Iconographic sources: late Republican coins (see Furtwängler 1900, pl. 38 no. 6); medallions of Hadrian and Antoninus Pius (see Robert 1939, 374, Castagnoli 1972, 78 fol., 109, and 113 fol., and Scott 1999c, 129)
Decoration: Trojan cult objects incl. the Penates (see ‘Literary and epigraphical sources’ above); altar (see ‘Iconographic sources’ above); sacred tree (see ‘Literary and epigraphical sources: Decorative scheme’ and ‘Iconographic sources’ above)


Text: 20-1.
#18 MAGNESIA ON THE MEANDER: Athena Poliouchos, Shrine

**Context:** near the Theater; orientation unknown

**Date:** 2nd c. AD; inscription (see ‘Literary and epigraphical sources: Inscriptions from Remains’ below) and see Roux 1992, 178 and 196

**Founder:** Apollonius (see ‘Literary and epigraphical sources: Inscriptions from Remains’ below)

**Description:** round monopteros? (3.38 m. in dia., marble?)

**Remains:** part of the inscribed architrave (marble?)

**Literary and epigraphical sources:**

- Inscriptions from ‘Remains’: Kern 1900, no. 216 (dedicatory inscription, architrave)
- Excavations: unknown

**Previous attributions:** Roux (1992, 178) identifies it as a dedication of the city of Athens


**Text:** 184.
#18 MAGNESIA ON THE MEANDER:
Athena Poliouchos, shrine
Scale 1:50
#19 MILETOS: Apollo Delphinios, Shrine

**Context:** Sanctuary of Apollo Delphinios, set in a porticoed court; flanked by exedrae

**Date:**
I. Hellenistic period: building remains (see ‘Remains’ below)
II. Julio-Claudian period: building remains (see 'Remains' below)

**Description:**
I. round monopteros? (11.72 m. in dia.)
II. round monopteros (11.72 m. in dia., marble) on a 3-step krepis with 12 columns

**Remains:**
I. part of the foundations
II. part of the foundations and krepis (marble-revetted concrete)

**Decoration:**
I. statue of Apollo Delphinios inside the Shrine (see Weber 1990, 114 and 224 cat. M19)

**Excavations:**
G. Kawerau and A. Rehm in the early 1900s

**Bibliography:**

**Text:** 130.
### Miletos: Apollo Delphinios, Shrine

<table>
<thead>
<tr>
<th>Actual Measurements</th>
<th>Meters</th>
<th>Ideal Proportional Relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stair Treads</td>
<td>0.465</td>
<td>1/25</td>
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<td>11.72</td>
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<td>Krepis dia. at euthynteria</td>
<td>9</td>
<td>3/4</td>
</tr>
<tr>
<td>Base dia. (columns)</td>
<td>0.75</td>
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<td>Intercolumnation</td>
<td>1.39</td>
<td>3/25</td>
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<td>1.86</td>
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<td>Interaxial dia.</td>
<td>7.44</td>
<td>5/8</td>
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<tr>
<td>Floor space</td>
<td>43.5</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** *critical dimension*

**Source:** Kawerau and Rehm 1914, 147-8.
#19 MILETOS:
Apollo Delphinios, shrine
Scale 1:100
#20 NAPLES AREA: Fumelos, Vesta or Ceres, Shrine

**Context:** near S. Angelo a Nilo

**Date:** late Republic: inscription (see ‘Literary and epigraphical sources’ below)

**Description:** round

**Remains:** a round wall? (see Altmann 1906, 44)

**Literary and epigraphical sources:** CIG 5786 (building inscription?)

**Bibliography:** Altmann 1906, 44-5.

**Text:** 62.
Context: lucus Capenatis, Sanctuary of Feronia
Date:
I. Republic (3rd c. BC?): ancient sources (see ‘Literary and epigraphical sources: Location and date’ below)
II. Imperial period?: column (see ‘Remains’ below)
Description: round (20 m. in dia.)
Remains:
I. 6 Ionic columns (5 of granite and 1 of Carian marble, which may pertain to an Imperial rebuilding, see Altmann 1906, 42), part of the frieze and the door frame; a seated female figure was found nearby
II see I.
Literary and epigraphical sources:
Location and date: Cato frg. 30, Verg. Aen. 7.697, Liv. 1.30.5, and Dion. Hal. 3.32.1 (lucus Capenatis, sanctuary of Feronia). Liv. 26.11.8 and Sil. 13.83 (Temple gifts and cult objects plundered by Hannibal, ca. 211 BC).
Excavations: R. Lanciani in the 1860s
Text: 62.
<table>
<thead>
<tr>
<th>Actual Measurements</th>
<th>Ideal Measurements</th>
<th>Ideal Proportional Relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total ext. *</td>
<td>20.0 meters</td>
<td>68.0 roman feet</td>
</tr>
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<td>Floorspace (square measure)</td>
<td>314.2</td>
<td>3631.7</td>
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</table>

Note: * critical dimension

Source: Jordan 1886, 8.
#21 NAZZANO:
Feronia, temple
Scale 1:200
#22 OLYMPIA: Philippeion

**Context:** old sanctuary, located near the Heraion and Pelopeion; oriented towards the Heraion (E)

**Date:** 338-320 BC: Pausanias (see ‘Literary and epigraphical sources: Decorative program’ below)

**Patron:** Philip II, king of Macedon, completed by his son, Alexander

**Description:** peripteros (15.4 m. in dia., limestone and marble) with a 3-step krepis, 18 Ionic columns (exterior) and 9 Corinthian pilasters (interior), 2 windows, 2 Ionic entablatures (interior and exterior), and a conical roof

**Remains:** part of the foundations, krepis, euthynteria, cella wall (muschelkalk and marble), columns (drums of muschelkalk, bases and capitals of limestone), pilasters (marble), entablatures (muschelkalk), and roof (marble)

**Literary and epigraphical sources:**

- **Decorative program:** Paus. 5.20.9-10 (statues of the Macedonian royal family).
- **Decoration:** statues (see ‘Literary and epigraphical sources: Decorative program’ above);
  - Macedonian Ionic capitals; Peloponnesian Corinthian pilasters; curved statue bank
- **Excavations:** in 1877-1878
- **Previous attributions:** Baldassarri (1998, 56) identifies the Philippeion as a *thesauros.*

**Text:** 34-8.
<table>
<thead>
<tr>
<th>Actual Measurements</th>
<th>Ideal Proportional Relationships</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>meters</td>
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<td>8.6</td>
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<tr>
<td>Cella int.</td>
<td>7.5</td>
</tr>
<tr>
<td>Hei. to finals</td>
<td>10.5</td>
</tr>
<tr>
<td>Foundation dep.</td>
<td>1.15</td>
</tr>
<tr>
<td>Stair treads</td>
<td>0.35</td>
</tr>
<tr>
<td>Stair rises</td>
<td>0.25</td>
</tr>
<tr>
<td>Krepis dia. at base</td>
<td>15.4</td>
</tr>
<tr>
<td>Krepis dia. at euthynemia</td>
<td>14</td>
</tr>
<tr>
<td>Krepis hei.</td>
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</tr>
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</tr>
<tr>
<td>Euthynemia hei.</td>
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<td>Ambulatoery (ext.)</td>
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</tr>
<tr>
<td>Cella wall wid.</td>
<td>0.98</td>
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<tr>
<td>Cornice wid.</td>
<td>0.13</td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.25</td>
</tr>
<tr>
<td>Soole hei. (int.)</td>
<td>1.75</td>
</tr>
<tr>
<td>Door dep.</td>
<td>1</td>
</tr>
<tr>
<td>Door wid.</td>
<td>1.9</td>
</tr>
<tr>
<td>Door hei.</td>
<td>4.63</td>
</tr>
<tr>
<td>Door jamb</td>
<td>0.1</td>
</tr>
<tr>
<td>Door lintel</td>
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</tr>
<tr>
<td>Window dep.</td>
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</tr>
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<td>Window wid.</td>
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</tr>
<tr>
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</tr>
<tr>
<td>Window jamb</td>
<td>0.1</td>
</tr>
<tr>
<td>Window lintel</td>
<td>0.1</td>
</tr>
<tr>
<td>Total hei. (ext. columns)</td>
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<td>Base dia.</td>
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<tr>
<td>Base hei.</td>
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<tr>
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<td>Shaft hei.</td>
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</tr>
<tr>
<td>Capital dia.</td>
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</tr>
<tr>
<td>Capital hei.</td>
<td>0.3</td>
</tr>
<tr>
<td>Intercolabration</td>
<td>1.4</td>
</tr>
<tr>
<td>Interaxial</td>
<td>2.4</td>
</tr>
<tr>
<td>Interaxial dia.</td>
<td>12.9</td>
</tr>
<tr>
<td>Total hei. (int. pilasters)</td>
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</tr>
<tr>
<td>Base dia.</td>
<td>0.55</td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.2</td>
</tr>
<tr>
<td>Lower column dia. **</td>
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</tr>
<tr>
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</tr>
<tr>
<td>Capital dia.</td>
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</tr>
<tr>
<td>Capital hei.</td>
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</tr>
<tr>
<td>Intercolabration</td>
<td>1.85</td>
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<tr>
<td>Interaxial</td>
<td>2.4</td>
</tr>
<tr>
<td>Interaxial dia.</td>
<td>7.25</td>
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<tr>
<td>Entablature hei. (ext.)</td>
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</tr>
<tr>
<td>Architrave hei.</td>
<td>0.45</td>
</tr>
<tr>
<td>Friese hei.</td>
<td>0.35</td>
</tr>
<tr>
<td>Dentihei.</td>
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</tr>
<tr>
<td>Cornice wid.</td>
<td>0.5</td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.4</td>
</tr>
<tr>
<td>Entablature hei. (int.)</td>
<td>0.55</td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.2</td>
</tr>
<tr>
<td>Friese hei.</td>
<td>0.35</td>
</tr>
<tr>
<td>Acroteria wid.</td>
<td>1.3</td>
</tr>
<tr>
<td>Acroteria hei.</td>
<td>0.2</td>
</tr>
<tr>
<td>Roof dia.</td>
<td>14.5</td>
</tr>
<tr>
<td>Roof hei.</td>
<td>2</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>44.2</td>
</tr>
<tr>
<td>Volume (cubic measure)</td>
<td>60.9</td>
</tr>
</tbody>
</table>

Note: * critical dimension
** in relation to the lower column dia.

Source: Seller 1986, 89-103 figs. 36-40.
#22 OLYMPIA:
Philippelion
Scale 1:100
#23 OSTIA: Lares Augusti, Shrine

**Context:** Forum, sited to the S of the Decumanus Maximus and opposite the Capitolium (N, 1st c. BC); no clear orientation

**Date:** 51 AD: inscriptions (see 'Literary and epigraphical sources: Inscriptions from Remains' below)

**Patrons:** L. Seius Hermeros, L. Seius Primus, and L. Seius Diomedes (see text)

**Description:** drum (5.7 m. in dia., brick-faced concrete) with 6 interior niches

**Remains:** the foundations, part of the cella wall (*opus testaceum*), and fragments of the cornice; 7 inscribed plates (marble, see text) were found nearby

**Literary and epigraphical sources:**

- *Inscriptions from ‘Remains’*: Inv. nos. 32, 46, 84-7, and 101 (see Bloch 1962, 214-8).

**Decoration:** inscribed plaques (see ‘Remains’ above)

**Excavations:** G. Calza in the 1950s

**Previous attributions:** Calza (et al. 1953, 71; vs. Bloch 1962, 211-3) identified it as a nymphaeum


**Text:** 128-9.
### OSTIA: Lares Augusti, shrine

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>meters</th>
<th>ideal roman feet</th>
<th>% difference</th>
<th>ideal proportional relationships</th>
</tr>
</thead>
<tbody>
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<td>5.7</td>
<td>19.3</td>
<td>1</td>
<td>2/7</td>
</tr>
<tr>
<td>Cella int. *</td>
<td>4.5</td>
<td>15.2</td>
<td>15</td>
<td>-1.3%</td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>0.6</td>
<td>2</td>
<td></td>
<td>2/15</td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>0.3</td>
<td>1</td>
<td></td>
<td>1/15</td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.6</td>
<td>2</td>
<td></td>
<td>2/15</td>
</tr>
<tr>
<td>Exedrae dep.</td>
<td>0.4</td>
<td>1.35</td>
<td></td>
<td>1/11</td>
</tr>
<tr>
<td>Exedrae wid.</td>
<td>0.6</td>
<td>2</td>
<td></td>
<td>2/15</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>15.9</td>
<td>181.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *critical dimension*

Source: Briggs 1962, 211-23 figs. 2-3.
#23 OSTIA:
Lares Augusti, shrine
Scale 1:50
#24 OSTIA: 'Pantheon' (L.XI.1)

**Context:** near the Forum, sited next to the Basilica (F, I.XI.5); oriented towards the Decumanus (N)

**Date:** under Alexander Severus; building materials and techniques (see Meiggs 1973, 550-1), and the statue of Alexander Severus (see 'Remains' below)

**Patron:** Alexander Severus? (see text)

**Description:** round (mainly marble-faced *opus testaceum*) with a 10-column porch (30.3 m. long by 5.9 m. wide, Attic-Asian bases, monolithic shafts, Corinthian capitals; fronted by steps and statue niches), an intermediate block (11.6 m. long by 1.4 m. wide, incl. Corinthian pilasters and 2 stairwells), and a domed drum (18.30 m. in dia., articulated with 7 niches flanked by 8 columns); preceded by a rectangular court (framed by steps which provide access to the statue niches, see text)

**Remains:** most of the foundations and podium (*opus vittatum mixtum* of brick and tufa, see text and Meiggs 1973, 550); porch: fragments of the steps, statue niches (marble-faced brickwork), and columns (Luna marble bases and capitals, cipollino shafts); intermediate block: part of the pilasters, the stairwells (marble-faced brick work?, see text; 1 incl. a travertine pillar), and the base and cornice molding (marble, see text); drum: part of the walls (brick-faced concrete) and columns (marble pedestals and shafts); pavement of the porch, intermediate block and drum (multi-colored marble); court: fragments of the pavement, drains (white marble), steps, and statue niches (marble-faced brickwork); a portrait head of Alexander Severus (*MNR* I 9, 360 no. R273) was found inside the Temple

**Decoration:** court and Temple pavement (see 'Remains' above); statue of Alexander Severus (see 'Remains' above); a portrait head of Gordian III (*MNR* I 1, 310 no. 186) and a base for a statue of his wife (*CIL* XIV Suppl. 4399) were added later

**Excavations:** C. Briggs in the 1920s (known from the early 1800s, see Briggs 1930, 162-3)

**Previous attributions:** Briggs (1930, 168) dates the Temple to the post-Constantinian period, while Meiggs (1973, 81) attributes its construction to Gordian III


**Text:** 224-6.
### OSTIA: 'Pantheon'

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>meters</th>
<th>roman feet</th>
<th>% difference</th>
<th>ideal proportional relationships to critical dimension</th>
<th>within columnar order **</th>
</tr>
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<td>Total ext. *</td>
<td>23.8</td>
<td>89.4</td>
<td>-0.3%</td>
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<td>22.1</td>
<td>74.66</td>
<td>14/15</td>
<td></td>
<td></td>
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<tr>
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<td>18.3</td>
<td>61.8</td>
<td>7/9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Porch len.</td>
<td>5.9</td>
<td>19.9</td>
<td>1/4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Porch wid.</td>
<td>30.3</td>
<td>102.4</td>
<td>1/27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate block len.</td>
<td>11.6</td>
<td>39.2</td>
<td>40</td>
<td>1/2</td>
<td></td>
</tr>
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<td>Intermediate block wid.</td>
<td>4.7</td>
<td>1/17</td>
<td>2.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stairwells dia.</td>
<td>1.53</td>
<td>5.17</td>
<td>5.3</td>
<td>2.5%</td>
<td>1/15</td>
</tr>
<tr>
<td>Stair treads (lower)</td>
<td>0.33</td>
<td>1.1</td>
<td>1.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stair treads (landing)</td>
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<td>2.4</td>
<td>2.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stair risers</td>
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<td>0.78</td>
<td>0.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stairway len.</td>
<td>4.1</td>
<td>13.5</td>
<td>1/6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stairway wid.</td>
<td>10.1</td>
<td>33.8</td>
<td>3/7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stairway wid. (incl. balconades)</td>
<td>14.9</td>
<td>50.3</td>
<td>50</td>
<td>-0.6%</td>
<td>5/8</td>
</tr>
<tr>
<td>Podium hei.</td>
<td>2.56</td>
<td>8.65</td>
<td>1/9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Podium cornice wid.</td>
<td>0.23</td>
<td>0.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>1.9</td>
<td>6.4</td>
<td>2/25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cella wall wid. (at exedrae)</td>
<td>0.7</td>
<td>2.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exedrae dep. (rectangular)</td>
<td>1.9</td>
<td>6.4</td>
<td>2/25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exedrae wid.</td>
<td>4.4</td>
<td>14.9</td>
<td>15</td>
<td>0.7%</td>
<td>3/16</td>
</tr>
<tr>
<td>Exedrae dep. (semicircular)</td>
<td>1.3</td>
<td>4.4</td>
<td>4.4</td>
<td>0.9%</td>
<td>1/18</td>
</tr>
<tr>
<td>Exedrae wid.</td>
<td>3.8</td>
<td>12.8</td>
<td>13</td>
<td>1.6%</td>
<td>1/6</td>
</tr>
<tr>
<td>Door dep.</td>
<td>0.3</td>
<td>1</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Door wid.</td>
<td>4.1</td>
<td>13.9</td>
<td></td>
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</tr>
<tr>
<td>Total hei. (porch columns)</td>
<td>7.3</td>
<td>24.7</td>
<td>24</td>
<td>-2.8%</td>
<td>3/10</td>
</tr>
<tr>
<td>Base wid.</td>
<td>1.15</td>
<td>3.99</td>
<td>1/20</td>
<td>1 3/4</td>
<td></td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.5</td>
<td>1.55</td>
<td>5/7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.66</td>
<td>2.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>6.1</td>
<td>20.9</td>
<td>9 1/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital dia.</td>
<td>1.15</td>
<td>3.99</td>
<td>4</td>
<td>2.8%</td>
<td>1/20</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.7</td>
<td>2.35</td>
<td>1</td>
<td></td>
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</tr>
<tr>
<td>Intercolunnation</td>
<td>1.4</td>
<td>4.7</td>
<td>1/17</td>
<td>2 1/7</td>
<td></td>
</tr>
<tr>
<td>Interaxial</td>
<td>2.55</td>
<td>8.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedestal wid. (int. columns)</td>
<td>1.3</td>
<td>4.4</td>
<td>4.4</td>
<td>0.9%</td>
<td>1/18</td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.85</td>
<td>2.87</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Intercolunnation</td>
<td>5.8</td>
<td>19.6</td>
<td>20</td>
<td>2.0%</td>
<td>1/4</td>
</tr>
<tr>
<td>Interaxial</td>
<td>7</td>
<td>23.65</td>
<td>24</td>
<td>1.5%</td>
<td>3/10</td>
</tr>
<tr>
<td>Intercuscia dia.</td>
<td>17</td>
<td>57.4</td>
<td>5/7</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>0.58</td>
<td>1.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.73</td>
<td>2.47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>2630.0</td>
<td>2999.6</td>
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<table>
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<tr>
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<th>23.1</th>
<th>77.9</th>
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<tbody>
<tr>
<td>Porch hei.</td>
<td>8</td>
<td>27</td>
<td>1/3</td>
</tr>
<tr>
<td>Door hei.</td>
<td>4.76</td>
<td>16.1</td>
<td>1/5</td>
</tr>
<tr>
<td>Entablature hei. (ext.)</td>
<td>2</td>
<td>6.9</td>
<td>1/5</td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.58</td>
<td>1.96</td>
<td>2</td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.73</td>
<td>2.47</td>
<td>2.5</td>
</tr>
<tr>
<td>Roof dia.</td>
<td>21</td>
<td>70.95</td>
<td>8/9</td>
</tr>
<tr>
<td>Roof hei.</td>
<td>6.42</td>
<td>21.7</td>
<td>8/9</td>
</tr>
<tr>
<td>Oculus dia.</td>
<td>4.38</td>
<td>14.8</td>
<td>15</td>
</tr>
<tr>
<td>Volume (cubic measure)</td>
<td>817.2</td>
<td>24400.9</td>
<td>1</td>
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</table>

**Note:** *critical dimension
** in relation to the lower column dia.

Source: Briggs 1930, 164-5 pls. 54-6.
#24 OSTIA:
'Pantheon' (1.XI.1)
Scale 1:200
#25 PELLA: Round court with tholoi annexes

**Context:** to the SW of the palace (4th c. BC); no clear orientation
**Date:** 2nd half of the 4th c. BC with mosaics of the late 4th c. BC: building materials and techniques comparable to the palace at Vergina (see Seiler 1986, 134)
**Description:** 3 drums (6.80 m. in dia., mostly limestone) with conical roofs, adjacent to a round court (30.48 m. in dia.)
**Remains:** most of the socle (limestone), some roof drains, and fragments of mosaic work and wall paintings
**Decoration:** mosaic flooring and wall paintings (see ‘Remains’ above)
**Excavations:** C. Makaronas in 1963-1964
**Previous attributions:** Seiler (1986, 133-5) sees the tholoi as dining rooms and round court as an assembly area, while Price (1973, 66-71) identifies the court as a dedication to Herakles Phylakos.
**Text:** 34-8.
### PELLA: Round Court with tholoi annexes

<table>
<thead>
<tr>
<th>Actual Measurements</th>
<th>Meters</th>
<th>Proportional Relationships</th>
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<tbody>
<tr>
<td>Cella ext. *</td>
<td>6.80</td>
<td>1</td>
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<tr>
<td>Cella int.</td>
<td>6.00</td>
<td>8/9</td>
</tr>
<tr>
<td>Court dia.</td>
<td>30.48</td>
<td>4 1/2</td>
</tr>
<tr>
<td>Court wall wid.</td>
<td>0.46</td>
<td>1/15</td>
</tr>
<tr>
<td>Court door wid.</td>
<td>2.10</td>
<td></td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>0.4</td>
<td>1/17</td>
</tr>
<tr>
<td>Door dep.</td>
<td>0.4</td>
<td>1/17</td>
</tr>
<tr>
<td>Door wid.</td>
<td>1.2</td>
<td>3/17</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>729.66</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Reconstructed Measurements</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Roof Width</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Note: * critical dimension

Chart #25. PELLA: Round Court with tholoi annexes

- Roof Width
- Door wid.
- Door dep.
- Cella wall wid.
- Court wall wid.
- Court dia.
- Cella int.
- Cella ext.

Proportion of critical dimension = Cella ext.
#25 PELLA:
Round court with tholoi annexes
Scale 1:200
Context: Sanctuary of Zeus Asklepios Soter, at the SE corner of the precinct next to the Temple of Zeus Asklepios Soter (#27, Hadrianic); oriented towards the open court (SW, 120 m. long by 90 m. wide)

Date: ca. 200 AD; building materials and techniques (see text)

Description: drum (31.95 m. in dia., mainly andesit, brick and concrete) on 2 levels, the lower with a central core and 3½ rings of 17 pillars and walls indented with 14 windows (see text) and the upper with 6 exedrae flanked by Corinthian? pilasters and topped by a dome (see text and Ziegenaus 1981, 98-9); the lower level is accessed by the portico and a cryptoporticus, and the upper by stairs and a ramp from the lower level

Remains: much of the lower level (andesit-faced concrete walls, pillars and stairs, marble revetment, and concrete barrel vaults; incl. an elaborate water distribution system, see Ziegenaus 1981, 88-92), and fragments of the floor (marble-revetted concrete?, see Ziegenaus 1981, 95), apses (brick semi-domes and revetment, see ‘Decoration’ below), and the revetment (see ‘Decoration’ below) of the upper level

Decoration: mosaics employed in the upper level (yellow, green, and blue glass, and red and white limestone, see Ziegenaus 1981, 100)

Excavations: T. Wiegand in 1930


<table>
<thead>
<tr>
<th>upper level actual measurements</th>
<th>meters</th>
<th>roman feet</th>
<th>roman feet</th>
<th>difference</th>
<th>ideal proportional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total ext. *</td>
<td>47.95</td>
<td>161.99</td>
<td>162</td>
<td>0.00%</td>
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<tr>
<td>Cella ext.</td>
<td>31.95</td>
<td>107.9</td>
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<td></td>
<td>2/3</td>
</tr>
<tr>
<td>Cella int.</td>
<td>27.06</td>
<td>91.4</td>
<td></td>
<td></td>
<td>4/7</td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>4.89</td>
<td>16.5</td>
<td></td>
<td></td>
<td>1/10</td>
</tr>
<tr>
<td>Exedras dep.</td>
<td>8</td>
<td>27</td>
<td></td>
<td></td>
<td>1/6</td>
</tr>
<tr>
<td>Exedrae wid.</td>
<td>11.05</td>
<td>37.33</td>
<td>37</td>
<td>-0.9%</td>
<td>2/9</td>
</tr>
<tr>
<td>Door dep. (NE door)</td>
<td>2</td>
<td>6.75</td>
<td></td>
<td></td>
<td>1/24</td>
</tr>
<tr>
<td>Door wid.</td>
<td>6.5</td>
<td>22</td>
<td></td>
<td></td>
<td>1/12</td>
</tr>
<tr>
<td>Door dep. (SW door)</td>
<td>2</td>
<td>6.75</td>
<td></td>
<td></td>
<td>1/24</td>
</tr>
<tr>
<td>Door wid.</td>
<td>4</td>
<td>13.5</td>
<td></td>
<td></td>
<td>1/12</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>1178.3</td>
<td>31431.9</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>lower level actual measurements</th>
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<th></th>
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</tr>
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<tbody>
<tr>
<td>Lower level dia. (ext.) *</td>
<td>47.95</td>
<td>162</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Lower level dia. (int.)</td>
<td>44.58</td>
<td>150.6</td>
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<tr>
<td>Core dia.</td>
<td>18.04</td>
<td>60.95</td>
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<td></td>
<td>3/8</td>
</tr>
<tr>
<td>Corridor around core wid.</td>
<td>11.63</td>
<td>39.3</td>
<td></td>
<td></td>
<td>1/4</td>
</tr>
<tr>
<td>Cryptoponticus len.</td>
<td>68.8</td>
<td>232.4</td>
<td></td>
<td></td>
<td>1/35</td>
</tr>
<tr>
<td>Stair treads</td>
<td>0.25</td>
<td>0.85</td>
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</tr>
<tr>
<td>Stairway wid. (ext.)</td>
<td>1.8</td>
<td>6.1</td>
<td></td>
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</tr>
<tr>
<td>Stairway wid. (int.)</td>
<td>1.38</td>
<td>4.66</td>
<td></td>
<td></td>
<td>1/35</td>
</tr>
<tr>
<td>Wall wid.</td>
<td>1.6</td>
<td>5.3</td>
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</tr>
<tr>
<td>Door dep. (NE door)</td>
<td>1.44</td>
<td>4.86</td>
<td></td>
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<td>1/33</td>
</tr>
<tr>
<td>Door wid.</td>
<td>2.82</td>
<td>9.53</td>
<td></td>
<td></td>
<td>1/17</td>
</tr>
<tr>
<td>Door hei.</td>
<td>3.17</td>
<td>10.7</td>
<td></td>
<td></td>
<td>1/15</td>
</tr>
<tr>
<td>Door dep. (SW door)</td>
<td>3.12</td>
<td>10.5</td>
<td></td>
<td></td>
<td>1/15</td>
</tr>
<tr>
<td>Door wid.</td>
<td>2.46</td>
<td>8.31</td>
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<td></td>
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</tr>
<tr>
<td>Door hei.</td>
<td>3</td>
<td>10.1</td>
<td></td>
<td></td>
<td>1/16</td>
</tr>
<tr>
<td>Window wid.</td>
<td>1.28</td>
<td>4.32</td>
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<tr>
<td>Window hei.</td>
<td>2.15</td>
<td>7.26</td>
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<td>1/22</td>
</tr>
<tr>
<td>Shaft wid. (square pillars)</td>
<td>2.5</td>
<td>8.45</td>
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<td>1/19</td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>3.29</td>
<td>11.1</td>
<td></td>
<td></td>
<td>1/15</td>
</tr>
<tr>
<td>Shaft wid. (narrow pillars)</td>
<td>1.1</td>
<td>3.7</td>
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<tr>
<td>Shaft hei.</td>
<td>3.29</td>
<td>11.1</td>
<td></td>
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<td>1/15</td>
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<th>upper level reconstructed measurements</th>
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<tr>
<td>Total hei.</td>
<td>41.9</td>
<td>141.55</td>
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<td>7/8</td>
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<tr>
<td>Hei. to roof</td>
<td>27.6</td>
<td>93.2</td>
<td></td>
<td></td>
<td>4/7</td>
</tr>
<tr>
<td>Oculus dia.</td>
<td>9.5</td>
<td>32.1</td>
<td></td>
<td></td>
<td>1/5</td>
</tr>
<tr>
<td>Volume (cubic measure)</td>
<td>7302.8</td>
<td>19556.3</td>
<td></td>
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</tr>
</tbody>
</table>

Note:  * critical dimension
** in relation to the lower column dia.

Source: Ziegenaus 1981, 76-100 pls. 25-45.
#26 PERGAMON:
Abaton
Scale 1:400
Context: Sanctuary of Zeus Asklepios Soter, along the E side of the precinct between the Propylon (Hadrianic, see text) and the Abaton (200 AD, see #26 and text); oriented towards the open court (W, 120 m. long by 90 m. wide)

Date: Hadrianic period (123-129 AD?, see Gros 1996a, 182): Ael. Arist. Isthm. 42.4 (see 'Literary and epigraphical sources: Attribution' below), building materials, techniques and style (see text)

Patron: L. Cuspius Rufinus (see text)

Description: round (marble and andesite, see 'Remains' below) with a rectangular pronaoi (10.4 m. long by 14.5 m. wide, accessed by steps, consists of 4 columns with Attic bases, fluted shafts and Corinthian capitals, and a pediment), an intermediate block (7.6 m. long by 16 m. wide, comprises 2 pilasters with Attic bases, monolithic shafts, and Corinthian capitals, and a pediment), and a drum (28 m. in dia., accessed by 2 steps, incl. 3 semi-circular and 4 rectangular exedrae, pilasters with Attic bases and Corinthian capitals, and an entablature), whose dome is reached by a stair tower (5.28 m. wide by 4.92 m. deep); 2 rooms flank the stairs to the drum (see Ziegenaus 1981, 38-9)

Remains: most of the foundations and podium (andesite and concrete, see Ziegenaus 1981, 30-2); pronaoi: fragments of the steps (marble-revetted concrete), 1 column drum, the entablature, and the pediment’s cornice and sculpture (marble, see ‘Decoration’ below); intermediate block: fragments of the pilasters (1 marble capital and 2 granite shafts), the entablature, coffers, and the pediment’s cornice (marble); drum: fragments of the walls (andesite ashlar masonry), the floor and wall revetment (various marbles and mosaics, see ‘Decoration’ below), the pilasters, the entablature (marble), and the dome (rubble and mortar)

Literary and epigraphical sources:


Iconographic sources:

Cult statue?: coins of Marcus Aurelius and Commodus (see Deubner 1938, 54)

Decoration: pediment of the pronaoi: heads of Athena and a giant (see Radt 1988, 261); rotunda: paving and wall revetment (incl. blue-violet and yellow Phrygian marbles, see Wiegand 1932, 13-4; vs. Ziegenaus 1981, 45 and 65), marble statue base in the E niche; dome and E niche: mosaics (glass, gilded glass, and stone, see Ziegenaus 1981, 66; the gold-ground mosaics are probably Christian, cf. Wiegand 1932, 12, and Ward-Perkins 1989, 120)

Excavations: T. Wiegand in 1930


Text: 172-4.
## Actual Measurements

<table>
<thead>
<tr>
<th></th>
<th>Meters</th>
<th>Roman Feet</th>
<th>Roman Feet</th>
<th>% Difference</th>
<th>Critical Dimension *</th>
<th>Proportional Relationships within Columnar Order **</th>
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<tbody>
<tr>
<td><strong>Cella ext.</strong></td>
<td>23.85</td>
<td>80.57</td>
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<td><strong>Cella int.</strong></td>
<td>25.53</td>
<td>86.25</td>
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<tr>
<td><strong>Porch len.</strong></td>
<td>10.4</td>
<td>35.1</td>
<td>35</td>
<td>-0.3%</td>
<td>9/20</td>
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<tr>
<td><strong>Porch wid.</strong></td>
<td>14.5</td>
<td>49</td>
<td></td>
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<tr>
<td><strong>Porch hei.</strong></td>
<td>11.8</td>
<td>39.9</td>
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</tr>
<tr>
<td><strong>Intermediate block len.</strong> (incl. 2 stairs)</td>
<td>7.6</td>
<td>25.7</td>
<td>25</td>
<td>-2.7%</td>
<td>1/4</td>
<td></td>
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<tr>
<td><strong>Intermediate block wid.</strong></td>
<td>16</td>
<td>54.1</td>
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</tr>
<tr>
<td><strong>Intermediate block hei.</strong></td>
<td>15.25</td>
<td>51.5</td>
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<tr>
<td><strong>Coffers (smaller) (square measure)</strong></td>
<td>0.564</td>
<td>18.44</td>
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<tr>
<td><strong>Coffers (larger) (square measure)</strong></td>
<td>0.68</td>
<td>7.77</td>
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<tr>
<td><strong>Stair tower dep.</strong></td>
<td>4.92</td>
<td>16.62</td>
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</tr>
<tr>
<td><strong>Stair tower wid.</strong></td>
<td>5.28</td>
<td>17.84</td>
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<tr>
<td><strong>Stair tower door wid.</strong></td>
<td>1.05</td>
<td>3.55</td>
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<tr>
<td><strong>Stair treads (porch)</strong></td>
<td>0.8</td>
<td>2.7</td>
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<tr>
<td><strong>Stair risers</strong></td>
<td>0.5</td>
<td>1.7</td>
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<tr>
<td><strong>Stair treads (intermediate block)</strong></td>
<td>1</td>
<td>3.4</td>
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<tr>
<td><strong>Stair risers</strong></td>
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<td>1.52</td>
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<tr>
<td><strong>Platform under rotunda wid.</strong></td>
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<td>100.7</td>
<td>100</td>
<td>-0.7%</td>
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<td>30.5</td>
<td>103</td>
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<tr>
<td><strong>Platform under rotunda hei.</strong></td>
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<td>8.4</td>
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<tr>
<td><strong>Cella wall wid.</strong></td>
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<td>11.32</td>
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<tr>
<td><strong>Exedrae dep. (rectangular)</strong></td>
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<td>7.1</td>
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<td>15.5</td>
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<td><strong>Exedrae dep. (semicircular)</strong></td>
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<td><strong>Door wid.</strong></td>
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<td>12.16</td>
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<tr>
<td><strong>Lower column dia. (porch column)</strong> **</td>
<td>0.678</td>
<td>2.29</td>
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<tr>
<td><strong>Shaft hei.</strong></td>
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<td>20</td>
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<tr>
<td><strong>Intercolumnation</strong></td>
<td>3.62</td>
<td>12.23</td>
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<tr>
<td><strong>Interaxial (corner columns)</strong></td>
<td>10.7</td>
<td>36.15</td>
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<tr>
<td><strong>Total hei. (intermediate block pilasters)</strong></td>
<td>7.2</td>
<td>24.3</td>
<td>25</td>
<td>2.9%</td>
<td>1/4</td>
<td>10/27</td>
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<tr>
<td><strong>Base hei.</strong></td>
<td>0.456</td>
<td>1.54</td>
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<tr>
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<td>2.36</td>
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<tr>
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<td>20</td>
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<tr>
<td><strong>Capital hei.</strong></td>
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<td>2.7</td>
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<td><strong>Entablature hei. (porch)</strong></td>
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<tr>
<td><strong>Architrave hei.</strong></td>
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<td>0.84</td>
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<td>1.4</td>
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<tr>
<td><strong>Corinice wid.</strong></td>
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<td>1.52</td>
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<tr>
<td><strong>Corinice hei.</strong></td>
<td>0.45</td>
<td>1.52</td>
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<tr>
<td><strong>Entablature hei. (int.)</strong></td>
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<td>4.67</td>
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<td><strong>Corinice wid. (intermediate block)</strong></td>
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<td><strong>Corinice hei.</strong></td>
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<td>1.15</td>
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<tr>
<td><strong>Corinice wid. (drum)</strong></td>
<td>0.9</td>
<td>3</td>
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<tr>
<td><strong>Corinice hei.</strong></td>
<td>0.9</td>
<td>3</td>
<td></td>
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<tr>
<td><strong>Floor space (drum) (square measure)</strong></td>
<td>446.8</td>
<td>1598.4</td>
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## Reconstructed Measurements

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<tr>
<th></th>
<th>Meters</th>
<th>Roman Feet</th>
<th>Roman Feet</th>
<th>% Difference</th>
<th>Critical Dimension *</th>
<th>Proportional Relationships within Columnar Order **</th>
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<tbody>
<tr>
<td><strong>Stair tower door hei.</strong></td>
<td>20</td>
<td>67.57</td>
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<td><strong>Door hei.</strong></td>
<td>6.2</td>
<td>20.95</td>
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<tr>
<td><strong>Total hei.</strong> (porch and intermediate block)</td>
<td>6.4</td>
<td>21.6</td>
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<tr>
<td><strong>Base dia.</strong></td>
<td>0.9</td>
<td>3</td>
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<tr>
<td><strong>Base hei.</strong></td>
<td>0.57</td>
<td>1.93</td>
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<tr>
<td><strong>Capital dia.</strong></td>
<td>1.1</td>
<td>3.7</td>
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<tr>
<td><strong>Accotera wid. (porch)</strong></td>
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<td>3</td>
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<tr>
<td><strong>Accotera hei.</strong></td>
<td>1.4</td>
<td>4.7</td>
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<tr>
<td><strong>Accotera wid.</strong> (intermediate block)</td>
<td>1.4</td>
<td>4.7</td>
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<tr>
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<td>1.6</td>
<td>5.4</td>
<td></td>
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<td><strong>Roof wid. (porch)</strong></td>
<td>11.4</td>
<td>38.5</td>
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<td>7.8</td>
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<td><strong>Roof wid.</strong> (intermediary block)</td>
<td>15.6</td>
<td>52.7</td>
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<td>3</td>
<td>10.1</td>
<td>10</td>
<td>-1.0%</td>
<td>1/10</td>
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<tr>
<td><strong>Roof dia.</strong> (drum)</td>
<td>29.4</td>
<td>99.3</td>
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<td><strong>Roof hei.</strong></td>
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<td><strong>Oculus dia.</strong></td>
<td>4.7</td>
<td>15.88</td>
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<td><strong>Volume (drum) (cubic measure)</strong></td>
<td>1295.5</td>
<td>37823.4</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Note:**
- *critical dimension*
- **in relation to the lower column dia.

**Source:** Ziegenaus 1981, 30-75 pls. 9-24.
#27 PERGAMON:
Zeus Asklepios Soter, temple
Scale 1:200
#28 POMPEII: Monopteros

**Context:** Foro Triangolare, sited in front of the Doric temple (6th c. BC, NW) and beside the forum perimeter wall; orientation unknown

**Date:** late Republic (and earlier?); inscription (see ‘Literary and epigraphical sources:

Inscription from Remains’ below)

**Patron:** Numerius Trebius, a *meddix tuticus*

**Description:** round monopteros (3.582 m. in dia., tufa) sited above a well with 8 Doric columns and an inscribed Doric entablature

**Remains:** part of the well, columns and entablature (tufa)

**Literary and epigraphical sources:**

Inscription from ‘Remains’: *Nif(umsis) Trebiis Tr(ebieis) med(diss) tιυ(tis) aamanaffed,* translated as “Numerius Trebius, son of Trebius, public *meddix,* promoted the construction (of this building)” (inscribed architrave; see La Rocca et al. 1994, 150-1)


**Text:** 41.
### POMPEII: Monopteros

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>ideal measurements</th>
<th>ideal proportional relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>meters</td>
<td>roman feet</td>
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<tr>
<td>Monopteros ext. *</td>
<td>3.582</td>
<td>12.1</td>
</tr>
<tr>
<td>Hei. to roof</td>
<td>3.578</td>
<td>12.1</td>
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<tr>
<td>Well wid.</td>
<td>1.06</td>
<td>3.58</td>
</tr>
<tr>
<td>Well hei.</td>
<td>0.76</td>
<td>2.6</td>
</tr>
<tr>
<td>Total hei. (columns)</td>
<td>2.794</td>
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</tr>
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<td>Lower column dia. **</td>
<td>0.44</td>
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<td>2.684</td>
<td>9.07</td>
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<td>1.71</td>
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<tr>
<td>Capital hei.</td>
<td>0.11</td>
<td>0.37</td>
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<tr>
<td>Intercolumnnuation</td>
<td>0.815</td>
<td>2.75</td>
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<tr>
<td>Interaxial</td>
<td>1.255</td>
<td>4.24</td>
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<td>Interaxial dia.</td>
<td>3.2</td>
<td>10.8</td>
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<tr>
<td>Entablature hei. (ext.)</td>
<td>0.527</td>
<td>1.78</td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.527</td>
<td>1.78</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>5.7</td>
<td>65.3</td>
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<tr>
<td>Volume (cubic measure)</td>
<td>20.5</td>
<td>790.4</td>
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</tbody>
</table>

**Note:**

- * critical dimension
- ** in relation to the lower column dia.

**Source:** LaRocca and de Vos 1994, 150-1 fig. 7
#28 POMPEII:
Monopteros
Scale 1:50
Context: NE corner of Trajan's harbor
Date: under Commodus: *CIL* XIV 30 and 666 (inscriptions, see 'Literary and epigraphical sources: Inscriptions from Remains' below)
Patron: Iunia Marciana (see 'Literary and epigraphical sources: Inscriptions from Remains' below)
Description: round peripteros (marble?) rising from a high podium
Remains: part of the podium?, cella wall?, columns? (Attic bases and Corinthian capitals), and inscribed entablature (marble; for the entablature, see 'Literary and epigraphical sources: Inscriptions from Remains' below); a related inscription (see 'Literary and epigraphical sources: Inscriptions from Remains' below) was found nearby
Literary and epigraphical sources:
   Inscriptions from 'Remains': *CIL* XIV 666: AVR.RVTILIVS, CAECILIA[NVS] (entablature, see Lanciani 1868a, 181). *CIL* XIV 30: PRO.SALVTE.[IMP]/M.AVREL. COMMODI / ANTONINI.AVG / PI. FELICIS / LIBER.O.PATRI / COMMODOANO / SACRVM / IVNIA.MARCIANE / EX.VOTO.FECIT (inscription found nearby, see Lanci 1864, 81-2).
Iconographic sources: Torlonia harbor relief (see Meiggs 1973, 165)
Text: 183-4.
#30 PRAENESTE: Fortuna Primigenia, Shrine

**Context:** Terrace of the Hemicycles, upper Sanctuary of Fortuna Primigenia; in front of the E exedra

**Date:**
I. Republic (tied with Praeneste’s foundation, see text and Coarelli 1993a, 20): well revetment
II. 110-100 BC: stylistic analysis of capitals from the Shrine and the Hemicycles and of the cult images of the Shrine and the Temple of Fortuna Primigenia (see #31); materials and techniques employed in the cement vaults of the upper Sanctuary

**Patron:**
I. unknown
II. local merchants and magistrates

**Description:**
I. round on a well
II. round monopteros (3.3 m. in dia., marble) on a well with 7 Corinthian columns, a Doric frieze, and a conical roof; a stone transenna topped by metal grillwork filled out the intercolumniations

**Remains:**
I. well revetment (tufa opus quadratum)
II. most of the foundations, the well (revetted with tufa opus incertum), and the superstructure (marble); additional remains incl. fragments of a statue, a large circular altar, a base with a Doric frieze, and 2 fountains or lustral basins (marble?)

**Literary and epigraphical sources:**
- Decorative program: Cic. div. 2.85 (cult statue of Fortuna Primigenia with Jupiter and Juno).

**Decoration:** cult statue; Doric base and circular altar (see ‘Remains’ above)

**Excavations:** F. Fasolo and G. Gullini in the late 1940s (after the Sanctuary was exposed by bombing in World War II)


**Text:** 57-60.
### PRAENESTE: Fortuna Primigenia, shrine

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>meters</th>
<th>roman feet</th>
<th>ideal roman feet</th>
<th>% difference</th>
<th>critical dimension *</th>
<th>within columnar order **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monopteros ext. *</td>
<td>3.3</td>
<td>11.1</td>
<td>11.0</td>
<td>-0.9%</td>
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<tr>
<td>Total hei. (monopteros)</td>
<td>5.48</td>
<td>18.51</td>
<td>18.5</td>
<td>-0.1%</td>
<td>1 2/3</td>
<td></td>
</tr>
<tr>
<td>Hei. to roof</td>
<td>4.23</td>
<td>14.29</td>
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<td></td>
<td>1 3/10</td>
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</tr>
<tr>
<td>Well dep.</td>
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<td></td>
<td>8/9</td>
<td></td>
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<tr>
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<td>1.41</td>
<td>4.76</td>
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<td>3/7</td>
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<td>0.68</td>
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<tr>
<td>Podium cornice hei.</td>
<td>0.22</td>
<td>0.74</td>
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<td>1/15</td>
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<tr>
<td>Podium cornice wid. (upper)</td>
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<td>0.74</td>
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<td>1/15</td>
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<td>0.91</td>
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<td>1/13</td>
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<td>-1.0%</td>
<td>5/8</td>
<td>8 1/3</td>
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<td>0.2</td>
<td>0.68</td>
<td></td>
<td></td>
<td>1/16</td>
<td>4/5</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.27</td>
<td>0.91</td>
<td></td>
<td></td>
<td>1/12</td>
<td>1/12</td>
</tr>
<tr>
<td>Intercolunnation</td>
<td>0.73</td>
<td>2.47</td>
<td></td>
<td></td>
<td>2/9</td>
<td>3</td>
</tr>
<tr>
<td>Interaxial</td>
<td>1.0</td>
<td>3.38</td>
<td>3.3</td>
<td>-2.4%</td>
<td>3/10</td>
<td>4</td>
</tr>
<tr>
<td>Interaxial dia.</td>
<td>2.16</td>
<td>7.3</td>
<td></td>
<td></td>
<td>2/3</td>
<td>8 2/3</td>
</tr>
<tr>
<td>Entablature hei. (ext.)</td>
<td>0.45</td>
<td>1.52</td>
<td>1.55</td>
<td>2.0%</td>
<td>1/7</td>
<td></td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.075</td>
<td>0.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.12</td>
<td>0.41</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Dentil hei.</td>
<td>0.035</td>
<td>0.12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>0.3</td>
<td>1</td>
<td></td>
<td></td>
<td>1/11</td>
<td></td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.22</td>
<td>0.74</td>
<td></td>
<td></td>
<td>1/15</td>
<td></td>
</tr>
<tr>
<td>Roof dia.</td>
<td>2.98</td>
<td>10.07</td>
<td>10</td>
<td>-0.7%</td>
<td>10/11</td>
<td></td>
</tr>
<tr>
<td>Roof hei.</td>
<td>1.25</td>
<td>4.2</td>
<td></td>
<td></td>
<td>3/8</td>
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</tr>
<tr>
<td>Floor space (square measure)</td>
<td>1.81</td>
<td>20.43</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Volume (cubic measure)</td>
<td>5.9</td>
<td>175.6</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Note:**  
* critical dimension  
** in relation to the lower column dia.

**Source:** Fasolo and Giuliani 1953, ??
#30 PRAENESTE:
Fortuna Primigenia, shrine
Scale 1:25
Context: summit, upper Sanctuary of Fortuna Primigenia; behind a large hemicycle

Date: 110-100 BC: stylistic analysis of capitals from the Shrine of Fortuna Primigenia (#30) and the Terrace of the Hemicycles and of the cult images of the Temple and the Shrine of Fortuna Primigenia; materials and techniques employed in the cement vaults of the upper Sanctuary

Patron: local merchants and magistrates

Description: drum (12.2 m. in dia., opus incertum) topped by a cupola; accessed by stairs or ramps (see text)

Remains: 2 concentric walls (opus incertum); a statue of Isis-Tyche was found nearby (see text)

Literary and epigraphical sources:

Description: Medieval chronicle recording the Temple’s destruction under Boniface VIII in 1298: Palatium autem Caesaris aedificatum ad modum unius C propter primam litteram nominis sui, et templum palatio inhaerens opere sumptuosissime et nobilissime aedificatum ad modum S. Mariae Rotundae de urbe. (i.e. the Pantheon, Rome #50).

Decorative scheme: Plin. nat. 33.61 (bronze cult image). Cic. div. 2.41.85-7 (olive tree).

Iconographic sources: drawings by P. Ligorio and fra’ Giacomo (ca. 1515)

Decoration: grey-black marble statue of Isis-Tyche (see ‘Remains’ above); lithostrotum; bronze cult statue; olive tree (see ‘Literary and iconographic sources: Decorative scheme’ above)

Excavations: F. Fasolo and G. Gullini in the late 1940s (after the Sanctuary was exposed by bombing in World War II)


Text: 57-60.
### PRAENESTE: Fortuna Primigenia, temple

#### actual measurements

<table>
<thead>
<tr>
<th></th>
<th>meters</th>
<th>roman feet</th>
<th>roman feet</th>
<th>difference</th>
<th>%</th>
<th>ideal proportional relationships</th>
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<tr>
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<td>15</td>
<td>51</td>
<td></td>
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<td>1</td>
<td></td>
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<tr>
<td>Cella ext.</td>
<td>12.2</td>
<td>41.2</td>
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<td>4/5</td>
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<tr>
<td>Cella int.</td>
<td>8</td>
<td>27</td>
<td>27.2</td>
<td>0.7%</td>
<td>8/15</td>
<td></td>
</tr>
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</table>

#### reconstructed measurements

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Total hei.</td>
<td>10.3</td>
<td>34.8</td>
<td>34</td>
<td>-2.3%</td>
<td>2/3</td>
<td></td>
</tr>
<tr>
<td>Stair treads</td>
<td>0.15</td>
<td>0.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stair risers</td>
<td>0.18</td>
<td>0.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stairway len.</td>
<td>4.3</td>
<td>14.5</td>
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<td></td>
<td>2/7</td>
<td></td>
</tr>
<tr>
<td>Stairway wid.</td>
<td>0.9</td>
<td>3</td>
<td></td>
<td></td>
<td>1/17</td>
<td></td>
</tr>
<tr>
<td>Hei. above hemicycle</td>
<td>3.8</td>
<td>12.8</td>
<td></td>
<td></td>
<td>1/4</td>
<td></td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>2.1</td>
<td>7.1</td>
<td></td>
<td></td>
<td>1/7</td>
<td></td>
</tr>
<tr>
<td>Door wid.</td>
<td>1.4</td>
<td>4.7</td>
<td></td>
<td></td>
<td>1/11</td>
<td></td>
</tr>
<tr>
<td>Door hei. (at base of stairs)</td>
<td>7.2</td>
<td>24.3</td>
<td>25</td>
<td>2.9%</td>
<td>1/2</td>
<td></td>
</tr>
<tr>
<td>Door hei. (at top of stairs)</td>
<td>4.1</td>
<td>13.9</td>
<td>3/11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roof dia.</td>
<td>8</td>
<td>27</td>
<td></td>
<td></td>
<td>9/17</td>
<td></td>
</tr>
<tr>
<td>Roof hei.</td>
<td>4.15</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oculus dia.</td>
<td>2.1</td>
<td>7.1</td>
<td></td>
<td></td>
<td>1/7</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
* critical dimension
** in relation to the lower column dia.

**Source:** Coarelli 1987, ???
Rakob 1990, ???
#31 PRAENESTE:
Fortuna Primigenia, temple
Scale 1:100
#32 ROME: Bacchus, Shrine

Context: summa Sacra via (Regio VIII), located near the Tholus of Cybele (#34)

Date:
I. late Republic: Mart. epigr. 1.70.9-10 (see ‘Literary and epigraphical sources: Inscriptions from Remains’ below)
II. Antonine period (143-161 AD): CIL VI 36920 (dedicatory inscription, see ‘Literary and epigraphical sources: Inscriptions from Remains’ below)

Description:
I. unknown
II. round monopteros? (3.86 m. in dia., marble)

Patron:
I. unknown
II. Antoninus Pius

Remains:
I. none
II. entablature (marble, see ‘Remains’ below)

Literary and epigraphical sources:
Inscriptions from ‘Remains’:
II. CIL VI 36920: [...]TONINVS / [...]IMP.II / [...]ESTITVIT, reconstructed as [Libero patri Imp(erator) Caesar Antoninus Aug(ustus), pont(ifex) max(imus) trib(unicia) pot(estate) [...]/ IMP(erator) II [consul p(ater) p(atriae) r]estituit (dedicatory inscription, entablature).

Location and date: Mart. epigr. 1.70.9-10: hac qua madidi sunt tecta Lyaei / et Cybeles picto stat Corybante tholus.

Excavations: G. Gatti in 1899

Previous attributions: Bruhl (1953, 198) attributed the round shrine to Bacchus and a painted ceiling to Cybele, while, based on coins of Antoninus Pius (Gnecci 1912, 22, Brown 1941, 19, and see Chap. VI #41), Coarelli (1982, 35; cf. Lugli 1946, 176) identified Bacchus’ Shrine with an exedra near the Medieval porch on the summa Sacra via.


<table>
<thead>
<tr>
<th><strong>ROME: Bacchus, shrine</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>actual measurements</strong></td>
<td><strong>meters</strong></td>
<td><strong>roman feet</strong></td>
<td><strong>roman feet</strong></td>
<td><strong>% difference</strong></td>
</tr>
<tr>
<td>Total ext. *</td>
<td>3.86</td>
<td>13.04</td>
<td>13.0</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.33</td>
<td>1.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prieze hei.</td>
<td>0.25</td>
<td>0.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floor space (square measure)</td>
<td>11.7</td>
<td>133.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**  *critical dimension*

**Source:** Boni 1899, 265-6  
#32 ROME:
Bacchus, shrine
Scale 1:50
#33 ROME: Camenae, Shrine

**Context:**
I. 7th c. BC: near the Temple of Honos et Virtus and the Porta Capena (Regio I)
II. 187 BC: Campus Martius (Regio IX), in front of the Temple of Hercules and the Muses (#42)

**Date:**
I. 7th c. BC: ancient sources (see ‘Literary and epigraphical sources’ below)
II. 187 BC: ancient sources and the Severan Marble Plan (see ‘Iconographic sources’ below)

**Patron:**
I. Numa
II. moved and restored? by M. Fulvius Nobilior (see text)

**Description:**
I. drum? (bronze)
II as I.

**Literary and epigraphical sources:**
- **Foundation:** Serv. *Aen.* 1.8; Liv. 1.2; Plut. *Numa* 4 (Numa as the Shrine’s founder).
- **Location:**
  I. Liv. 29.11.13 (beside the Temple of Honos).
  II. Serv. *Aen.* 1.8 (incorporated into the Temple of Hercules and the Muses, #42).

**Iconographic sources:**
II. Severan Marble plan (fr. 31)

**Bibliography:** See #42. Jordan and Hülsen 1907, 206-8. Frothingham 1914, 309. Platner and Ashby 1929, 89.

**Text:** 18-9 and 41-5.
ROME: Camenae, shrine

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>ideal meters</th>
<th>ideal roman feet</th>
<th>ideal roman feet</th>
<th>difference</th>
<th>ideal proportional relationships</th>
</tr>
</thead>
<tbody>
<tr>
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<td>27.0</td>
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<td>1</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>50.3</td>
<td>572.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note:  * critical dimension

Source: Severan Marble Plan fr. 31.
#33 ROME:
Camenae, shrine
Scale 1:100
#34 ROME: Cybele, Tholus

**Context:** summa Sacra via (Regio VIII), located near the Shrine of Bacchus (#32) and possibly beside the SW corner of the Basilica of Maxentius-Constantine (ca. 4th c. AD)

**Date:**
I. late Republic: Cass. Dio 46.33.3 (see 'Literary and epigraphical sources: Location and date' below)
II. Domitianic period: Mart. epigr. 1.70.9-10 (see 'Literary and epigraphical sources: Location and date' below), coins (see 'Iconographic sources' below), the reliefs (see 'Remains' below), and the building materials and techniques employed in the foundations (see text)

**Description:**
I. unknown
II. round drum or monopterus? (see text)

**Patron:**
I. P. Cornelius Scipio Corculum? (see text)
II. Domitian? (see text)

**Remains:**
I. none
II. 2 terracotta reliefs (see 'Decoration' below) and foundations? (2.5 m. in dia., brick-faced concrete)

**Literary and epigraphical sources:**

**Location and date:**
I. Cass. Dio 46.33.3.
II. Mart. epigr. 1.70.9-10: hae qua madidi sunt tecta lyaei / et Cybeles picto stat Corybante tholus.

**Decorative scheme:**
I. Cass. Dio 46.33.3 (statue of Cybele).
II. Mart. epigr. 1.70.9-10 (paintings, see 'Literary and epigraphical sources: Location and date' above).

**Iconographic sources:**
II. Kühnmann and Overbeck 1973a, 41-2 no. 77 (Domitian’s coin)

**Decoration:** statue of Cybele and paintings of the Corybantes (see 'Literary and epigraphical sources: Decorative scheme' above); terracotta reliefs illustrating the goddess, enthroned and flanked by two lions, aboard a boat (see text and Dohrn 1966, 820 no. 2046)

**Excavations:**
II. G. Gatti in the 1890s

**Previous attributions:** Temple illustrated on coins of Faustina the Younger (Kühnmann and Overbeck 1973a, 7-8 no. 44, and Vermaseren 1977, 37; vs. Eadaile 1908, 368-74, and Richardson, jr. 1992, 243, who link them with the Palatine Temple of Magna Mater); Cybele shown on the Haterii relief (Vaglieri 1903, 28, Jordan and Hülsen 1907, 103-4, Eadaile 1908, 369, Graillot 1912, 334, Platon and Ashby 1929, 325, and Lugli 1946, 219, and 1947, 177-8; vs. Blake 1959, 8, and Richardson, jr. 1992, 243, who see Cybele as a personification of the Palatine temple).


**Text:** 63-5 and 155-6.
# ROME: Cybele, tholus

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>ideal</th>
<th>% difference</th>
<th>ideal proportional relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>meters</td>
<td>roman feet</td>
<td></td>
</tr>
<tr>
<td>Total ext. *</td>
<td>2.5</td>
<td>8.4</td>
<td>1</td>
</tr>
<tr>
<td>Foundation dia.</td>
<td>2.5</td>
<td>8.4</td>
<td></td>
</tr>
<tr>
<td>Floor space (square measure)</td>
<td>4.9</td>
<td>55.4</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** *critical dimension

**Source:** Gatti 1899, ???
#34 ROME:
Cybele, theius
Scale 1:50
#35 ROME: Dea Dia, Temple

**Context:** Sanctuary of Dea Dia (6th c. BC-Severan period, see text), 5th milestone of the via Campana-Portuensis; sited in a *lucus* at the summit and oriented towards the *Tetrastylum-Caesareum, papillones, and balneum* at the base (S)

**Date:** under Alexander Severus: building materials and techniques (see text and Lanciani 1868c, 106)

**Patron:** Fratres Arvales

**Description:** drum (21.1 m. in dia., revetted in marble) with a sloping roof, ringed by
- Corinthian pilasters and a Corinthian entablature (3-fascia architrave, blank frieze course, and an elaborate modillion cornice) on its exterior, and Corinthian pilasters and 15 niches in its interior (see text and Lanciani 1868c, 105-6); rests on foundations comprising an annular gallery, 2 straight galleries and 11 niches

**Remains:** most of the foundations (brick and travertine, see text and Lanciani 1868c, 105), and fragments of the cella wall, pilasters (shafts and volutes of the Corinthian capitals), entablature (architrave, frieze, and cornice), roof tiles, and antefixes (marble); rests on a terrace (mortar and basalt on a pebble base, with 2 boundary walls of *opus latericium*, Augustan?, see Scheid 1990, 143, and Adam 1994a, 146-7) together with a round altar (travertine)

**Literary and epigraphical sources:**

- **Location:** Strab. 5.3 (quoted by Pellegrini 1865, 3; cf. text and Scheid 1976, 639-47, and 1990, 96-101).
- **Patron:** Plin. nat. 18.6, Gell. 7 [6].7, and Varro 1.1.5 (foundation of the Fratres Arvales).
- **Decorative scheme:** *CIL VI* 2104a 1.25 (altar). *CIL VI* 2104a 1.31 and 2067 1.5 (2 statues). *CIL VI* 2104a 1.30 and 2067 1.2 (12 marble seats).
- **Iconographic sources:** plan by P. Ligorio (*Arch. Cort. Tor.* XVIII 64, incl. a description of the Temple: "Lo qual tempio fu rotondo, secondo la mostrata pianta. Dove attorno e dentro li nicchi et diffuori fra essi attorno le parieti erano le imagini togate et col capo velato coronate di spiche di grano dell’imperatori romani et delle moglieri entrate nel saccodotio, ove havevano sacrificato et purgati gli augurj dei portenti accaduti, et le quasi statute erano alte dieci palmi. e vi erano di quelle piccioline dell’altr huomini illustri, et cominciavano da Romolo: di marmo con i suoi epitaphii, corre avemo posto in questo luogo copiato di coloro, i quali havemo veduto quivi dedicati..."; cf. De Rossi 1858, 57-8, Henzen 1868, x-xxi, Lanciani 1868c, 105), and possibly a drawing by Peruzzi or Sangallo (see Abeken 1841, 121)
- **Decoration:** the Annals inscribed on plaques displayed in the *lucus* (see text)
- **Previous attributions:** Visconti (quoted by Lanciani 1868c, 106) identifies the round building as a tomb, while Pellegrini (1865, 5 and 10) sees it as the Caesareum. Henzen (1868, x-xxi; see ‘Iconographic sources’ above) notes that the statues of Roman emperors mentioned by Ligorio are more likely to have been located in the Tetrastylum.
- **Excavations:** T. Mommesen and P. Cecereelli in the 1860s, J. Scheid and H. Broise in the 1970s and 1980s

**Text:** 219-24.
<table>
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<tr>
<th>Actual Measurements</th>
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<th>Ideal Proportional Relationships</th>
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<tbody>
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<td>meters</td>
<td>roman feet</td>
</tr>
<tr>
<td>Cella ext.</td>
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<td>71.3</td>
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<tr>
<td>Foundation dia.</td>
<td>22</td>
<td>74</td>
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<tr>
<td>Annular gallery wid.</td>
<td>2.57</td>
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<tr>
<td>Straight gallery wid.</td>
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</tr>
<tr>
<td>Niches wid. (wide)</td>
<td>2.37</td>
<td>8</td>
</tr>
<tr>
<td>Niches dep.</td>
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<td>5.1</td>
</tr>
<tr>
<td>Niches wid. (narrow)</td>
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<td>7.5</td>
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<tr>
<td>Niches dep.</td>
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<tr>
<td>Podium dia. at base</td>
<td>22.4</td>
<td>75.7</td>
</tr>
<tr>
<td>Podium dia. at stylobate *</td>
<td>21.1</td>
<td>71.3</td>
</tr>
<tr>
<td>Podium hei.</td>
<td>3.6</td>
<td>12.2</td>
</tr>
<tr>
<td>Cella wall wid. (w/o ext. pilasters)</td>
<td>2.4</td>
<td>8.1</td>
</tr>
<tr>
<td>Shaft dep. (ext. pilasters)</td>
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<td>0.6</td>
</tr>
<tr>
<td>Lower pilaster wid. **</td>
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</tr>
<tr>
<td>Capital wid.</td>
<td>0.94</td>
<td>3.2</td>
</tr>
<tr>
<td>Entrablature hei. (ext.)</td>
<td>1.89</td>
<td>6.4</td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.57</td>
<td>1.93</td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.57</td>
<td>1.93</td>
</tr>
<tr>
<td>Cornice wid.</td>
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<td>2.23</td>
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<tr>
<td>Cornice hei.</td>
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<tr>
<td>Floor space (square measure)</td>
<td>208.7</td>
<td>2364.5</td>
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<table>
<thead>
<tr>
<th>Reconstructed Measurements</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
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<td>meters</td>
<td>roman feet</td>
</tr>
<tr>
<td>Cella int.</td>
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<td>54.7</td>
</tr>
<tr>
<td>Total hei.</td>
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</tr>
<tr>
<td>Stair treads</td>
<td>0.18</td>
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</tr>
<tr>
<td>Stair risers</td>
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<td>0.88</td>
</tr>
<tr>
<td>Stairway len.</td>
<td>3.4</td>
<td>11.5</td>
</tr>
<tr>
<td>Stairway wid.</td>
<td>3.6</td>
<td>12.2</td>
</tr>
<tr>
<td>Podium cornice wid. (lower)</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Podium cornice hei.</td>
<td>1</td>
<td>3.4</td>
</tr>
<tr>
<td>Podium cornice wid. (upper)</td>
<td>0.3</td>
<td>1</td>
</tr>
<tr>
<td>Podium cornice hei.</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Exedrae dep. (rectangular)</td>
<td>1.3</td>
<td>4.4</td>
</tr>
<tr>
<td>Exedrae wid.</td>
<td>2</td>
<td>6.8</td>
</tr>
<tr>
<td>Exedrae dep. (semicircular)</td>
<td>1.2</td>
<td>4.1</td>
</tr>
<tr>
<td>Exedrae wid.</td>
<td>1.9</td>
<td>6.3</td>
</tr>
<tr>
<td>Door wid.</td>
<td>2.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Door hei.</td>
<td>4.6</td>
<td>15.5</td>
</tr>
<tr>
<td>Door jamb</td>
<td>0.6</td>
<td>2</td>
</tr>
<tr>
<td>Door lintel</td>
<td>1.3</td>
<td>4.4</td>
</tr>
<tr>
<td>Total hei. (ext. pilasters)</td>
<td>8.6</td>
<td>29.1</td>
</tr>
<tr>
<td>Base wid.</td>
<td>0.76</td>
<td>2.6</td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.76</td>
<td>2.6</td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>6.9</td>
<td>23.3</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.94</td>
<td>3.2</td>
</tr>
<tr>
<td>Intercolumnation</td>
<td>2.3</td>
<td>7.8</td>
</tr>
<tr>
<td>Interaxial</td>
<td>3.1</td>
<td>10.4</td>
</tr>
<tr>
<td>Shaft dep. (int. pilasters)</td>
<td>0.2</td>
<td>0.68</td>
</tr>
<tr>
<td>Lower pilaster wid. **</td>
<td>0.65</td>
<td>2.2</td>
</tr>
<tr>
<td>Intercolumnation</td>
<td>2.3</td>
<td>7.8</td>
</tr>
<tr>
<td>Interaxial</td>
<td>2.95</td>
<td>10.0</td>
</tr>
<tr>
<td>Roof dia.</td>
<td>15.8</td>
<td>33.3</td>
</tr>
<tr>
<td>Roof hei.</td>
<td>2.9</td>
<td>9.9</td>
</tr>
<tr>
<td>Finial wid.</td>
<td>0.9</td>
<td>7</td>
</tr>
<tr>
<td>Finial hei.</td>
<td>1.1</td>
<td>3.2</td>
</tr>
<tr>
<td>Volume (cubic measure)</td>
<td>259.8</td>
<td>4416.7</td>
</tr>
</tbody>
</table>

Note: * critical dimension
** in relation to the lower column dia.

Source: Lanciani 1868c, 105-7 pls 4-5.
Chart #35. ROME: Dea Dia, temple

Critical dimension = Podium dia. at stylobate
#35 ROME:
Dea Dia, temple
Scale 1:200
Context: 1st milestone of the via Campana-Portuensis
Date: 6th c. BC; patron, building and votive remains
Patron: Servius Tullius
Description: round? on a rectangular platform (see text)
Remains: rectangular platform; a votive deposit with Archaic bronze statuettes was found nearby

Literary and epigraphical sources:
- Attribution: Cic. fin. 5.70, and Ov. fast. 6.773-86 (dies natalis of both Temples).
- Patron: Plut. Rom. 74 and fort. Rom. 10 (Servius Tullius' role in the Temples' foundation).

Iconographic sources: Severan Marble Plan (fr. 28; see Coarelli 1992b, 39)
Previous attributions: Visconti, Lanciani 1(884, 28) and Gatti (1904, 319-20) identify it with a hexastyle temple found in the gardens of Caesar.


Text: 19-20.
### ROME: Fors Fortuna, temple

<table>
<thead>
<tr>
<th>Actual Measurements</th>
<th>Ideal Meters</th>
<th>Roman Feet</th>
<th>Roman Feet</th>
<th>Difference</th>
<th>Ideal Proportional Relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cella ext.</td>
<td>26.0</td>
<td>88.0</td>
<td></td>
<td></td>
<td>4/5</td>
</tr>
<tr>
<td>Porch len.</td>
<td>19.6</td>
<td>66.2</td>
<td></td>
<td></td>
<td>3/5</td>
</tr>
<tr>
<td>Porch wid.</td>
<td>4.9</td>
<td>16.6</td>
<td></td>
<td></td>
<td>3/20</td>
</tr>
<tr>
<td>Socle len. *</td>
<td>33.0</td>
<td>111.0</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Socle wid.</td>
<td>28.0</td>
<td>95.0</td>
<td></td>
<td></td>
<td>6/7</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>530.9</td>
<td>6082.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * critical dimension

#36 ROME:
Fors Fortuna, temple
Scale 1:200
Context: in the Horti Luculliani/Aciarium (see text, and for the Horti’s extent, see Broise and Jolivet 1996a, 67-8), Pincio (Regio VII); the Temple was sited above a large nymphaeum (see text)

Date:
I. Archaic or Republican period: building materials and techniques, and the inscription (CIL VI 184)
II. Claudian period: building materials and techniques
III. 4th c. AD: building materials and techniques, and the Regionary Catalogues (see ‘Literary and epigraphical sources: Location’ below)

Patron:
I and III. unknown
II. Valerius Asiaticus

Description:
I. unknown
II. round?
III. drum (22 m. in dia., opus vittatum mixtum) with 7 rectangular niches (interior), 5 pilasters? (exterior), and a dome with an oculus, preceded by a rectangular porch? (see text)

Remains:
I. part of the columns (tufa shafts and Tuscan capitals), walls (tufa opus quadratum), and an inscription
II. two walls (tufa opus reticulatum)
III. the Temple’s foundations and cella walls (opus vittatum mixtum, restored in opus vittatum), wall revetment (black marble veined with white), and paving (white marble)

Literary and epigraphical sources:
Inscription from ‘Remains’:
I. CIL VI 184: FORTVNAE BONAE SALVTARI.
Location:
II. Frontin. aq. 22.2 (locates gardens). CIL VI 1231c = 31537c and 37023 (CIIX) (Horti enclosed within the pomerium by Claudius, see Broise and Jolivet 1996a, 68).
III. Reg. Cat. 110, 172, 218 VZ 1 (tempia II nova Spei et Fortunae).
Patron:
II. Tac. ann. 11.1 and Cass. Dio 60[61].31 (Valerius Asiaticus’ building program in the Horti).

Iconographic sources: plans by Ligorio (ca. 1552-1564, Cod. Taur. XIV f. 128v-29r) and Bufalini (1551, see Broise and Jolivet 1996b, 455 fig. 41); maps by X. Paciotti (1557), M. Cantaro (1576), S. Du Pérac (1577), and A. Tempesta (1593, see Frutaz 1962, pls. 196, 228, 239, 255, and 264).

Decoration:
III. marble wall revetment and paving (see ‘Remains’ above)

Excavations: H. Broise and V. Jolivet in 1998


Text: 125-8 and 237.
<table>
<thead>
<tr>
<th>actual measurements</th>
<th>ideal measurements</th>
<th>ideal proportional relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>meters</td>
<td>roman feet</td>
</tr>
<tr>
<td>Cella ext. *</td>
<td>22</td>
<td>74</td>
</tr>
<tr>
<td>Foundation dia.</td>
<td>22</td>
<td>74</td>
</tr>
<tr>
<td>Niche dep.</td>
<td>0.84</td>
<td>2.84</td>
</tr>
<tr>
<td>Floor space (square measure)</td>
<td>380.1</td>
<td>4300.9</td>
</tr>
</tbody>
</table>

Note: * critical dimension

Source: Broise and Jolivet 1999, 266 and fig. ???
#37 ROME:
Fortuna, temple
Scale 1:200
#38 ROME: Fortuna Huiusce Diei, Temple

**Context:** Area Sacra di Largo Argentina, Campus Martius (Regio IX); enclosed within the Porticus Minucia Vetus (107 BC?, 40 m. wide by 62 m. long, see text), limited by the Porticus Pompeii (61-55 BC, W), and the porticus of the Via delle Botteghe Oscure (Imperial period, E); the Temple is flanked by the rectangular Temples A and C

**Date:**
I. late 2nd-early 1st c. BC: building materials and techniques, and the Temple's attribution (see text and 'Literary and epigraphical sources: Attribution' below)
II. mid-1st c. BC: ceramic remains in the Temple's podium fill (Coarelli 1981a, 21)
III. Domitianic period: building materials and techniques, and the Porticus' travertine pavement (see text)

**Patron:**
I. Q. Lutatius Catulus (see text)
II-III. unknown

**Description:**
I. round peripteros (22.9 m. in dia. with a cella of 11.8 m. in dia., tufa and travertine) with 18 columns (Attic-Asiatic bases, fluted shafts, Corinthian capitals) on ring foundations and a raised podium fronted by 6 steps
II. drum (22.9 m. in dia., tufa) on ring foundations and a raised podium fronted by 6 steps, flanked by statue bases
III. as II.

**Remains:**
I. most of the foundations and podium (core comprises 2 rings of Anian tufa and *opus incertum*, faced with tufa, see text), stairs (travertine-revetted tufa), stylobate (travertine), fragments of the cella wall (*opus quasi-rectilatum* of tufa), 6 columns (travertine bases and capitals, Anian tufa shafts), 1 block of the entablature? (Pentelic marble, see text), and some roof tiles (marble); a statue base is embedded in the inner ring of the foundations, while statue fragments were found beside the Temple (Pentelic marble, see text)
II. most of the podium facing and moldings (peperino) and fragments of the cella wall (tufa blocks with travertine revetment); 2 bases flanking the stairs (tufa, see text; vs. Coarelli 1981a, 20, who suggests that the bases and statue groups were prior to phase II; cf. 'Decoration' below)
III. fragments of the cella wall (brick-faced concrete and stucco) and possibly part of the mosaic pavement (white tesserae, see Coarelli 1981a, 21); the steps (travertine) and nearby altar and statue base (marble-revetted brickwork) may be somewhat later (see Gros 1996a, 270)

**Literary and epigraphical sources:**
- **Location:** fast. Pinc. = CIL 19, 217, 219 and 323, and Plin. nat. 34,54 and 60 (Temple of Fortuna Huiusce Diei in Campo). CIL VI 10223 (2 porticus Minuciae).
- **Date and foundation:**
- **Founder:**
- **Attribution:**
  I. see 'Literary and epigraphical sources: Location'. Varro rust. 3.5.9-12 (aedes Catuli, aviary). Cic. leg. 2.28 (Fortuna Huiusce Diei).
- **Decorative program:**
  II-III?. Cic. Verr. 2.4.4.126 and Plin. nat. 34,54 and 60; cf. Procop. bell. 1.15.11 (8 statues by Pythagoras of Samos, 3 statues by Phidias, and a stone replica of the Palladium brought by Diomedes from Troy).
Decoration:
I. colossal acrolith of Fortuna Huiusce Diei (see text); black and white floor mosaics; first style wall painting; lion protomes and palmette antefixes (see Coarelli 1981a, 19-20)
II-III?. statues (see ‘Literary and epigraphic sources: Decorative program’ above) on 2 oblong bases (6.66 m. long by 2.10 m. wide) placed on either side of the Temple’s stairs;
fragments of mosaic paving? (see ‘Remains’ above)

Excavations: G. Marchetti-Longhi in the 1930s; re-examined in the 1970s-80s in conjunction with the publication of Coarelli et al. 1981

Previous attributions: identified as the Temple of Venus in calcario (De Rossi 1893, 192), the Temple of Hercules Magnus Custos ad circm Flaminium (Lanciani 1946, 123; cf. Viscogliosi 1996b, 13-4), and the Temple of Juno Regina in circo Flaminio (Marchetti-Longhi 1970-1971, 23 and 60-1).


Text: 51-5 and 154.
### ROME: Fortuna Huiusce Diei, temples I & II

#### actual measurements, temple I & II

<table>
<thead>
<tr>
<th></th>
<th>meters</th>
<th>roman feet</th>
<th>ideal roman feet</th>
<th>% difference</th>
<th>ideal proportional relationships to critical dimension *</th>
<th>within columnar order **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hei. to entablature</td>
<td>16.4</td>
<td>55.4</td>
<td>56</td>
<td>1.1%</td>
<td>7/8</td>
<td></td>
</tr>
<tr>
<td>Foundation dep.</td>
<td>4.15</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundation wid.</td>
<td>14.2</td>
<td>48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stair treads</td>
<td>0.45</td>
<td>1.52</td>
<td></td>
<td></td>
<td>1/42</td>
<td></td>
</tr>
<tr>
<td>Stair risers</td>
<td>0.425</td>
<td>1.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stairway len.</td>
<td>5.3</td>
<td>17.9</td>
<td>18</td>
<td>0.6%</td>
<td>2/7</td>
<td></td>
</tr>
<tr>
<td>Stairway wid.</td>
<td>11.6</td>
<td>39.2</td>
<td>40</td>
<td>2.0%</td>
<td>5/8</td>
<td></td>
</tr>
<tr>
<td>Podium dia. at base</td>
<td>22.9</td>
<td>77.4</td>
<td>78</td>
<td>0.8%</td>
<td>1/2</td>
<td></td>
</tr>
<tr>
<td>Podium dia. at stylobate *</td>
<td>19.2</td>
<td>64.86</td>
<td>64</td>
<td>-1.3%</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Podium hei.</td>
<td>2.5</td>
<td>8.45</td>
<td>8.5</td>
<td></td>
<td>2/15</td>
<td></td>
</tr>
<tr>
<td>Podium cornice wid. (lower)</td>
<td>0.425</td>
<td>1.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Podium cornice hei.</td>
<td>0.85</td>
<td>2.87</td>
<td></td>
<td></td>
<td>1/22</td>
<td></td>
</tr>
<tr>
<td>Podium cornice wid. (upper)</td>
<td>0.425</td>
<td>1.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Podium cornice hei.</td>
<td>0.425</td>
<td>1.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stylobate hei.</td>
<td>0.22</td>
<td>0.74</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

#### actual measurements, temple I

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cella ext.</td>
<td>11.8</td>
<td>39.9</td>
<td>40</td>
<td>0.3%</td>
<td>5/8</td>
<td></td>
</tr>
<tr>
<td>Cella int.</td>
<td>9.5</td>
<td>32.1</td>
<td>32</td>
<td>-0.3%</td>
<td>1/2</td>
<td></td>
</tr>
<tr>
<td>Ambulatory (ext.)</td>
<td>1.5</td>
<td>5.1</td>
<td>5</td>
<td>-2.0%</td>
<td>1/13</td>
<td></td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>1.5</td>
<td>5.1</td>
<td>5</td>
<td>-2.0%</td>
<td>1/13</td>
<td></td>
</tr>
<tr>
<td>Door dep.</td>
<td>0.9</td>
<td>3</td>
<td></td>
<td></td>
<td>1/21</td>
<td></td>
</tr>
<tr>
<td>Door wid.</td>
<td>3</td>
<td>10.1</td>
<td>10</td>
<td>-1.0%</td>
<td>3/19</td>
<td></td>
</tr>
<tr>
<td>Total hei. (ext. columns)</td>
<td>13.1</td>
<td>44.3</td>
<td>45</td>
<td>1.6%</td>
<td>7/10</td>
<td>10 5/12</td>
</tr>
<tr>
<td>Base dia.</td>
<td>1.9</td>
<td>6.4</td>
<td></td>
<td></td>
<td>1/10</td>
<td>1 1/2</td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.6</td>
<td>2</td>
<td></td>
<td></td>
<td>1/32</td>
<td></td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>1.28</td>
<td>4.32</td>
<td></td>
<td></td>
<td>1/15</td>
<td>1</td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>10.85</td>
<td>36.66</td>
<td>36</td>
<td>-1.8%</td>
<td>9/16</td>
<td>8 1/3</td>
</tr>
<tr>
<td>Capital dia.</td>
<td>1.5</td>
<td>5.1</td>
<td>5</td>
<td>-2.0%</td>
<td>1/13</td>
<td>1 3/19</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>1.65</td>
<td>5.57</td>
<td></td>
<td></td>
<td>2/23</td>
<td>1 2/7</td>
</tr>
<tr>
<td>Intercolunnation</td>
<td>2.5</td>
<td>8.5</td>
<td></td>
<td></td>
<td>2/15</td>
<td>2</td>
</tr>
<tr>
<td>Interaxial</td>
<td>4.4</td>
<td>14.9</td>
<td></td>
<td></td>
<td>3/13</td>
<td>3 4/9</td>
</tr>
<tr>
<td>Interaxial dia.</td>
<td>16.2</td>
<td>54.7</td>
<td>56</td>
<td>2.4%</td>
<td>7/8</td>
<td>13</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>70.9</td>
<td>809.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### actual measurements, temple II

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cella ext.</td>
<td>17.3</td>
<td>58.4</td>
<td>58</td>
<td>-0.7%</td>
<td>9/10</td>
<td></td>
</tr>
<tr>
<td>Cella int.</td>
<td>15.8</td>
<td>53.4</td>
<td></td>
<td></td>
<td>5/6</td>
<td></td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>0.88</td>
<td>3</td>
<td></td>
<td></td>
<td>1/21</td>
<td></td>
</tr>
<tr>
<td>Door dep.</td>
<td>0.7</td>
<td>2.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Door wid.</td>
<td>5.1</td>
<td>17.2</td>
<td></td>
<td></td>
<td>4/15</td>
<td></td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>196.1</td>
<td>2239.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * critical dimension
** in relation to the lower column dia.

Source: Coarelli et al 1981, passim. figs. ???
Chart #38.1. ROME: Fortuna Huiusce Diei, temple I

Critical dimension = Podium dia. at stylobate
#38 ROME:
Fortuna Huluse Diei, temple I
Scale 1:200
Chart #38.2  ROME: Fortuna Huliusce Diei, temple II

Proportion of critical dimension

Critical dimension = Podium dia. at stylobate
#38 ROME:
Fortuna Huiusce Diei, temple II
Scale 1:200
Context: unknown
Date: under Antoninus Pius (158-159 AD): coins (see ‘Iconographic sources’ below)
Description: monopteros (see text) topped by a pediment or a dome; contains a statue of the
Genius Senatus? (see text)
Remains: none
Iconographic sources: coins minted under Antoninus Pius (*BMCEmp* IV 135 no. 915, 137-8
nos. 926-30, 145 no. 967-9, 324, 347-8 no. 2046, 350-1 nos. 2053-7, 353, 355, and 357-9
nos. 2093-7)
Decoration: statue of the Genius Senatus? (see ‘Iconographic sources’ above and text)
Bibliography: Birt 1845, 1613-25. *BMCEmp* IV lvi-ii, lxxiv, 135, 137-8, 145, 324, 347-8,
Text: 182-3.
Context: *ad Malum Punicum* (Regio VI), set within a rectangular precinct (see text) accessed via an arch? (see Torrelli 1987, 569, Coarelli 1995i, 368, and text)

Date: Domitianic period (89-96 AD): dates of the ancient sources (particularly Martial and Statius, see ‘Literary and epigraphical sources: Location’ below and text) and of the deaths of Julia and Domitian (see text), and coins? (see text and ‘Iconographic sources’ below)

Patron: Domitian

Description: rectangular with a podium and 10 columns supporting a triangular pediment

Remains: 2 sets of foundations and podia (see text), and reliefs (see text; they may have formed part of the Temple or its entrance arch)

Literary and epigraphical sources:

Location: Mart. epigr. 9.1.8-10, 3.12, and 34.1-2, Stat. Silv. 4.3.19 and 5.1.240-1, Suet. Dom. 1.1.9: Domitianus natus est VIII Kal. Novemb. regione urbis sexta ad Malum Punicum, domo quam postea in templum gentis Flaviae convertit, and Hist. Aug. Claud. 3.6 and trig. tyr. 33.6; cf. Pomp. Leto, Cod. Vat. Lat. 3394 and Cod. Barberin. Lat. 28 (ad Malum Punicum). Curiosum: Regio VI. Alta Semita. Continet: ... Statuam Mamuri, Templum Dei Quirini, Hortos Salustianos, Gentem Flabilam, Thermas Diocletianas ... (in Regio VI, see text for the Notitia).


Symbolism: Mart. epigr. 9.1.8-10, 3.12, 20.1, 34.1-2 and 7, and Stat. Silv. 4.2.60, 3.18-9, and 5.1.240-1 (as a reflection of the heavens and a symbol of Rome’s aeternitas).

Iconographic sources: sestertii minted under Domitian in 95-96 AD (*RIC* II 206 no. 413, *BMCEmp* II 407 no. *, pl. 80.12, and see text); reliefs (see Paris 1994c, 32 figs. 1-2)


ROME: Hercules, Shrine

Context: to the E of the Pons Aelius, W Campus Martius (Regio IX), rests on a pier that extends into the Tiber; the hemicycle backs onto the Tiber (N, see text and 'Description' below)

Date:
I. Julio-Claudian period: stylistic analysis of the capitals and base (see text)
II. under Antoninus Pius: medallion (see text and 'Iconographic sources' below)

Patron:
I. unknown
II. Antoninus Pius?

Description:
I. round monopteros (4.20 m. in dia., Luna marble?, see below) set inside a hemicycle (19 m. in dia., Luna marble?, see below) with 15 columns and 2 projecting autae, preceded by a rectangular altar; rests on a pier (50 m. long by 9.6 m. wide, Grotta Oscura and Antian tufa)
II. as I.

Remains:
I. 2 capitals (Luna marble, part of the monopteros or the hemicycle, see text) and possibly part of the monopteros' inscribed entablature (now lost, see text); a rectangular altar (Luna marble) and possibly a round altar (now lost, see text) were found nearby
II. none

Literary and epigraphical sources:
Inscriptions from 'Remains':
I. LIB[ER] (dedicatory inscription?, entablature, see text).

Iconographic sources:
II. medallion of Antoninus Pius (see Gnechi 1912, 22, Brown 1941, 19, and text)

Decoration:
I. ornate lion-skin capitals, the rectangular and the round? altars (see 'Remains' above)
II. a cult statue (see 'Iconographic sources' above and text)

Excavations:
I. D. Marchetti in 1890-1891 uncovered the pier, the base, and 2 capitals (now in the Museo Nazionale Romano); a third capital was discovered later (now in the Vatican)

Previous attributions: Dayan (1979) and Paris (1979, 264-5) see the altar as a base for a statue of Hercules, while Nash (1961-1962, Vol. 1:165) links the medallion to the Shrine of Baccus (#32).


<table>
<thead>
<tr>
<th></th>
<th>actual measurements</th>
<th>meters</th>
<th>roman feet</th>
<th>ideal</th>
<th>%</th>
<th>ideal proportional relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total ext. (hemicyle)</td>
<td></td>
<td>19</td>
<td>64</td>
<td>64</td>
<td>1</td>
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<tr>
<td>Monopteros ext.</td>
<td></td>
<td>4.2</td>
<td>14.19</td>
<td>14.19</td>
<td>2/9</td>
<td></td>
</tr>
<tr>
<td>Monopteros int.</td>
<td></td>
<td>3.15</td>
<td>10.6</td>
<td>10.6</td>
<td>1/6</td>
<td></td>
</tr>
<tr>
<td>Pier len.</td>
<td></td>
<td>50</td>
<td>168.9</td>
<td>168.9</td>
<td>2 2/3</td>
<td></td>
</tr>
<tr>
<td>Pier wid.</td>
<td></td>
<td>9.6</td>
<td>32.5</td>
<td>32.5</td>
<td>1/2</td>
<td></td>
</tr>
<tr>
<td>Capital dia.</td>
<td></td>
<td>0.26</td>
<td>0.88</td>
<td>0.88</td>
<td>1/73</td>
<td></td>
</tr>
<tr>
<td>Capital hei.</td>
<td></td>
<td>0.29</td>
<td>0.98</td>
<td>0.98</td>
<td>1/65</td>
<td></td>
</tr>
<tr>
<td>Intercolumnation</td>
<td></td>
<td>1.5</td>
<td>5.3</td>
<td>5.3</td>
<td>1/12</td>
<td></td>
</tr>
<tr>
<td>Interalxial dia.</td>
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<td>3.68</td>
<td>12.40</td>
<td>12.40</td>
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<td></td>
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<tr>
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<td></td>
<td>7.8</td>
<td>88.2</td>
<td>88.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**  *critical dimension*

**Source:** Marchetti 1891, 45 pl 3.
#41 ROME:
Hercules, shrine
Scale 1:200
#42 ROME: Hercules and the Muses. Temple

**Context:** Campus Martius (Regio IX), enclosed within the Porticus Philippi (29 BC); the Porticus is bordered by the Circus Flaminius (220 BC, SW), a wig market (NW), and the Porticus Octaviae (previously the Porticus Metelli, 146 BC, NE); the Temple is oriented towards the Circus Flaminius (SW)

**Date:**
I. 187 BC: ancient sources (see ‘Literary and epigraphical sources: Attribution’ below), and building remains
II. 29 BC (Temple rebuilt and Porticus constructed): ancient sources (see ‘Literary and epigraphical sources: Foundation and rebuildings’ below)
III. Augustan period (Porticus rebuilt): ancient sources (see ‘Literary and epigraphical sources: Foundation and rebuildings’ below)

**Patron:**
I. M. Fulvius Nobilior
II. L. Marcus Philippus
III. Augustus

**Description:**
I. drum (12 m. in dia., tufa revetted in Pentelic marble and capellaccio) with a pronaos and 4 stairs; rests on a two-level? platform indented with rectangular niches (see text)
II and III. as I, but enclosed within a columnar porico

**Remains:**
I. part of the podium of a rectangular pronaos (tufa opus quadratum revetted in Pentelic marble) and a curved foundation (capellaccio blocks; see Gianfrotta 1985, 376-84, and Viscogliosi 1996c, 18); an inscribed statue base was found nearby (see Marabini-Mocvs 1981, 47 and 58)
II and III. none

**Literary and epigraphical sources:**

Inscriptions from ‘Remains’ and ‘Iconographic sources’: *CIL VI* 1307 (statue base);
  Severan Marble plan: AEDIS HERCVLI[S MVSAR]VM.

* Fulvius non dubitavit Martis manubias Musis consecrare (Fulvius dedicates the Muses to Mars). Eumen. *inst. schol.* 7-8: *aedem Herculis Musarum in circulo Flaminio Fulvius ille Nobilior ex pecunia censoria fecit, non id modo secutus, quod ipse litteris et summis poetae amicitia duceret, sed quod in Graecia cum esset imperator accipiat Heracleam Musagetem esse, id est comitem ducemque Musarum, idemque primus novem signa Camenarum ex Ambraciensi oppido translata sub tutela fortissimi numinis consecravit ut res ess, quia mutuis opibus et premiis invari ornarique deberent: Musarum quies defenceone Herculis et virtus Hercules voce Musarum.*
  (Temple dedicated to Hercules and the Muses).


Foundation and rebuildings:
**Decorative program:**


Serv. *Aen.* 1.8, and Propert. 4.2.59-64 (Shrine of the Camenae #33). Macr. *Sat.* 1.12.16, and Varro *ling.* 6.33 (copies of the *Fasti*).

II. Plin. *nat.* 35.66, 114 and 144 (Greek paintings by Zeuxis and Theorus and 3 statues by Antiphilus).


**Iconographic sources:** Severan marble plan (fr. 31); Campania plaque (see Marabini Moevs 1981, 5 and 47); denarii minted by Q. Pomponius Musa in 66 BC (see Marabini Moevs 1981, 8-10); late Republican crater from Cerdo (see Marabini Moevs 1981, 47-8); 1st c. BC Arretine ware (see Marabini Moevs 1981, 21-2)

**Decoration:**

I-III. statues of the Ambracian Muscs and Hercules Musagetes, the Shrine of the Camenae (#33), and copies of the *Fasti* (see ‘Literary and epigraphical sources: Decorative program’ above)

II-III. Greek paintings and statues (see ‘Literary and epigraphical sources: Decorative program’ above)

**Excavations:** P. A. Gianfrotta in the early 1980s

**Previous attributions:** Castagnoli (1961) suggested that Fulvius rededicated the Temple of Hercules Magnus Custos to Hercules and the Muses after setting up Numa’s Shrine (#33) and the Ambracian Muses, while Richardson, jr. (1977, 355-6 and 361; cf. Cancik 1969, 324) proposed that Fulvius set up a small shrine to the Muses which was amplified, in the course of Philipps’ restoration (see text), into a full-scale Temple complex.


**Text:** 41-5.
**ROME: Hercules and the Muses, temple**

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>meters</th>
<th>roman feet</th>
<th>roman feet</th>
<th>difference</th>
<th>ideal proportional relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cella ext. *</td>
<td>12</td>
<td>40.5</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Porch len.</td>
<td>4</td>
<td>13.5</td>
<td></td>
<td></td>
<td>1/3</td>
</tr>
<tr>
<td>Porch wid.</td>
<td>8</td>
<td>27</td>
<td></td>
<td></td>
<td>2/3</td>
</tr>
<tr>
<td>Stair treads</td>
<td>1</td>
<td>3.4</td>
<td></td>
<td></td>
<td>1/12</td>
</tr>
<tr>
<td>Stairway len.</td>
<td>4</td>
<td>13.5</td>
<td></td>
<td></td>
<td>1/3</td>
</tr>
<tr>
<td>Stairway wid.</td>
<td>4</td>
<td>13.5</td>
<td></td>
<td></td>
<td>1/3</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>113.1</td>
<td>1288.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *critical dimension*

Source: Severan Marble Plan fr. 31.
Chart #42. ROME: Hercules and the Muses, temple

- Stairway wid.
- Stairway len.
- Stair treads
- Porch wid.
- Porch len.
- Cella ext.

Proportion of critical dimension

Critical dimension = Cella ext.
#42 ROME:
Hercules and the Muses, temple
Scale 1:100
Context: forum Boarium (Regio IX); beneath the ex-Palazzo dei Musei di Roma
Date: 142 BC: ancient sources (see ‘Literary and epigraphical sources: Founder’ below)
Patron: L. Aemilius Paulus, P. Cornelius Scipio Aemilianus, the familia of Hercules, or T. Quinctius Flamininus (see text)
Description: round peripteros (28 m. in dia., marble?) with a 2-step krepis, 18 exterior columns (Attic bases, monolithic shafts, Tuscan capitals), 5 interior niches (see Giovenale 1927, 378-9), 1 window, and a conical roof (see text)
Remains: a statue of Hercules (see ‘Decoration’ below)

Literary and epigraphical sources:
Location and attribution: Serv. Aen. 8.363 (cf. Macr. Sat. 3.6.10): sed Romae Herculis
          Victoris aedes duae sunt, una ad portam Trigeminam, alia in foro Boario, Liv. 10.23.3:
          in sacello Pudicitiae Patriciae quae in foro Boario est ad aedem rotundam Herculis,
          and Fest. p. 282 L: Pudicitiae signum in foro Boario est, ubi familiae aedisset
          Herculis (location in foro Boario). Plin. nat. 10.79 (temple of Hercules, where no flies
          or dogs could enter). Serv. Aen. 9.406 (round Temples dedicated to Hercules). Varro in
          Schol. Dan. Aen. 8.363: victor ... quod omne genus animalium dinceps vicerit
          (Hercules Victor).
          20.4 (P. Cornelius Scipio Aemilianus).
          Decorative program: Plin. nat. 35.4.19 (Pacuvius’ paintings). Plin. nat. 35.23 (paintings
          comparable to the tabulae of Hostilius Mancinus). Serv. Aen. 3.407 and 8.288, and
          Macr. Sat. 3.6.17 (statue of Hercules).
Iconographic sources: drawing by B. Peruzzi (ca. 1503-1513; cf. 16th c. descriptions cited in
Decoration: Pacuvius’ paintings; a bronze statue of Hercules (2.50 m. high) found under
          Sixtus IV; a relief depicting Hercules, Virtus and Voluptas (see 16th c. descriptions under
          ‘Iconographic sources’)
Excavations: destroyed under Pope Sixtus IV (1471-1484)
Previous attributions: see text and Scaliger’s reading of Fest. p. 282 L: Aemilliana aedis est
          Herculis, Mommsen’s reading: ubi familia edisset (i.e. sedisset) Herculis, and Palmer’s
          reading: ubi Flaminini aedis est Herculis.
Text: 45-8.
| Cella ext. | 15.5 | 52.36 | 47 | 7/15 |
| Cella int. | 12.5 | 42.23 | 42 | -0.5% | 7/15 |
| Total hei. | 23.4 | 79.1  | 7/8 |
| Stair treads | 0.8 | 2.7  | 1/33 |
| Stair risers | 0.4 | 1.4  | 1/64 |
| Krepis dia. at base | 28 | 94.6 | 1 | 1/20 |
| Krepis dia. at euthynteria | 26.4 | 89.2 | 90 | 0.9% | 1/33 |
| Krepis hei. | 0.8 | 2.7  | 1/33 |
| Euthynteria hei. | 0.4 | 1.4  | 1/64 |
| Ambulatory (ext.) | 2.75 | 9.29 | |
| Cella wall wid. | 1.5 | 5.1 | 5 | -2.0% | 1/18 |
| Door wid. | 2.9 | 9.8 | 10 | 2.0% | 1/9 |
| Door hei. | 9.6 | 32.4 | |
| Door jamb | 1 | 3.4  | |
| Door lintel | 1.6 | 5.4  | 3/50 |
| Window wid. | 0.8 | 2.7  | 1/33 |
| Window hei. | 2.9 | 9.8  | 1/9 |
| Window jamb | 0.6 | 2   | 1/45 |
| Window lintel | 0.6 | 2 | 1/45 |
| Total hei. (ext. columns) | 15.5 | 52.4 | 47 | 10 1/2 |
| Base dia. | 2.3 | 7.8  | 1 | 5/9 |
| Base hei. | 0.6 | 2   | 1/45 | 2/5 |
| Lower column dia. | 1.5 | 5.1 | 5 | -2.0% | 1/18 |
| Shaft hei. | 13.7 | 46.3 | 1/2 | 9 1/4 |
| Capital dia. | 2.5 | 8.4  | 1 | 2/3 |
| Capital hei. | 1.25 | 4.22 | 5/6 |
| Intercolumnation | 1.7 | 5.7  | 1 | 1/7 |
| Interaxial | 4 | 13.5 | 3/20 | 2 5/7 |
| Interaxial dia. | 21 | 70.9 | 4/5 | 14 1/6 |
| Entablature hei. (ext.) | 2.6 | 8.8 | 9 | 2.3% | 1/10 |
| Architrave hei. | 0.6 | 2   | 1/45 |
| Frieze hei. | 0.8 | 2.7  | 1/33 |
| Dentil hei. | 0.5 | 1.7  | |
| Cornice wid. | 0.7 | 2.4  | |
| Cornice hei. | 0.7 | 2.4  | |
| Roof wid. | 21.7 | 73.3 | 4/5 |
| Roof hei. | 3.7 | 12.5 | 1/7 |
| Floor space (square measure) | 122.7 | 1400.7 |
| Volume (cubic measure) | 228.8 | 5491.3 |

Note:  
* critical dimension  
** in relation to the lower column dia.

Source: Peruzzi's drawing.  
#43 ROME:
Hercules Victor in foro Boario, temple
Scale 1:200
#44 ROME: Hercules Victor ad portam Trigeminam, Temple

**Context:** forum Boarium (Regio IX), on M. Fulvius Nobilior’s port extension (179 BC) next to the rectangular Temple of Portunus (early 2\textsuperscript{nd} c.-1\textsuperscript{st} c. BC, N); oriented E

**Date:**
I. late 2\textsuperscript{nd} c. BC: *terminus post quem* of the port extension (ceramic remains), and building materials and techniques (see text)
II. Tiberian period: Luna marble column drums and capitals (see 'Remains' below)

**Architect:**
I. Hermodorus of Salamis? (see text)
II. unknown

**Patron:**
I. M. Octavius Hersennus or L. Mummius Achaicus (see text)
II. unknown

**Description:**
I. round peripteros (22.7 m. in dia., marble and travertine) with ring foundations, a 4-step krepis, 20 columns (Attic bases, fluted shafts, Corinthian capitals), 2 windows, a Corinthian entablature, coffers, and a conical roof
II. as I.

**Remains:**
I. most of the foundations (Grotta Oscura tufa), krepis (tufa faced with Pentelic marble), euthynteria (travertine), cella walls (travertine revetted in Pentelic marble), columns (Group A #1-4, 6-7, and 19-20: Pentelic marble drums and capitals, and Group C #5 and 8: Pentelic marble drums), and some roof tiles and acroteria (Pentelic marble); an inscribed statue base (marble) was found nearby
II. repairs to the cell walls (Luna marble) and columns (Group B #5, 8, 9-14, and 16-8: Luna marble drums and capitals, and Group C #5 and 8: Luna marble capitals); fragments of the paving (various colored marbles)

**Literary and epigraphical sources:**

*Inscriptions from ‘Remains’:*
I. *CIL VI* 33936: *(Hercules Victor cognominatus vulgus) Olivarius opus Scopae minoris* (statue base).


**Foundation and date:** *fasti Antiat.* and *Allif.* (dies natalis of 13 August).

**Decoration:**
I-II. a statue of Hercules Victor (see ‘Remains’ above); a marble antefix block depicting an eagle preparing for flight
II. a multi-colored marble pavement (see ‘Remains’ above)

**Excavations:** standing since antiquity

**Previous attributions:** since the Renaissance, it has been identified as the ‘Temple of Vesta,’ while the neighboring Temple of Portunus has been interpreted as the Temple of Fortuna Virilis.


**Text:** 45-6 and 48-51.
**ROME: Hercules Victor ad portam Trigeminam, temple**

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>meters</th>
<th>greek feet</th>
<th>feet</th>
<th>ideal greek feet</th>
<th>difference</th>
<th>% difference</th>
<th>ideal proportional relationships to critical dimension</th>
<th>within columnar order **</th>
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</thead>
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<td>9.906</td>
<td>29.98</td>
<td>30.0</td>
<td>0.1%</td>
<td>3/5</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cella int.</td>
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<td>25.82</td>
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<td></td>
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<td>Foundation dep.</td>
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<td>12.4</td>
<td>12.5</td>
<td>0.8%</td>
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<td></td>
<td></td>
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<tr>
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<td>1.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stair risers</td>
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<td>0.85</td>
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<td>1/60</td>
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<tr>
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<td>22.7</td>
<td>68.7</td>
<td>66.7</td>
<td>-2.9%</td>
<td>1 1/3</td>
<td></td>
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<td></td>
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<tr>
<td>Krepis dia. at euthynteria *</td>
<td>16.517</td>
<td>49.99</td>
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<tr>
<td>Krepis hei.</td>
<td>1.1</td>
<td>3.3</td>
<td>3.33</td>
<td>1.0%</td>
<td>1/15</td>
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<tr>
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<td>2.7%</td>
<td>1/67</td>
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<tr>
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<td>6.27</td>
<td>6.25</td>
<td>-0.3%</td>
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<td>1/24</td>
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</tr>
<tr>
<td>Cornice wid. (cella wall)</td>
<td>0.2</td>
<td>0.6</td>
<td></td>
<td></td>
<td>1/83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornice hei.</td>
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<td></td>
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<td></td>
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<tr>
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<td>3.05</td>
<td>3</td>
<td>-1.6%</td>
<td>3/50</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Door jamb</td>
<td>0.6</td>
<td>1.8</td>
<td></td>
<td></td>
<td>1/28</td>
<td></td>
<td></td>
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<tr>
<td>Window wid.</td>
<td>1.5</td>
<td>4.6</td>
<td>4.55</td>
<td>-1.2%</td>
<td>1/11</td>
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<td>9.4</td>
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<td>3/16</td>
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<td></td>
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</tr>
<tr>
<td>Window jamb</td>
<td>0.4</td>
<td>1.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Window lintel</td>
<td>0.6</td>
<td>1.8</td>
<td></td>
<td></td>
<td>1/28</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total hei. (incl. plinth)</td>
<td>10.66</td>
<td>32.26</td>
<td>32.5</td>
<td>0.7%</td>
<td>2/3</td>
<td>11 3/5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total hei. (not incl. plinth)</td>
<td>10.43</td>
<td>31.57</td>
<td></td>
<td></td>
<td>5/8</td>
<td>11 1/3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base dia.</td>
<td>1.2</td>
<td>3.6</td>
<td></td>
<td></td>
<td>1/14</td>
<td>1 2/7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.26</td>
<td>0.787</td>
<td></td>
<td></td>
<td>1/64</td>
<td>2/7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.957</td>
<td>2.78</td>
<td></td>
<td></td>
<td>1/18</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>8.91</td>
<td>26.9</td>
<td></td>
<td></td>
<td>7/13</td>
<td>9 2/3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital dia.</td>
<td>1.9</td>
<td>5.8</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital hei.</td>
<td>1.26</td>
<td>3.81</td>
<td></td>
<td></td>
<td>1/13</td>
<td>1 3/8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercolumnation</td>
<td>1.21</td>
<td>3.66</td>
<td>3.75</td>
<td>2.5%</td>
<td>3/40</td>
<td>1 1/3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaxial</td>
<td>2.42</td>
<td>7.32</td>
<td>7.5</td>
<td>2.5%</td>
<td>3/20</td>
<td>2 5/8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaxial dia.</td>
<td>15.2</td>
<td>46</td>
<td>45.0</td>
<td>-2.2%</td>
<td>9/10</td>
<td>16 5/9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>57.1</td>
<td>523.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**reconstructed measurements**

|                  |         |           |           |                |          |                  |                                                      |                          |
|------------------|--------|-----------|-----------|----------------|----------|------------------------------------------------------|--------------------------|
| Total hei.       | 14.7   | 44.5      | 45.0      | 1.1%           | 9/10     |                                                      |                          |
| Door hei.        | 6.75   | 20.43     | 20.0      | -2.1%          | 2/5      |                                                      |                          |
| Door lintel      | 1.45   | 4.39      |           |                |          |                                                      |                          |
| Entablature hei. (ext.) | 2.12 | 6.42      |           |                | 1/8      |                                                      |                          |
| Architrave hei.  | 0.75   | 2.3       |           |                | 1/22     |                                                      |                          |
| Frieze hei.      | 0.72   | 2.18      |           |                | 1/23     |                                                      |                          |
| Dentil hei.      | 0.35   | 1.06      |           |                | 1/47     |                                                      |                          |
| Cornice wid.     | 0.45   | 1.36      |           |                | 1/37     |                                                      |                          |
| Cornice hei.     | 0.3    | 0.9       |           |                | 1/56     |                                                      |                          |
| Roof dia.        | 17.5   | 53        |           |                | 1 1/15   |                                                      |                          |
| Roof hei.        | 3.7    | 11.2      |           |                | 2/9      |                                                      |                          |
| Volume (cubic measure) | 163.2 | 3466.1     |           |                |          |                                                      |                          |

Note:  
* critical dimension  
** in relation to the lower column dia.

Source: Rakob and Hellmeyer 1973, passim figs. ???  
Wilson Jones 1989, ???
#44 ROME:
Hercules Victor ad portam
Trigeminam, temple
Scale 1:200
ROME: Juno Martialis, Temple

Context: Campus Martius (Regio IX) or Campus Martialis, located near the Porta Caelimontana (Regio V)

Date: 251 AD: coins (see 'Iconographic sources' below)

Patron: Trebonianus Gallus? (see text)

Description: round monopteros on a stepped krepis with Corinthian columns, an entablature, and a domed roof topped by antefixes and acroteria

Iconographic sources: coins minted under Trebonianus Gallus (identified by the legend IVNO MARTIALIS; RIC IV.3 161-2 nos. 26 and 35, 164 no. 54, 166 no. 69, and 171 nos. 109-12; cf. Brown 1941, 121-5, 360-1, and 363)

Decoration: cult statue of Juno Martialis inside the temple; herms? outside


Text: 229-30.
#46 ROME: Mars Ultor, Temple

**Context:** Capitoline (Regio VIII)

**Date:** 20 BC: the return of the ensigns from Parthia (see ‘Literary and epigraphical sources: Foundation and location’ below and text)

**Patron:** the Senate in honor of Augustus

**Description:** round monopteros resting on a 3-5 step kreips with Corinthian columns, a Corinthian entablature, and a domed roof

**Remains:** none

**Literary and epigraphical sources:**

**Foundation and location:** Cass. Dio 54.8.3: “a temple of Mars Ultor on the Capitol for the reception of the standards, in imitation of that of Jupiter Feretrius, (was) decreed on (Augustus’) orders and carried out by him.” trans. Rich (Temple built as a repository for the ensigns, modeled after the Temple of Jupiter Feretrius).

**Iconographic sources:** coins minted by M. Durmius, P. Petronius Turpillianus, and L. Aquillius Florus: SIGN. RECEP. (BMCEmp I 3 fol. nos. 10-7 pl. 1.7-9, 8 nos. 40-2 pl. 2.2, and 11 nos. 56-9 pl. 2.11-2); cuirass of the Augustus from Prima Porta; cistophoroi from Ephesus and Pergamon; IMP.IX.TR. PO.IV or PO.V (BMCEmp I cix fol., 114 no. 704 pl. 17.12, Sutherland et al. 1970, 33-7 and 81-4 pls. 34-5, and Giard 1976, 154 nos. 989-91 pl. 39); aurei and denarii from Colonia Patricia (CP) and Caesaraugusta (CA) in Spain: S.P.Q.R.I.M.P.CAESARLAVG.COS.XI.TRI.POT.VI and CIVIB.ET.SIGN.MILIT.A. PART.RECVF (BMCEmp I 65 nos. 366-70 pls. 7.18-20 and 8.1, 66 nos. 371-5 pl. 8.2-5 CP, and 58 no. 315 pl. 5.20 CA, RIC I 25 fol.; round temple, a chariot, an eagle and a small quadriga: Giard 1976, 179-81 nos. 1200-24 plps. 47-8 CP; a round temple, an eagle and two ensigns: Giard 1976, 179 nos. 1201-8 pl. 47 CP; a round temple and Mars Ultor: Giard 1976, 168 nos. 1104-14 plps. 44 CP and 193 no. 1329 pl. 54 CA)

**Decoration:** ensigns and eagles (see ‘Literary, epigraphical and iconographic sources’ above); cult statue (Spanish coins, see text)


**Text:** 109-15.
Context: near the starting gates of the Circus Maximus (Regio XI); orientation unknown
Date: 495 BC; ancient sources (see 'Literary and epigraphical sources: Foundation and attribution' below)
Patron: the Roman people empowered by the Senate; inaugurated by the centurion M. Laetorius
Description: rectangular? (see text)
Remains: none

Literary and epigraphical sources:

Foundation and attribution: Mart. epigr. 7.74-5, Macr. Sat. 1.12.19, Lyd. mag. 4.80, and
    Philocal. fast. = CIL I p 213, 216, 221, 264, and 318 (Temple dedicated to Mercury and
    possibly Maia). Serv. Aen. 9.406: Aedes autem rotundas tribus diis dicunt fieri debere,
    Vestae, Dianae, vel Herculi, vel Mercurio (round temples dedicated to Mercury?).
Location: Liv. 2.21.7 and 27.5-6, and Val. Max. 9.3.6 (near the Circus Maximus). Ov. fast.
    5.669-70, Apul. met. 6 8.1.2.3, Tac. ann. 12.24.1-2, and Tert. spect. 8.1-6 (on the
    slopes of the Aventine near the starting gates). Not. VZ I, p. 133, and Mir. 29, 61 VZ 3
    (Regio XI).
Cult: Liv. 2.21.7, Ov. fast. 5.669-70, Fest. p. 135 and 148 L, Mart. epigr. 12.67.1, and
    Philocal. fast. = CIL I p 213, 216, 221, 264, and 318 (dies natalis of the Ides of May).
    Liv. 2.27.5, Fest. p. 148, Cic. ad Q. fr. 2.5.2, Ov. fast. 5.699 fol., and CIL I 14.2105 and
    186.206 (institution of the collegium mercatorum or Mercurialium).
Iconographic sources: sesterces minted in 172-173 AD (BMCRE IV cxxxix, Küthmann and
    Overbeck 1973a, 46-7 no. 87, and Hill 1989, 37); Severan Marble Plan fr. 8n
Text: 21-3.
Context: Campus Martius (Regio IX), sited between the Porticus Divorum and the Serapeum
Date: Domitianic period; ancient sources and coins (see ‘Literary and epigraphical sources:
Patron’ and ‘Iconographic sources’ below)
Patron: Domitian
Description: round with 4 sets of steps, 4 doors, 4 niches, and a base? (see text)
Remains: none

Literary and epigraphical sources:
Inscriptions from ‘Iconographic sources’: the Severan Marble Plan: MI[NE]RVA
CH[ALCIDIC]A. O. Panvinio’s drawing: Templum isidis et serapidis alias solis
Location and attribution: see the Severan Marble Plan (see ‘Literary and epigraphical
sources: Inscriptions from Iconographic sources’ above). *Curt.* (Campus Martius, Regio IX).
*Mir.* 22, 50 VZ III: iuxta Pantheon templum Minervae Calcidae (between the Temple of Isis and the Pantheon).
*Itin.* (Campus Martius, Regio IX). Helen (early Medieval church); cf. *Cod.* Cenc. 136 and Taur. 138: S.
Maria in Minerva, Paris. 42: S. Maria de Minerva, and Sign. 176: S. Maria supra
Minervam).
(Domitian’s Temple of Minerva Chalcidica).
Iconographic sources: Severan Marble Plan fr. 35; coins minted under Domitian, ca. 94 AD
(RIC II 178 no. 206 D, BMCEmp II 346 no. 241 pl. 67.7, and Hill 1989, 28-9); drawing by
309)

Bibliography: Bellori 1673, 23 pl. 5. Lanciani 1883a, esp. 42; 1888, 3-11, Hülsen 1903, esp.
39-46. Petersen 1903, esp. 320. Jordan and Hülsen 1907, 375 and 577 n. 48. Lundström 1929,
Capraris 1996, 255.

### ROME: 'Minerva Chalcidica, temple'

**Reconstructed measurements**

<table>
<thead>
<tr>
<th>Marble Plan</th>
<th>meters</th>
<th>roman feet</th>
<th>roman feet</th>
<th>difference</th>
<th>ideal proportional relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total ext.</td>
<td>29</td>
<td>98</td>
<td>64</td>
<td>-0.31%</td>
<td>1 /1/2</td>
</tr>
<tr>
<td>Cella ext. *</td>
<td>19</td>
<td>64.2</td>
<td>64</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Cella int.</td>
<td>9.3</td>
<td>31.4</td>
<td>32</td>
<td>1.91%</td>
<td>1 /2</td>
</tr>
<tr>
<td>Base at center wid.</td>
<td>2.5</td>
<td>8.4</td>
<td></td>
<td></td>
<td>2 /15</td>
</tr>
<tr>
<td>Stair treads</td>
<td>1.2</td>
<td>4.1</td>
<td>4</td>
<td>-2.44%</td>
<td>1 /16</td>
</tr>
<tr>
<td>Stairway len.</td>
<td>5</td>
<td>16.9</td>
<td></td>
<td></td>
<td>4 /15</td>
</tr>
<tr>
<td>Stairway wid. (bottom)</td>
<td>6</td>
<td>20.2</td>
<td></td>
<td></td>
<td>6 /19</td>
</tr>
<tr>
<td>Stairway wid. (top)</td>
<td>3</td>
<td>10.1</td>
<td></td>
<td></td>
<td>3 /19</td>
</tr>
<tr>
<td>Niche dep.</td>
<td>2.5</td>
<td>8.4</td>
<td></td>
<td></td>
<td>2 /15</td>
</tr>
<tr>
<td>Niche wid.</td>
<td>8</td>
<td>27</td>
<td></td>
<td></td>
<td>3 /7</td>
</tr>
<tr>
<td><strong>Floorspace (square measure, based on Total ext.)</strong></td>
<td><strong>660.5</strong></td>
<td><strong>7543.0</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Floorspace (square measure, based on Cella int.)</strong></td>
<td><strong>67.9</strong></td>
<td><strong>774.4</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Ligorio's Plan

<table>
<thead>
<tr>
<th>Ligorio's Plan</th>
<th>meters</th>
<th>roman feet</th>
<th>roman feet</th>
<th>difference</th>
<th>ideal proportional relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total ext. *</td>
<td>24</td>
<td>81.1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Cella ext.</td>
<td>19.2</td>
<td>64.9</td>
<td></td>
<td></td>
<td>4 /5</td>
</tr>
<tr>
<td>Cella int.</td>
<td>16.8</td>
<td>56.8</td>
<td></td>
<td></td>
<td>7 /10</td>
</tr>
<tr>
<td>Ambulatory (ext.)</td>
<td>2.4</td>
<td>8.1</td>
<td></td>
<td></td>
<td>1 /10</td>
</tr>
<tr>
<td>Ambulatory (int.)</td>
<td>2.4</td>
<td>8.1</td>
<td></td>
<td></td>
<td>1 /10</td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>1.2</td>
<td>4.1</td>
<td>4.0</td>
<td>-1.3%</td>
<td>1 /20</td>
</tr>
<tr>
<td>Door wid.</td>
<td>2.7</td>
<td>9.1</td>
<td></td>
<td></td>
<td>1 /9</td>
</tr>
<tr>
<td>Base wid. (ext.)</td>
<td>1.2</td>
<td>4.1</td>
<td>4.0</td>
<td>-1.3%</td>
<td>1 /20</td>
</tr>
<tr>
<td>Intercolumnation</td>
<td>3</td>
<td>10.1</td>
<td></td>
<td></td>
<td>1 /8</td>
</tr>
<tr>
<td>Interaxial</td>
<td>4.2</td>
<td>14.1</td>
<td></td>
<td></td>
<td>4 /23</td>
</tr>
<tr>
<td>Base wid. (int.)</td>
<td>1.2</td>
<td>4.1</td>
<td>4.0</td>
<td>-1.3%</td>
<td>1 /20</td>
</tr>
<tr>
<td><strong>Floorspace (square measure)</strong></td>
<td><strong>221.7</strong></td>
<td><strong>2533.9</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**  * critical dimension

**Source:** Severan Marble Plan fr. ??

Ligorio's drawing.
#48 ROME:
'Minerva Chalcidica, temple'
Scale 1:200
Context: Forum (Regio VIII), near the Comitium, to the NW of the Rostra, and in front of the Temple of Concordia; set within a walled precinct delimited to the N by the Ara Saturni (7th-6th c. BC); oriented W (based on the door to the pars inferior)

Date:
I. 7th c. BC: ancient sources (see 'Literary and epigraphical sources' below)
II. late 2nd c. BC: stylistic analysis of the entablature (see text and Verzar 1976-1977, 383-93)
III. Severan period: building materials and techniques (see 'Remains' below)

Patron:
I. Romulus?
II and III. unknown

Description:
I. round pit
II. round monopteros (4.45 m. in dia., travertine) with an Ionic entablature and a bronze roof? (see Verzar 1976-1977, 385)
III. round monopteros (4.45 m. in dia., Luna marble and travertine) with an Ionic entablature

Remains:
I. none
II. the upper part of the entablature (travertine; may incl. soffits, see Verzar 1976-1977, 393; statue base (travertine)
III. foundations (3 brick rings around a concrete core) and the lower part of the entablature (Luna marble; incl. indentations for capitals, see Verzar 1976-1977, 385)

Literary and epigraphical sources:


Temple description: Fest. p. 144 L: Mundo nomen inpositum est ab eo mundo, qui supra nos est: forma enim eius est, ut ex [h]is qui intravere cognoscere potui, adsimilis illae. Eius inferiorem partem, veluti consecratam Dis Manibus clasam omni tempore nisi [h]is diebus qui supra scripti sunt maiores censuerunt habenda)m (2 parts; cf. Schol. Verg. 3.104).

Iconographic sources: drawing by P. Ligorio (Cod. Neap. 35, p. 145)

Excavations: L. Canina in 1803 (discovered during the excavation of the Arch of Septimius Severus)

Previous attributions: Bunsen (1834, 21) identified the foundations with the Miliarium aureum, while Richardson, jr. (1992, 404) links the Umbilicus Romae and the Miliarium, and Palombi (1995b, 365-8; cf. Cass. Dio 47.2.3 and 50.8.2, and von Sydow 1973, 573-4) sees the Mundus as the shrine of the Genius Populi Romani.


Text: 40-1 and 216-7.
### ROME: Mundus

#### Actual Measurements

<table>
<thead>
<tr>
<th></th>
<th>meters</th>
<th>roman feet</th>
<th>roman feet</th>
<th>% difference</th>
<th>proportional relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total ext.</td>
<td>5.1</td>
<td>17.23</td>
<td>17.5</td>
<td>1.6%</td>
<td>1/6</td>
</tr>
<tr>
<td>Monopterous ext. *</td>
<td>4.45</td>
<td>15</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Foundation dia. (ring 1)</td>
<td>5.1</td>
<td>17.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundation dia. (ring 2)</td>
<td>4.45</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundation dia. (ring 3)</td>
<td>3</td>
<td>10.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pit len.</td>
<td>1.14</td>
<td>3.85</td>
<td></td>
<td></td>
<td>1/4</td>
</tr>
<tr>
<td>Pit wid.</td>
<td>1.17</td>
<td>3.95</td>
<td></td>
<td></td>
<td>5/19</td>
</tr>
<tr>
<td>Pit dep.</td>
<td>1.43</td>
<td>4.83</td>
<td>4.8</td>
<td>-0.6%</td>
<td>8/25</td>
</tr>
<tr>
<td>Door wid. (to pit)</td>
<td>0.78</td>
<td>2.64</td>
<td></td>
<td></td>
<td>3/17</td>
</tr>
<tr>
<td>Door hei.</td>
<td>1.45</td>
<td>4.9</td>
<td>5</td>
<td>2.0%</td>
<td>1/3</td>
</tr>
<tr>
<td>Krepis dia. at base</td>
<td>5.1</td>
<td>17.23</td>
<td>17.5</td>
<td>1.6%</td>
<td>1/6</td>
</tr>
<tr>
<td>Krepis dia. at euthynteria</td>
<td>4.45</td>
<td>15.03</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total hei. (columns)</td>
<td>3</td>
<td>10.1</td>
<td></td>
<td></td>
<td>2/3</td>
</tr>
<tr>
<td>Capital dia.</td>
<td>0.245</td>
<td>0.83</td>
<td></td>
<td></td>
<td>1/18</td>
</tr>
<tr>
<td>Capital dei.</td>
<td>0.3</td>
<td>1</td>
<td></td>
<td></td>
<td>1/15</td>
</tr>
<tr>
<td>Interaxial dia.</td>
<td>3.7</td>
<td>12.5</td>
<td></td>
<td></td>
<td>5/6</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>15.6</td>
<td>176.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Note:
* critical dimension

#### Source:
#49 ROME:
Mundus
Scale 1:50
#50 ROME: Pantheon

**Context:** Campus Martius (Regio IX), flanked to the S by the South Building (Basilica Neptuni?, see text), to the E by the Saepa, and to the W by the Stagnum Agrippae; oriented towards the Basilica Neptuni (S) or the Mausoleum of Augustus (N) in periods I and II (see ‘Date’ below), and towards the Mausoleum of Augustus (N) from period III (see ‘Date’ below)

**Date:**
I. 25 BC: *CIL VI* 896.1 = *ILS* 129 (dedicatory inscription) and Cass. Dio 53.27 (see ‘Literary and epigraphical sources: Foundation and attribution’ below)
II. Domitianic period: *Chronogr. a. 354*, Hier. *chron. a. Abr.* 2105, and the upper bedding layer
III. Hadrianic period (118-128 AD): *CIL XV* 276, 362, 649a, 811b and c, 1106b, and 1406 (brick stamps) and the standing building
IV. under Antoninus Pius: *Hist. Aug. Pius* 8
V. under Septimius Severus and Caracalla: *CIL VI* 896.2 = *ILS* 129 (dedicatory inscription) and possible repair work (see text and ‘Remains’ below)

**Architect:**
I. and II. 25 BC and Domitianic period: unknown
II. Hadrianic period: Apollodorus of Damascus? (see text)
IV. and V. under Antoninus Pius, Septimius Severus, and Caracalla: unknown

**Patron:**
I. 25 BC: M. Vipsanius Agrippa
II. Domitianic period: Domitian
III. Hadrianic period: Hadrian
IV. under Antoninus Pius: Antoninus Pius
V. under Septimius Severus and Caracalla: Septimius Severus and Caracalla

**Description:**
I. 25 BC: either, by Beltrami’s reconstruction: rectangular (tufa and tufa *opus quadratum*) with a prostyle porch (21.76 long by 7.95 wide) and a transverse cella (43.76 long by 19.82 wide) preceded by a circular court? (55.8 m. in dia.) or, by La Rocca’s reconstruction: round (tufa and tufa *opus quadratum*) with a rectilinear porch (43.76 long by 19.82 wide) leading to a circular court, possibly ringed by an annular vault (55.8 m. in dia., concrete)
II. Domitianic period: as I.
III. Hadrianic period: round (brick-faced concrete revetted in marble) with a rectangular pronaos (34.07 m. wide by 15.62 m. deep; preceded by 4-5 stairs, incl. 16 Corinthian columns in 4 rows and 4 pilasters), a rectangular intermediate block (32.8 m. wide by 4.65-9.85 m. deep; incl. 2 exedrae and stair wells), and a drum (43.44 m. in dia.; 1st tier incl. 14 Corinthian columns fronting 7 exedrae, 8 aediculae with 2 Corinthian columns each, and numerous pilasters, above which are a 2nd tier and a cupola, see text), preceded by a rectangular porticus (120 m. long by 60 m. wide, probably of marble-faced *opus testaceum*; incl. Corinthian columns)
IV. and V. under Antoninus Pius, Septimius Severus and Caracalla: as III.

**Remains:**
I. 25 BC: travertine and tufa blocks beneath the Hadrianic pronaos and intermediate block, round wall (opus reticulatum; see Lanciani 1897, 482-3, and Gruben and Gruben 1997, 60), the lower of 2 concrete pavement levels below the rotunda’s floor (1.20 m. thick at 3.15 m. deep), and possibly steps (see text)
II. Domitianic period: the upper of 2 concrete pavement levels below the rotunda’s floor (0.30 m. thick at 2.15 m. deep), marble paving? (see Gruben and Gruben 1997, 55, 59, and 61), and possibly steps (see text)
III. Hadrianic period: almost the entire pronaos (structure of marble faced *opus testaceum*, Corinthian columns with granite shafts, and Pentelic marble bases and capitals; the bronze drop-vault ceiling was removed by Pope Urban VIII), intermediate block (marble-faced *opus testaceum*) and drum (structure of *opus testaceum* with 6 horizontal bands of aggregate, Corinthian columns and pilasters of giallo antico, pavonazzetto, and Pentelic marbles, veneer of various marbles and precious stones; the dome’s bronze revetment was removed in the 8th c. AD, cf. *LPD* 1.343 and *VZ* 2.251); from the rectangular pronaos, most of the Corinthian columns of granite with Pentelic marble bases and capitals, and the pavement of marble and travertine (see de Fine Licht 1966, 25-34) are extant

IV. under Antoninus Pius: none

V. under Septimius Severus and Caracalla: possible reinforcement of the drum or repairs to the marble veneer of its 2nd interior tier

Literary and epigraphical sources:

Inscriptions from ‘Remains’:

I and III. 25 BC and Hadrianic period: *CIL VI* 896.1 = *ILS* 129: M. AGRIPPA L. F. COS.

TERTIVM FECIT (Agrippa’s dedicatory inscription restored by Hadrian, entablature, see ‘Date’ above).

V. under Septimius Severus and Caracalla: *CIL VI* 896.2 = *ILS* 129: *Pantheum vetustate corruptum cum omni cultu restituerunt* (Septimius Severus’ and Caracalla’s dedicatory inscription, entablature, see ‘Date’ above).

Function and attribution:

I. See above and Cass. Dio 53.27: “Also he completed the building called the Pantheon. It has this name, perhaps because it received among the images which decorated it the statues of many gods, including Mars and Venus; but my own opinion of the name is that, because of its vaulted roof, it resembles the heavens. Agrippa, for his part, wished to place a statue of Augustus there also and to bestow upon him the honor of having the structure named after him; but when the emperor would not accept either honor, he placed in the temple itself a statue of the former Caesar and in the pronaos statues of Augustus and himself.” trans. de Fine Licht (Agrippa as founder, explanation of ‘Pantheon’, proposed temple to Augustus). Suet. *Aug.* 97 (site of Augustus’/Romulus’ apotheosis?*, see text).

II. Domitianic period: see ‘Date’ above.


IV. under Antoninus Pius: see ‘Date’ above.

Other: *CIL VI* 2041 = *ILS* 229 (Arval meeting place, pre-59 AD). *Oros. hist.* 7.12.5 and *Hier. chron. a. Abr.* 2126 (destroyed by lightning under Trajan). *LPD* 1.317 and *VZ* II 251 (Pantheon transformed into S. Maria ad Martyres, 609 AD). *POxy* III 412.63-8 (library attached to the Pantheon, see text).

Decorative scheme:

I. 25 BC: *Plin. nat.* 34.13 and 28 (Diogenes’ caryatids and pedimental sculpture).


Iconographic sources:

Decoration:
I. 25 BC: caryatids and pedimental sculpture
I-V. 25 BC to Caracalla: statues of Mars, Venus, Divus Iulius, Augustus, and Agrippa
III-V. Hadrianic period to Caracalla: floor and wall veneers (pavonazzetto, porphyry, giallo antico, and gray granite); portico: marble altar or statue base ('Arcus Pietatis', see text), pronaos: reliefs (see text); drum: statues of the deified emperors? (see text)

Excavations:
I. 25 BC: L. Beltrami in the 1890s, additional excavations in the 1990s
II. Domitianic period: Beltrami
III-V. Hadrianic period to Caracalla: standing

Previous attributions: see text


Text: 103-9, 156, 167-72, 181-2, and 226.
<table>
<thead>
<tr>
<th><strong>ROME: Pantheon</strong></th>
<th><strong>actual measurements</strong></th>
<th><strong>ideal proportions</strong></th>
<th><strong>ideal proportional relationships</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>meters</strong></td>
<td><strong>roman feet</strong></td>
<td><strong>ideal</strong></td>
</tr>
<tr>
<td><strong>Pantheon I-II</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cella len. (ext.)</td>
<td>43.76</td>
<td>147.8</td>
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</tr>
<tr>
<td>Cella wid.</td>
<td>19.82</td>
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<tr>
<td>Cella len. (int.)</td>
<td>40.79</td>
<td>137.8</td>
<td></td>
</tr>
<tr>
<td>Cella wid.</td>
<td>16.32</td>
<td>55.1</td>
<td></td>
</tr>
<tr>
<td>Porch len.</td>
<td>21.76</td>
<td>73.5</td>
<td></td>
</tr>
<tr>
<td>Porch wid.</td>
<td>7.95</td>
<td>26.9</td>
<td></td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>1.6</td>
<td>5.4</td>
<td></td>
</tr>
<tr>
<td>Floorspace</td>
<td>665.7</td>
<td>7597.8</td>
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<tr>
<td><strong>Pantheon III-V</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total ext. len.</td>
<td>76.5</td>
<td>258.4</td>
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</tr>
<tr>
<td>Cella ext.</td>
<td>55.8</td>
<td>188.5</td>
<td></td>
</tr>
<tr>
<td>Cella int.</td>
<td>43.57</td>
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<td></td>
</tr>
<tr>
<td>Total hei.</td>
<td>44.94</td>
<td>151.8</td>
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<tr>
<td>Hei. to springing of dome</td>
<td>22.03</td>
<td>74.43</td>
<td>1</td>
</tr>
<tr>
<td>Hei. to first drum level</td>
<td>13.1</td>
<td>44.26</td>
<td>44</td>
</tr>
<tr>
<td>Hei. to second drum level</td>
<td>8.9</td>
<td>30.07</td>
<td>1/5</td>
</tr>
<tr>
<td>Porch dep.</td>
<td>15.62</td>
<td>52.77</td>
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<tr>
<td>Porch wid.</td>
<td>34.07</td>
<td>115.1</td>
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<tr>
<td>Intermediate block dep. (by entrance)</td>
<td>4.65</td>
<td>15.71</td>
<td>2</td>
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<tr>
<td>Intermediate block dep. (by edge)</td>
<td>9.85</td>
<td>33.28</td>
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<tr>
<td>Intermediate block wid.</td>
<td>32.8</td>
<td>110.8</td>
<td>3</td>
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<tr>
<td>Intermediate block hei. (from podium)</td>
<td>30.5</td>
<td>103.04</td>
<td>9</td>
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<tr>
<td>Foundation dep.</td>
<td>4.5</td>
<td>15.2</td>
<td></td>
</tr>
<tr>
<td>Foundation wid. (wall)</td>
<td>7.3</td>
<td>24.66</td>
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<tr>
<td>Stair treads</td>
<td>0.38</td>
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<tr>
<td>Stair risers</td>
<td>0.31</td>
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<td>Podium hei.</td>
<td>1.32</td>
<td>4.46</td>
<td>4.5</td>
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<td>Podium cornice wid. (drum)</td>
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<td>Podium cornice hei.</td>
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<td>3.4</td>
<td>1/44</td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>6.2</td>
<td>20.95</td>
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</tr>
<tr>
<td>Cornice wid. (ext., 1st tier)</td>
<td>2.65</td>
<td>8.95</td>
<td>1</td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>2.1</td>
<td>7.1</td>
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</tr>
<tr>
<td>Cornice wid. (ext., 2nd tier)</td>
<td>4</td>
<td>13.5</td>
<td>1/11</td>
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<tr>
<td>Cornice hei.</td>
<td>3.2</td>
<td>10.8</td>
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</tr>
<tr>
<td>Cornice wid. (ext., 3rd tier)</td>
<td>4.6</td>
<td>15.5</td>
<td>15.0</td>
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<td>Cornice hei.</td>
<td>4</td>
<td>13.5</td>
<td></td>
</tr>
<tr>
<td>Exedrae dep. (rectangular)</td>
<td>4.15</td>
<td>14</td>
<td>1/11</td>
</tr>
<tr>
<td>Exedrae dep. (semicircular)</td>
<td>4</td>
<td>13.5</td>
<td>1/11</td>
</tr>
<tr>
<td>Exedrae wid. (both)</td>
<td>8.1</td>
<td>27.4</td>
<td>2/11</td>
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<tr>
<td>Exedrae hei.</td>
<td>13.1</td>
<td>44.3</td>
<td>44</td>
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<tr>
<td>Aediculae dep.</td>
<td>0.9</td>
<td>3</td>
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<tr>
<td>Aediculae wid.</td>
<td>3.85</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Aediculae hei.</td>
<td>8.3</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Door dep.</td>
<td>1.5</td>
<td>5.1</td>
<td>5</td>
</tr>
<tr>
<td>Door wid.</td>
<td>5.98</td>
<td>20.2</td>
<td>20</td>
</tr>
<tr>
<td>Door hei.</td>
<td>11.8</td>
<td>39.9</td>
<td>40</td>
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<tr>
<td>Actual Measurements</td>
<td>Pantheon I-II</td>
<td>Ideal Proportional Relationships</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------</td>
<td>-------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Total hei. (porch columns)</strong></td>
<td>14.153</td>
<td>6/19</td>
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</tr>
<tr>
<td><strong>Base dia.</strong></td>
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<td>1/21</td>
<td></td>
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<tr>
<td><strong>Base hei.</strong></td>
<td>0.735</td>
<td>1/60</td>
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</tr>
<tr>
<td>**Lower column dia. **</td>
<td>1.48</td>
<td>1/30</td>
<td></td>
</tr>
<tr>
<td><strong>Shaft hei.</strong></td>
<td>11.8</td>
<td>4/15</td>
<td></td>
</tr>
<tr>
<td><strong>Capital dia.</strong></td>
<td>2</td>
<td>1/22</td>
<td></td>
</tr>
<tr>
<td><strong>Capital hei.</strong></td>
<td>1.63</td>
<td>1/27</td>
<td></td>
</tr>
<tr>
<td><strong>Intercolumnation</strong></td>
<td>2.4</td>
<td>1/18</td>
<td></td>
</tr>
<tr>
<td><strong>Interaxial</strong></td>
<td>4.52</td>
<td>1/10</td>
<td></td>
</tr>
<tr>
<td><strong>Total hei. (exedrae)</strong></td>
<td>10.65</td>
<td>6/25</td>
<td></td>
</tr>
<tr>
<td><strong>Base dia.</strong></td>
<td>1.4</td>
<td>1/32</td>
<td></td>
</tr>
<tr>
<td><strong>Base hei.</strong></td>
<td>0.54</td>
<td>1/82</td>
<td></td>
</tr>
<tr>
<td>**Lower column dia. **</td>
<td>1.105</td>
<td>1/40</td>
<td></td>
</tr>
<tr>
<td><strong>Shaft hei.</strong></td>
<td>8.86</td>
<td>1/5</td>
<td></td>
</tr>
<tr>
<td><strong>Capital dia.</strong></td>
<td>1.5</td>
<td>1/30</td>
<td></td>
</tr>
<tr>
<td><strong>Capital hei.</strong></td>
<td>1.25</td>
<td>1/35</td>
<td></td>
</tr>
<tr>
<td><strong>Intercolumnation</strong></td>
<td>1.9</td>
<td>1/23</td>
<td></td>
</tr>
<tr>
<td><strong>Interaxial</strong></td>
<td>3.3</td>
<td>1/57</td>
<td></td>
</tr>
<tr>
<td>**Interaxial dia. **</td>
<td>44.52</td>
<td>1/40</td>
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</tr>
<tr>
<td><strong>Total hei. (aediculae)</strong></td>
<td>4.5</td>
<td>1/10</td>
<td></td>
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<tr>
<td><strong>Base dia.</strong></td>
<td>0.9</td>
<td>1/50</td>
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<tr>
<td><strong>Base hei.</strong></td>
<td>0.35</td>
<td>1/2</td>
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<tr>
<td>**Lower column dia. **</td>
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<td>1/56</td>
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<tr>
<td><strong>Shaft hei.</strong></td>
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<td>2/25</td>
<td></td>
</tr>
<tr>
<td><strong>Capital dia.</strong></td>
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<td>1/60</td>
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</tr>
<tr>
<td><strong>Capital hei.</strong></td>
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<td>1/88</td>
<td></td>
</tr>
<tr>
<td><strong>Intercolumnation</strong></td>
<td>2</td>
<td>1/22</td>
<td></td>
</tr>
<tr>
<td><strong>Interaxial</strong></td>
<td>2.9</td>
<td>1/15</td>
<td></td>
</tr>
<tr>
<td><strong>Entablature hei. (ext., porch)</strong></td>
<td>3.335</td>
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<tr>
<td><strong>Architrave hei.</strong></td>
<td>1.005</td>
<td>1/57</td>
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<tr>
<td><strong>Frieze hei.</strong></td>
<td>0.98</td>
<td>1/58</td>
<td></td>
</tr>
<tr>
<td><strong>Cornice wid.</strong></td>
<td>1.1</td>
<td>1/60</td>
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<td><strong>Cornice hei.</strong></td>
<td>1.35</td>
<td>1/47</td>
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</tr>
<tr>
<td><strong>Entablature hei. (int., 1st tier)</strong></td>
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<td>1/25</td>
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<tr>
<td><strong>Architrave hei.</strong></td>
<td>0.785</td>
<td>1/68</td>
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<td><strong>Frieze hei.</strong></td>
<td>0.775</td>
<td>1/88</td>
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<td><strong>Cornice wid.</strong></td>
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<td>1/88</td>
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<tr>
<td><strong>Cornice hei.</strong></td>
<td>0.95</td>
<td>1/75</td>
<td></td>
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<td>1/25</td>
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<td><strong>Architrave hei.</strong></td>
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<td>1/68</td>
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<tr>
<td><strong>Frieze hei.</strong></td>
<td>0.5</td>
<td>1/88</td>
<td></td>
</tr>
<tr>
<td><strong>Cornice wid.</strong></td>
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<td>1/88</td>
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<td><strong>Cornice hei.</strong></td>
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<td>1/75</td>
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<tr>
<td><strong>Roof dia.</strong></td>
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<td>13.9</td>
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<td><strong>Oculus dia.</strong></td>
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<td><strong>Floorspace (square measure)</strong></td>
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<tr>
<td><strong>Volume (cubic measure)</strong></td>
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<td>234464.8</td>
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</table>

Note: * critical dimension  ** in relation to the lower column dia.

Gruben and Gruben 1997, fig. 29.
Wilson Jones 2000, 220 fig. 9.3
Chart #50.2.  ROME: Pantheon

Critical dimension = Interaxial dia. 1/5 2/5

Proportion of critical dimension
ROME: Perirrhanterion

Context: Prata Flaminia, to the S of the Campus Martius (Regio IX); oriented (based on its threshold, see La Rocca 1993, 18) towards the Temple of Apollo Medicus (NE; 431 BC, restored several times, incl. ca. 30 BC)

Date:
I. Julio-Claudian period: foundations sited on the level of the Julio-Claudian pavement
II. Vespasianic period: dedicatory inscription (see 'Literary and epigraphical sources:
  Inscriptions from Remains' below) and a stylistic analysis of the building fragments (see text)

Patron:
I. unknown
II. Vespasian

Description:
I. round monopteros (5.20 m. in dia., marble) with Corinthian columns (number uncertain)
   and an entablature carved on both sides
II. as I.

Remains:
I. foundations (concrete, travertine, and tufa)
II. 2 capitals and much of the entablature (white marble)

Literary and epigraphical sources:
  Inscriptions from 'Remains':

  Source of Apollo:
  I. Frontin. aq. 1.4: fontium memoria cum sanctitate adhuc existat et colitur: salubritatem aegris corporibus adferre credantur, sicut Camenarum, Apollinaris et Iuturnae (lustral sources in Rome; cf. Liv. 3.63.7). TGL VI 910: erat praeterea vas purum in templis aut concionibus, aqua lustrali plenum, qua ritu ethnico aut sacerdotes aut aeditui perspergere solet aut qui ingrediebantur (definition of perirrhanterion).

Excavations: A. M. Colini in the 1930s

Previous attributions: Colini (1940) suggested that the foundations formed the base for an altar.


Text: 130-2 and 153-4.
### ROME: Perirrhantierion

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>meters</th>
<th>roman feet</th>
<th>ideal</th>
<th>roman feet</th>
<th>% difference</th>
<th>ideal proportional relationships</th>
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<tr>
<td>Total ext. *</td>
<td>5.2</td>
<td>17.57</td>
<td>18</td>
<td>1</td>
<td>2.4%</td>
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<td>Foundation dia.</td>
<td>5.2</td>
<td>17.57</td>
<td></td>
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</tr>
<tr>
<td>Capital dia. (columns)</td>
<td>0.3</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1/18</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.3</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td>1/18</td>
</tr>
<tr>
<td>Interaxial dia.</td>
<td>4.5</td>
<td>15.2</td>
<td>15</td>
<td>0.6</td>
<td>-1.3%</td>
<td>5/6</td>
</tr>
<tr>
<td>Entablature hei. (ext. and int.)</td>
<td>0.48</td>
<td>1.62</td>
<td></td>
<td>0.45</td>
<td>-2.2%</td>
<td>1/11</td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.135</td>
<td>0.46</td>
<td>0.45</td>
<td>0.6</td>
<td>-2.2%</td>
<td>1/40</td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.18</td>
<td>0.61</td>
<td></td>
<td>0.6</td>
<td>-1.6%</td>
<td>1/30</td>
</tr>
<tr>
<td>Dentil hei.</td>
<td>0.025</td>
<td>0.084</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.14</td>
<td>0.47</td>
<td></td>
<td></td>
<td></td>
<td>1/38</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>21.2</td>
<td>242.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *critical dimension*

Source: La Rocca 1993, figs. 2 and 7-8.
Author's photos from the Museo Montemartini.
#51 ROME: Perirrhanterion
Scale 1:50
#52 ROME: ‘Romulus, Temple’

**Context:** *summa Sacra Via* (Regio IV), between the Temple of Antoninus Pius and Faustina and the Basilica of Maxentius-Contantine; oriented towards the via Sacra (S)

**Date:**
I. under Maxentius: coins (see ‘Iconographic sources’ below), and building materials and techniques (see text)
II. under Constantine: inscription (see ‘Literary and epigraphical sources: Date’ below), and curved walls flanking the entrance (see ‘Remains’ below and text)

**Patron:**
I. Maxentius
II. Constantine or the Senate in his honor

**Description:**
I. rotunda (17.5 m. in dia., brick-faced *opus concreatum* and marble) fronted by 2 columns (plinths, Attic bases, monolithic shafts, Corinthian capitals), with 4 doors and 4 windows, an architrave, and a dome with an oculus, linked to 2 apsidal side halls (ca. 12.90 m. long by 6.13 m. wide) each fronted by 2 columns (plinths, Attic bases, monolithic shafts, Corinthian capitals) and roofed with cross vaults, and to an earlier rectangular hall that forms part of the Templum Pacis (Flavian, rebuilt under the Severans and Diocletian, see text)
II. as I, though with concave walls (incl. 2 tiers of statue niches, see text) linking the rotunda and the side halls

**Remains:**
I. rotunda: much of the foundations and superstructure (brick-faced *opus concreatum*; foundations may pertain to an earlier building, see Fiore 1981, 81 and text), the door frame (white marble), the doors (bronze), 2 columns (white marble bases and capitals, porphyry shafts; the travertine plinths are 17th c., see Frazer 1964, 96), the architrave (white marble), and the dome (peperino, tufa, and travertine); side halls: much of the superstructure (brick-faced *opus concreatum*), 2 columns (Luna marble plinths, white marble bases and capitals, cipollino shafts), and part of the vault (from the W hall, brick-faced *opus concreatum*); rectangular hall: part of an apsidal wall (brick-faced *opus concreatum*) and a door shared with the rotunda
II. concave walls (brick-faced *opus concreatum*)

**Literary and epigraphical sources:**


**Date:**

**Other:** *LPD LVI vita Felic. IV: hic fecit basilicam Ss. Cosmae et Damiani in urbe Roma in loco qui appellat tur via Sacra iuxta templum urbis Romae* (‘Temple’ converted into the vestibule of Ss. Cosma e Damiano, ca. 526-530 AD).
#52 ROME: 'Romulus, Temple', cont.

**Iconographic sources:** coins minted under Maxentius: first series (Roman *folles*: *RIC* VI 377 no. 207, 379 no. 226, 381 nos. 239-40 pl. 7; Ostian *aurei*: *RIC* VI 400 no. 1; Ostian *folles*: *RIC* VI 404 no. 34 pl. 7; Cohen 1888, 182-4 nos. 2-9), second series type 1 (Roman *folles*: *RIC* VI 382 nos. 243-57 pl. 7), second series type 2 (Roman *folles*: Cohen 1888, 184 nos. 11-2), second series type 3 (Ostian *folles*: *RIC* VI 404 nos. 24-33; Cohen 1888, 182 no. 1 and 184 no. 10), and second series types 2 and 3 with statues (Roman *folles*: *RIC* VI 382 nos. 243-57 pl. 7; Cohen 1888, 184 nos. 11-2); drawings by Ligorio (*Cod. Vat. Lat.* 3439 f. 14) and Panvinio (*Cod. Vat. Lat.* 6780 f. 45, see above); Renaissance drawings illustrating the rotunda (*Cod. Vat. Lat.* 3439 29r and 31r).

**Excavations:** R. Lanciani in the 1870s-1890s and P. B. Whitehead in the 1910s-1920s (for a full history of excavation and restoration work undertaken since the Renaissance, see Talamo 1981a, 17-22).

**Previous attributions:** first identified as the Heroon or Temple of Romulus (Nibby 1848-1849, 710; De Rossi 1866, 61; Lanciani 1883a, 33; Jordan and Hülsen 1907, 10; de Ruggiero 1913, 209; Bernhart 1926, 131; Platner and Ashby 1929, 450; Dörries 1954, 225, and Nash 1961-1962, Vol. 2: 268), the 'Temple' has since been interpreted as the *templum Sacrae Urbis or Urbis fanum* (cf. Aur. Vict. *Caes.* 11.26; Whitehead (later retracted) and Biasiotto cited in Lugli 1946, 225), a vestibule for the Templum Pacis (Whitehead 1927, 2; Frazer 1964, 78 and 1966, 391; Pisani Sartorio and Calza 1976, 152 n. 127, and Castagnoli 1988, 104), and under Constantine: a temple to Roma (Lucci 1964, 261) and an audience hall for the *praefectus Urbis* (Frazer 1964, 114-22, and see text).


**Text:** 238-47.
<table>
<thead>
<tr>
<th>Actual Measurements</th>
<th>Ideal Proportional Relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>meters</td>
</tr>
<tr>
<td>Total ext. (rotunda and 2 side halls)</td>
<td>29.5</td>
</tr>
<tr>
<td>Total ext. (rotunda and curvilinear wall)</td>
<td>18.7</td>
</tr>
<tr>
<td>Cella ext. (rotunda)</td>
<td>17.5</td>
</tr>
<tr>
<td>Cella int.</td>
<td>14.7</td>
</tr>
<tr>
<td>Total hei. (rotunda)</td>
<td>17.8</td>
</tr>
<tr>
<td>Side hall len</td>
<td>12.9</td>
</tr>
<tr>
<td>Side hall wid.</td>
<td>6.13</td>
</tr>
<tr>
<td>Side hall hei.</td>
<td>9.3</td>
</tr>
<tr>
<td>Foundation wid. (rotunda and 2 side halls)</td>
<td>29.5</td>
</tr>
<tr>
<td>Foundation wid. (rotunda and curvilinear wall)</td>
<td>18.7</td>
</tr>
<tr>
<td>Foundation wid. (wall)</td>
<td>2.1</td>
</tr>
<tr>
<td>Foundation hei.</td>
<td>1.7</td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>1.22</td>
</tr>
<tr>
<td>Cella wall wid. (minimum)</td>
<td>0.65</td>
</tr>
<tr>
<td>Cornice wid. (rotunda)</td>
<td>0.19</td>
</tr>
<tr>
<td>Exedrae dep. (rotunda)</td>
<td>2.2</td>
</tr>
<tr>
<td>Exedrae wid.</td>
<td>3.1</td>
</tr>
<tr>
<td>Door dep. (rotunda to Sacra via)</td>
<td>0.8</td>
</tr>
<tr>
<td>Door wid.</td>
<td>4.25</td>
</tr>
<tr>
<td>Door hei.</td>
<td>4.9</td>
</tr>
<tr>
<td>Door jamb</td>
<td>0.6</td>
</tr>
<tr>
<td>Door lintel</td>
<td>0.6</td>
</tr>
<tr>
<td>Door wid. (rotunda to Flavian hall)</td>
<td>4.15</td>
</tr>
<tr>
<td>Door wid. (to W side hall)</td>
<td>3.6</td>
</tr>
<tr>
<td>Door wid. (to E side hall)</td>
<td>3.6</td>
</tr>
<tr>
<td>Window wid. (rotunda)</td>
<td>2</td>
</tr>
<tr>
<td>Window hei.</td>
<td>3.45</td>
</tr>
<tr>
<td>Total hei. (rotunda columns, flanking entrance)</td>
<td>6.2</td>
</tr>
<tr>
<td>Pedestal wid.</td>
<td>0.8</td>
</tr>
<tr>
<td>Pedestal hei.</td>
<td>0.9</td>
</tr>
<tr>
<td>Base wid.</td>
<td>0.75</td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.5</td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.5</td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>4.2</td>
</tr>
<tr>
<td>Capital wid.</td>
<td>0.95</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.7</td>
</tr>
<tr>
<td>Intercolumnation</td>
<td>4.2</td>
</tr>
<tr>
<td>Interial</td>
<td>5</td>
</tr>
<tr>
<td>Total hei. (side hall columns)</td>
<td>10.1</td>
</tr>
<tr>
<td>Pedestal wid.</td>
<td>1.2</td>
</tr>
<tr>
<td>Pedestal hei.</td>
<td>1.3</td>
</tr>
<tr>
<td>Base wid.</td>
<td>1.1</td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.6</td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.94</td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>7</td>
</tr>
<tr>
<td>Capital wid.</td>
<td>1</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>1.2</td>
</tr>
<tr>
<td>Intercolumnation</td>
<td>4</td>
</tr>
<tr>
<td>Interial</td>
<td>5.2</td>
</tr>
<tr>
<td>Roof dia.</td>
<td>13.7</td>
</tr>
<tr>
<td>Roof hei.</td>
<td>2.2</td>
</tr>
<tr>
<td>Oculus dia.</td>
<td>3.7</td>
</tr>
<tr>
<td>Floorspace (rotunda) (square measure)</td>
<td>169.7</td>
</tr>
<tr>
<td>Floorspace (rotunda and side halls) (square measure)</td>
<td>327.9</td>
</tr>
<tr>
<td>Volume (rotunda) (cubic measure)</td>
<td>192.0</td>
</tr>
</tbody>
</table>

Note:  * critical dimension  
** in relation to the lower column dia.

Source: Flore 1981, 67-81 pls. ???
#53 ROME: Sol, Temple

**Context:** near S. Silvestro in Capite (Regio VII); set within a colonnaded portico probably oriented E or W (see text)

**Date:** Aurelianic period (275 AD): ancient sources (see ‘Literary and epigraphical sources: Foundation and dedication’ below), and a stylistic analysis of the remains

**Patron:** Aurelian

**Description:** most likely round with a 10-column pronaos, an intermediate block, and a drum (incl. 7 niches, see text); set within a rectangular, colonnaded court with 9 apses and a monumental entrance

**Remains:** walls at the intersection of via della Vite and via del Moretto (*opus quadratum*; these may be 8th c. AD, see text), walls along the via della Vite (peperino), columns found near the via della Vite (cipollino, africano, and granite), and fragments of the Temple’s or the portico’s entablature (marble architrave, frieze, and cornice); also extant are 8 columns (porphyry) re-used in Constantinople (see ‘Literary and epigraphical sources: Decorative program’ below)

**Literary and epigraphical sources:**

- **Cult of Sol under Aurelian:** Hist. Aug. Aurelian. 25, and Zos. 1.61.1 (mis-identified with Baal, see text).
- **Iconographic sources:** coins minted under Probus (RIC V 55 no. 354, 62 fol. nos. 414-7, and 74 nos. 536-8; Hill 1989, 18 fig. 16); plan by Palladio (RIBA X 17r), elevation by Palladio (RIBA XV 11v), plan and elevation by Ligorio (Cod. Turin. a. II 3 J 16), elevations by Ligorio (Coll. Albani-Dal Pozzo 10805 at Windsor, and BNP Cod. Ital. 1129 c. 315: “Questo è un lato del tempio del Sole … Le colonne che dividono i nicchi l’un dall’altro, sono di porfido; quelle colonne, che mostro più minore, che ornano i detti nicchi erano di marmo gialle macchiate di rosso”); maps by Ligorio (1553 and 1561), Parvinio (1565), Du Pérac (1573 and 1574), and Cartaro (1579).
- **Decoration:** jewelry, gems, clothing, paintings, and statues (see ‘Literary and epigraphical sources: Decorative program’ above)

**Excavations:** the walls and architectural fragments were found in 1867-1895

**Previous attributions:** in the Middle Ages, remains of the nymphaeum on the Pincio were attributed to the Temple (see Moneti 1992, 16, and #37). More recently, Moneti (1990, 16-8; vs. 1992, 16) identified the round temple on Palladio’s plan as an altar, while Richardson, jr. (1992, 364) sees it as the macellum theolus of the Forum Saurium.

| **ROME: Sol, temple reconstructed measurements** | **ideal proportional relationships** |
|-----------------|-----------------|-----------------|-----------------|
| **Palladio's Plan** | **meters** | **roman feet** | **roman feet** | **difference** | **%** | **to critical dimension** | **within columnar order** |
| Total ext. | 31.5 | 106.4 | 1 | 5/6 |
| Cells ext. * | 17.2 | 58.1 | 1 | 1 |
| Cells int. | 14.4 | 48.6 | 5/6 |
| Stair treads | 0.7 | 2.4 | 1/24 |
| Ambulatoiy (ext.) | 3.6 | 12.2 | 4/19 |
| Cella wall wid. | 1.4 | 4.7 | 1/12 |
| Door dep. | 1.4 | 4.7 | 1/12 |
| Door wid. | 2.15 | 7.26 | 1/8 |
| Lower column dia. (columns) ** | 1.4 | 4.7 | 1/12 | 1 |
| Intercolunnation | 4 | 13.5 | 3/13 | 2.7/8 |
| Interaxial | 5.4 | 18.2 | 5/16 | 3 7/8 |
| Interaxial dia. | 25.8 | 87.2 | 1 1/2 | 18 5/9 |
| Floor space (square measure) | 162.9 | 1855.1 | | |

| **Ligorio's Plan & Elevation** | | | | |
|-----------------|-----------------|-----------------|-----------------|
| **Cells ext. * | 23.1 | 78 | 1 |
| Cells int. | 16.5 | 55.7 | 5/7 |
| Total hei. | 30.9 | 104.5 | 1 1/3 |
| Porch len. | 19.9 | 67.2 | 6/7 |
| Porch wid. | 19.4 | 65.5 | 5/6 |
| Porch hei. | 26 | 87.8 | 1 1/8 |
| Intermediate block len. | 16.8 | 56.8 | 3/4 |
| Intermediate block wid. | 19.4 | 65.5 | 5/6 |
| Intermediate block hei. | 26.6 | 89.9 | 1 1/7 |
| Stair treads | 0.85 | 2.87 | 1/27 |
| Podium hei. | 6.3 | 21.3 | 2/7 |
| Cells wall wid. | 3.3 | 11.1 | 1/7 |
| Cells wall wid. (int. block) | 1.85 | 6.25 | 2/25 |
| Niche wid. (3 larger) | 2.6 | 8.8 | 1/9 |
| Niche wid. (4 smaller) | 2.1 | 7.1 | 1/11 |
| Door dep. | 3.1 | 10.3 | 2/15 |
| Door wid. | 7.8 | 26.4 | 1/3 |
| Total hei. (ext. columns) | 13.6 | 45.9 | 3/5 | 11 1/5 |
| Base dia. | 2.1 | 7.1 | 1/11 | 1 3/4 |
| Base hei. | 1.1 | 3.7 | 1/21 | 9/10 |
| Lower column dia. ** | 1.2 | 4.1 | 1/19 | 1 |
| Shaft hei. | 11 | 37.2 | 7/15 | 9 |
| Capital dia. | 1.05 | 3.55 | 1/22 | 6/7 |
| Capital hei. | 1.5 | 5.1 | 1/15 | 1 1/4 |
| Intercolumnation | 2.4 | 8.1 | 8 | -2.8% | 1/10 | 2 |
| Interaxial | 4.5 | 15.2 | 1/5 | 3 5/7 |
| Lower column dia. (int. columns) | 1 | 3.4 | 1/23 |
| Entablature hei. (porch ext.) | 2.6 | 8.8 | 1/9 |
| Architrave hei. | 1.6 | 5.4 | 2/29 |
| Frieze hei. | 1 | 3.4 | 1/23 |
| Entablature hei. (drum ext.) | 6.7 | 22.7 | 2/7 |
| Architrave hei. | 1.6 | 5.4 | 2/29 |
| Frieze hei. | 4.1 | 13.9 | 3/17 |
| Cornice wid. | 1 | 3.4 | 1/23 |
| Cornice hei. | 1 | 3.4 | 1/23 |
| Roof hei. (porch) | 7.3 | 24.7 | 5/16 |
| Roof dia. (drum) | 22.9 | 77.4 | 1 |
| Roof hei. | 5.8 | 19.6 | 1/4 |
| Oculus dia. | 5.8 | 19.6 | 1/4 |
| Floor space (drum) (square measure) | 213.8 | 2436.7 |
| Volume (cubic measure) | 622.5 | 18206.6 |

**Note:**
* critical dimension
** in relation to the lower column dia.

**Source:** Palladio's plan (RIBA X 17c).
Ligorio's plan and elevation (Cod. Turin. a. II 3J 16).
Castagnoli 1978, 372 fig. 1 and 375 fig. 4.
#53 ROME:
Sol, temple (after Ligorio)
Scale 1:400
#53 ROME:
Sol, temple (after Palladio)
Scale 1:200
Context: summit of the Esquiline (Regio V), at the intersection of via Labicana and via Praenestina (see Coarelli 1999h, 338); orientation unknown

Date: 477 BC: ancient sources (see 'Literary and epigraphical sources: Date' below)

Patron: unknown

Description: rectangular? (see text)

Remains: none

Literary and epigraphical sources:

- Date: Liv. 2.51.2 and Dion. Hal. 9.24 (Shrine mentioned in the context of Horatius’ victory).

Iconographic sources: coins minted under Antoninus Pius, ca. 158-160 AD (BMCEmp IV 135 no. 915, 137-8 nos. 926-30, 145 no. 967-9, 324, 348 no. 2046, 350-1 nos. 2053-7, 353, 355, and 357-9 nos. 2093-7)


#55 ROME: Venus, Shrine

**Context:** Horti Sallustiani (Regno VI; for the Horti's extent, see Santangelo 1941, 177-91 and Castelli 1988, 60), near the Porta Salaria and to the NE of S. Andrea in Quirinale (see Vacca in ‘Literary and epigraphical sources: Description’ below)

**Date:**
I. 1st c. BC (see text): inscription
II. under Nero: pipes (see Vacca in ‘Literary and epigraphical sources: Description’ below)

**Patron:**
I. Julius Theopompos in honor of Julius Caesar? (see text)
II. unknown

**Description:**
I. round peripteros (15.6 m. in dia., mainly marble) with 3-6 exterior and 4 interior stairs, 4 doors, 16 exterior (monolithic shafts, Corinthian or Composite capitals, see Vacca in ‘Literary and epigraphical sources: Description’ below) and 8 interior columns, and 12 exterior niches and a possible 12 interior niches

II as I

**Remains:**
I. part of the foundations, walls, pavement and wall revetment (alabaster, porphyry, serpentine and other marbles), columns (exterior: Caryatid marble, interior: oriental alabaster), the inscribed entablature, and interior stairs were visible during the Renaissance (see Vacca in ‘Literary and epigraphical sources: Description’ below); additional inscriptions have been discovered near the Temple

II. lead pipes found near the Temple (see Vacca below)

**Literary and epigraphical sources:**

**Inscriptions from 'Remains':** CIL VI 5.667: VENERI. HORTORVM.
SALLVSTIANORVM. C. SALLVSTIVS. DRVDVS. AEDITVVS. D. D (building inscription cited by Panvinio; for a comparable inscription, see Fulvio 1527, 14). CIL VI 122 and 4327 = ILS 3184 and 32451, and CIL VI 32468 (inscriptions citing dedications by aedilii and a minister al[mae] Veneris ex ho[rris] Sallustianis).

**Description:** Vacca et. al. 1704, 58: “Nelle vigne di Gabriele Vacca mio padre accanto Porta Salaria dentro le mura, vi è un fondo, dove si dice gli Orti Sallustiani. Cavandovi, trovò una fabbrica di forma ovata, con portico attorno ornato di colonne gialle, lunghe palmi di cipresso, scannellate, con capitelli, a basi corinzie. Dettov ovato aveva quattro entrate con scale, che scendevano in esso al pavimento fatto di mischi con belli scompartimenti, ed a ciascuna di dette entrate vi erano due colonne di alabastro orientale si trasparente, che il sole vi passava senza impedimento. Vi trovammo ... anche due condotti di piombo... con le seguenti lettere: NERONIS CLAUDIVS... Vi si trovarono anche molte medaglie sparse di Gordiano di metallo e d'argento... e quantità di musae...”

**Iconographic sources:** plans by P. Ligorio or O. Panvinio (Cod. Vat. Lat. 3439 f. 28r; text repeated in Cod. Par. fonds St. Germain 86 = Cod. Ital. 1129, and Hülsen 1889, 271-2); depicted on maps of Rome by Ligorio 1561, Panvinio 1565, Du Pérac 1573, 1574, and 1577, Cartaro 1576, and Nolli 1748 (copy of Bufalini, mid-1500s)

**Decoration:** multi-colored marble paving and revetment

**Excavations:** F. Vacca in the mid-1500s


### ROME: Venus, shrine

- **reconstructed measurements**
- **ideal proportional relationships**

<table>
<thead>
<tr>
<th></th>
<th>meters</th>
<th>roman feet</th>
<th>roman feet</th>
<th>difference</th>
<th>%</th>
<th>to critical dimension *</th>
<th>within columnar order **</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total ext.</strong></td>
<td>15.6</td>
<td>52.7</td>
<td></td>
<td></td>
<td></td>
<td>1 3/4</td>
<td></td>
</tr>
<tr>
<td><strong>Cella ext.</strong></td>
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<td>36.8</td>
<td></td>
<td></td>
<td></td>
<td>1 2/9</td>
<td></td>
</tr>
<tr>
<td><strong>Cella int.</strong></td>
<td>9.0</td>
<td>30.4</td>
<td>30</td>
<td>-1.3%</td>
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<td>1</td>
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</tr>
<tr>
<td><strong>Stair treads</strong></td>
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<td>1.49</td>
<td></td>
<td></td>
<td></td>
<td>1/20</td>
<td></td>
</tr>
<tr>
<td><strong>Ambulatory (ext.)</strong></td>
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<td>6.1</td>
<td></td>
<td></td>
<td></td>
<td>1/5</td>
<td></td>
</tr>
<tr>
<td><strong>Cella wall wid.</strong></td>
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<td>3</td>
<td>-2.3%</td>
<td></td>
<td>1/10</td>
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</tr>
<tr>
<td><strong>Niche dep.</strong></td>
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<td>1.7</td>
<td></td>
<td></td>
<td></td>
<td>1/10</td>
<td></td>
</tr>
<tr>
<td><strong>Niche wid.</strong></td>
<td>0.9</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>1/10</td>
<td></td>
</tr>
<tr>
<td><strong>Door dep. (ext.)</strong></td>
<td>0.91</td>
<td>3.07</td>
<td>3</td>
<td>-2.3%</td>
<td></td>
<td>1/10</td>
<td></td>
</tr>
<tr>
<td><strong>Door wid.</strong></td>
<td>1.1</td>
<td>3.7</td>
<td></td>
<td></td>
<td></td>
<td>1/8</td>
<td></td>
</tr>
<tr>
<td><strong>Door wid. (int.)</strong></td>
<td>0.9</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>1/10</td>
<td></td>
</tr>
<tr>
<td><strong>Lower column dia. (ext.)</strong></td>
<td>0.7</td>
<td>2.4</td>
<td></td>
<td></td>
<td></td>
<td>2/25</td>
<td>1</td>
</tr>
<tr>
<td><strong>Intercolumnation</strong></td>
<td>3.0</td>
<td>10.1</td>
<td>10</td>
<td>-1.0%</td>
<td></td>
<td>1/3</td>
<td>4 1/5</td>
</tr>
<tr>
<td><strong>Interaxial</strong></td>
<td>3.7</td>
<td>12.5</td>
<td></td>
<td></td>
<td></td>
<td>3/7</td>
<td>5 1/5</td>
</tr>
<tr>
<td><strong>Interaxial dia.</strong></td>
<td>14.8</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td>1 2/3</td>
<td>20 5/6</td>
</tr>
<tr>
<td><strong>Lower column dia. (int.)</strong></td>
<td>0.2</td>
<td>0.7</td>
<td></td>
<td></td>
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<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Intercolumnation</strong></td>
<td>0.9</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>1/10</td>
<td>4 2/7</td>
</tr>
<tr>
<td><strong>Interaxial</strong></td>
<td>1.1</td>
<td>3.7</td>
<td></td>
<td></td>
<td></td>
<td>1/8</td>
<td>5 2/7</td>
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<tr>
<td><strong>Interaxial dia.</strong></td>
<td>8.3</td>
<td>28</td>
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<td></td>
<td>14/15</td>
<td>40</td>
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<tr>
<td><strong>Floorspace (square measure)</strong></td>
<td>63.6</td>
<td>725.8</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Note:**
- *critical dimension*
- **in relation to the lower column dia.**

**Source:** Vacca and Panvinio.
#56 ROME: Vesta, Shrine

**Context:** the House of Augustus, Palatine (Regio X)

**Date:** 12 BC: Augustus’ succession to Pontifex Maximus, the Fasti Caeretani and Praenestini

(see ‘Literary and epigraphical sources: Foundation and date’ below)

**Patron:** Augustus

**Description:** round monopteros on 3-step krepis?, with Ionic columns?, an entablature, and a conical roof

**Remains:** none

**Literary and epigraphical sources:**


*Decorative scheme:* Ov. *Fast.* 6.295-6: esse diu stultus Vesta simulacra putavi / max didici curvo nulla subesse tholo (cult statue of Vesta, also see the *Fasti Caeretani* above). *CIL* X 6441 (Privernum inscription naming the Palladium). *Cic.* *Scaur.* 23.48, Liv. 27.26.14, and Dionys. 1.69.2.4 and 2.66.5 (more than one Palladium in existence?).

*R.Gest. div. Aug.* 21.2 (Augustus’ *dona ex manubis*).

**Iconographic sources:** Tiberian dupondii (*RIC* I 99 nos. 74-6 pl. 12, and Hill 1989, 32); Flavian aurei (*RIC* II 21 no. 59, 22 nos. 69a-b, 33 no. 157, 34 no. 162, 35 no. 171, 36 no. 180, and 41 no. 230, and Hill 1989, 32); Side A of the Sorrento Base (see text); the Palermo relief (see text); a drawing by G. A. Dosio (Scheda 2039, Gabinetto Disegni e Stampe degli Uffizi, see Lanciani 1883b, 185 fol., Cassatella 1990, and Cecamore 1994-1995, 12-3 fig. 7)

**Decoration:** a statue of Vesta; a copy of the Palladium? (see text); Augustus’ *dona ex manubis* (see ‘Literary and epigraphical sources: Decorative scheme’ above)

**Previous attributions:** often identified with Suetonius’ (*Nero* 31.1) *praecipua cenationum rotunda*, and Martial’s (2.59) *Caesarus tholus* (see Cecamore 1994-1995, 9-10). Cecamore (1994-1995, 9-10) attributed the remains of a round building and a portico discovered beneath the triclinium and nymphaea of the Domus Flavia (*opus testaceum* with marble revetment and an *opus sectile* pavement; see Carettoni 1949, 78-9, and Cassatella 1986) to this Shrine.


**Text:** 117-22.
### ROME: Vesta, shrine (Cecamore)

<table>
<thead>
<tr>
<th>actual measurements</th>
<th>meters</th>
<th>roman feet</th>
<th>roman feet</th>
<th>difference</th>
<th>ideal proportional relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cella ext. *</td>
<td>35.4</td>
<td>119.6</td>
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<tr>
<td>Cella int.</td>
<td>33.4</td>
<td>112.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cella wall wid.</td>
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<td>3.4</td>
<td></td>
<td></td>
<td>1/35</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>876.2</td>
<td>9993</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** * critical dimension

**Source:** Cecamore 1994-1995, 11-2 figs. 2-5.
#57 ROME: Vesta, Temple

**Context:** Roman Forum (Regio VIII); from the early 2nd c. BC, its precinct (ca. 7th c., restored in the 3rd and 1st c. BC, see Scott 1993a, 16, and 1999c, 130) was delimited by the Palatine ramp (W; see Steinby 1993), the Atrium Vestae (S, 7th c. BC), and the Regia (N, 7th c. BC); oriented E

**Date:**
I. 7th c. BC: ancient sources (see ‘Literary and epigraphical sources: Foundation and rebuildings’ below)
II. 3rd c. BC: ancient sources (see ‘Literary and epigraphical sources: Foundation and rebuildings’ below), ceramic finds, and the pavement level (see text)
III. 1st c. BC: coins (see ‘Iconographic sources’ below), ceramic finds, and an arch added to buttress the Temple’s foundations (W; see Scott 1993a, 11-3, and 1999b, 126)
IV. Neronian period: Tac. ann. 15.41 (see ‘Literary and epigraphical sources: Foundation and rebuildings’ below), CIL XV Suppl. 309-10 (brick stamps, see ‘Literary and epigraphical sources: Inscriptions from Remains’ below), and coins (see ‘Iconographic sources’ below)
V. Flavian period: coins (see ‘Iconographic sources’ below)
VI. Trajanic period: coins and reliefs (see ‘Iconographic sources’ below)
VII. Severan period: building remains and coins (see ‘Iconographic sources’ below)

**Patron:**
I. 7th c. BC: Numa
II. 3rd c. BC: unknown
III. 1st c. BC: Julius Caesar? (see text)
IV. Neronian period: Nero
V. Flavian period: Vespasian and Domitian
VI. Trajanic period: Trajan
VII. Severan period: Julia Domna

**Description:**
I. 7th c. BC: round? (see Ov. fast. 6.254-60 and 295-8)
II. 3rd c. BC: as I, though with its foundations (15.05 m. in dia., concrete) indented by a pit (2.50 m. by 2.47 m. by 2.45 m. by 2.30 m. per side and 4.5 m. deep, see Gjerstad 1960, 310)
III. 1st c. BC: as II.
IV. Neronian period: round with a stepped podium, Ionic columns, an entablature, and a dome
V. Flavian period: as IV.
VI. Trajanic period: round peripteros with a high podium, Ionic columns resting on plinths, grillwork, an entablature, and a dome topped by a finial
VII. Severan period: as VI (14.6 m. in dia., marble revetted), though with the Corinthian order (20 exterior columns and exterior and interior pilasters with Attic-Ionic bases, fluted shafts, and Corinthian capitals, and a Corinthian entablature)

**Remains:**
I. 7th c. BC: perimeter wall (capellaccio blocks)
II. 3rd c. BC: foundations (concrete with Anian and Grotta Oscura tufa aggregate faced with opus incertum)
III. 1st c. BC: tiles (terracotta) employed in refacing the pit, and fragments of the arch (travertine)
IV. Neronian period: rebuilding of a collapsed drain and the E perimeter wall
V. Flavian period: none
VI. Trajanic period: none
VII. Severan period: part of the podium incl. plinths (Luna marble revetment; the stratum of cement work may be a residue of additions to increase the height of the podium), the columns, the pilasters, the cella wall, the entablature, and the coffers (Luna marble)
Literary and epigraphical sources:

Inscriptions from 'Remains':

Location: Hor. sat. 1.9.1-43, Dionys. ant. 6.13, and Mart. epigr. 1.70.3-4 (near the lacus futurnae and the aedes Castoris).

Foundation and re buildings:

IV. Neronian period: Tac. ann. 15.41 and hist. 143 (Nero’s reconstruction of the delubrum Vestae cum Penatibus populi Romani).


Appearance:


Iconographic sources:
III. 1st c. BC: denarius of Q. Cassius, 57 BC, Rome (RRC I 452 nos. 428.1-2 pl. 52.2 and 3, and Cody 1973, 43-4) and cistophoric tetradrachms of C. Fannius, 49-48 BC, Ephesos, Apancia, Laodicea, and Tralles (Cody 1973, 44-7 and 49)

IV. Neronian period: aurei and denarii of Nero, after 64 AD, Rome (BMCEmp I clxxv, 213 nos. 104-6 pl. 40.10-3, and RIC I 153 nos. 61-2 pl. 18.61; cf. Fuchs 1969, 46 pl. 9, and 109).
V. Flavian period: coins (RIC II 21 nos. 59-60, 22 nos. 69a-b, 33 no. 157, 34 no. 162, 35 no. 171, 36 no. 180, 41 no. 230, 92 no. 659, 95 no. 690, and 97 no. 705; cf. Hill 1989, 32)
VI. Trajanic period: coins (RIC II 308 nos. 795-6), the Uffizi and Lateran reliefs (see text), drawings by an anonymous artist (Anonymous Destailleur), G. A. Dosio, G. da Sangallo (Temple’s exterior, see text), and O. Panvinio (Cod. Urs. Vat. 3439 f. 28, Temple’s interior)

VII. Severan period: coins of Julia Domna (RIC IV.1 171 nos. 584-7A pl. 9.10, 209 no. 868, 211 nos. 892a-4 pl. 11.6, 274 no. 392, 311 no. 594a-b, and 313 no. 607; cf. Cody 1973, 43 and Cecamore 1994-1995, 26 figs. 19-20) and of Caracalla (RIC IV.1 247 nos. 249-50, and BMCEmp V 450 nos. 101-2 pls. 70.5-6)

Decoration:
III. 1st c. BC: altar (Ov. fast. 4.731-4); serpent antefixes (see ‘Iconographic sources’ above)
IV. Neronian period: none
V. Flavian period: none
VI. Trajanic period: oak tree in the pit beside the Temple’s stairs (as on the Uffizi and Lateran reliefs, see Scott 1993b, 16)
VII. Severan period: sacrificial implements illustrated on the frieze course; statue of Vesta displayed within the Hadrianic Shrine of the Lares Praestites to the E (see Scott 1993a, 11 and 17, and Coarelli 1995k, 100 and 102)
Excavations:
VII. Severan period: restoration proposed by G. Boni in 1900, carried out by A. Bartoli in 1933 (fra Giocondo da Verona suggests that the Temple was nearly complete in 1489)
Text: 16-8, 39-40, 130, 164-6, and 216-7.
**ROME: Vesta, temple**

### actual measurements

<table>
<thead>
<tr>
<th></th>
<th>meters</th>
<th>roman feet</th>
<th>% difference</th>
<th>ideal proportional relationships to critical dimension *</th>
<th>within columnar order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cella ext.</td>
<td>10.9</td>
<td>36.8</td>
<td></td>
<td>3/4</td>
<td></td>
</tr>
<tr>
<td>Cella int.</td>
<td>9.7</td>
<td>32.8</td>
<td></td>
<td>2/3</td>
<td></td>
</tr>
<tr>
<td>Pit dep.</td>
<td>4.5</td>
<td>15.2</td>
<td>15</td>
<td>-1.3%</td>
<td>3/10</td>
</tr>
<tr>
<td>Foundation dia.</td>
<td>15.05</td>
<td>50.84</td>
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</tr>
<tr>
<td>Foundation hei.</td>
<td>2.17</td>
<td>7.33</td>
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<tr>
<td>Stair treads</td>
<td>0.24</td>
<td>0.81</td>
<td></td>
<td>1/62</td>
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<tr>
<td>Stair risers</td>
<td>0.23</td>
<td>0.78</td>
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<td>1/64</td>
<td></td>
</tr>
<tr>
<td>Stairway len.</td>
<td>3.02</td>
<td>10.2</td>
<td>10</td>
<td>-2.0%</td>
<td>1/5</td>
</tr>
<tr>
<td>Stairway wid.</td>
<td>1.1</td>
<td>3.7</td>
<td></td>
<td></td>
<td>2/27</td>
</tr>
<tr>
<td>Podium dia. at base (incl pedestals) *</td>
<td>14.6</td>
<td>49.3</td>
<td>50</td>
<td>1.4%</td>
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<tr>
<td>Podium dia. at base (without pedestals)</td>
<td>14.1</td>
<td>47.6</td>
<td>47.5</td>
<td>-0.2%</td>
<td>19/20</td>
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<td>Podium dia. at stylobate</td>
<td>13.4</td>
<td>45.3</td>
<td>45</td>
<td>-0.7%</td>
<td>9/10</td>
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<tr>
<td>Podium hei.</td>
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<td>5.07</td>
<td>5</td>
<td>-1.4%</td>
<td>1/10</td>
</tr>
<tr>
<td>Podium cornice wid.</td>
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<td>0.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambulatory (ext.)</td>
<td>1</td>
<td>3.4</td>
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<td>1/15</td>
<td></td>
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<tr>
<td>Cella wall wid.</td>
<td>0.6</td>
<td>2</td>
<td></td>
<td>1/25</td>
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</tr>
<tr>
<td>Door dep.</td>
<td>0.6</td>
<td>2</td>
<td></td>
<td>1/25</td>
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<tr>
<td>Door wid.</td>
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<td>8.61</td>
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<td>4/23</td>
</tr>
<tr>
<td>Total hei. (ext. columns, ext. and int. pilasters)</td>
<td>5</td>
<td>17</td>
<td></td>
<td>1/3</td>
<td>10</td>
</tr>
<tr>
<td>Base dia.</td>
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<td>2.4</td>
<td></td>
<td>1/21</td>
<td>1 2/5</td>
</tr>
<tr>
<td>Base hei.</td>
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<td>1.3</td>
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<td>3/4</td>
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<tr>
<td>Lower column dia. **</td>
<td>0.5</td>
<td>1.7</td>
<td></td>
<td>1</td>
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<tr>
<td>Shaft hei.</td>
<td>3.8</td>
<td>13</td>
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<td>7 2/3</td>
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<tr>
<td>Capital dia.</td>
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<td>2.4</td>
<td></td>
<td>1/21</td>
<td>1 2/5</td>
</tr>
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<td>Capital hei.</td>
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<td>2.4</td>
<td></td>
<td>1/21</td>
<td>1 2/5</td>
</tr>
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<td>Intercolumnation</td>
<td>1.3</td>
<td>4.4</td>
<td></td>
<td>2 3/5</td>
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</tr>
<tr>
<td>Interaxial</td>
<td>2</td>
<td>6.8</td>
<td></td>
<td>2/15</td>
<td>4</td>
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<tr>
<td>Interaxial dia.</td>
<td>14.3</td>
<td>48.3</td>
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<td>28 2/5</td>
</tr>
<tr>
<td>Entablature hei. (ext.)</td>
<td>1.9</td>
<td>6.25</td>
<td></td>
<td>1/8</td>
<td></td>
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<tr>
<td>Cornice hei.</td>
<td>0.4</td>
<td>1.25</td>
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<td>1/40</td>
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<tr>
<td>Floorspace (square measure)</td>
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<td>845.0</td>
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### reconstructed measurements

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<th>meters</th>
<th>roman feet</th>
<th>% difference</th>
<th>ideal proportional relationships to critical dimension *</th>
<th>within columnar order</th>
</tr>
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<tbody>
<tr>
<td>Total hei.</td>
<td>12.6</td>
<td>42.6</td>
<td></td>
<td>6/7</td>
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</tr>
<tr>
<td>Door hei.</td>
<td>4.4</td>
<td>14</td>
<td></td>
<td>3/10</td>
<td></td>
</tr>
<tr>
<td>Roof dia.</td>
<td>7.4</td>
<td>25</td>
<td></td>
<td>1/2</td>
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</tr>
<tr>
<td>Roof hei.</td>
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<td>7.4</td>
<td>7.5</td>
<td>1.4%</td>
<td>3/20</td>
</tr>
<tr>
<td>Oculus dia.</td>
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<td>5</td>
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<td>1/10</td>
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<tr>
<td>Volume (cubic measure)</td>
<td>96.2</td>
<td>1693.7</td>
<td></td>
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</tr>
</tbody>
</table>

**Note:**

* critical dimension

** In relation to the lower column dia.

**Source:** Scott 2000, 125-8 fig. 72.
#57 ROME:
Vesta, temple
Scale 1:100
Context: Sanctuary of the Great Gods; accessed via a processional road, which also leads to a propylon (4th c. BC), a Hieron (ca. Hellenistic period), the Hall of the Votive Gifts (Archaic period), and the Altar Court (4th c. BC); oriented toward the road (W)

Date:  
I. 285 BC: dedicatory inscription (see 'Literary and epigraphical sources: Attribution' below)  
II. Roman period: roof reconstruction

Patron:  
I. Arsinoe II, the wife of the Macedonian king Lysimachos (or Arsinoe, the queen of Egypt and wife of Ptolemy II, ca. 275; Roux 1992, 93)  
II. unknown

Description:  
I. drum (19.4 m. in dia., Thasian marble) with ring foundations, a 3-step krepis, a socle, a Doric door, 44 Corinthian (interior) and Doric (exterior) pilasters, a Doric (exterior) and an Ionic (interior) entablature, and a conical roof (see McCredie et al. 1992, 87-9)  
II as I. with a pyramidal roof (see McCredie et al. 1992, 89-91)

Remains:  
I. part of the foundations (sandstone), socle, cella walls, pilasters, entablatures (Thasian marble), "altars" (colored marble, see 'Decoration' below), and roof tiles (terracotta)  
II. part of the sima (Thasian marble) and the roof tiles (terracotta)

Literary and epigraphical sources:  
Attribution: IG XII.8 227 (dedicatory inscription, exterior architrave; see McCredie et al. 1992, 233-9).  
Decorative program: Paus. 5.20.9-10 (bronze acroteria).
Iconographic sources: relief from Cyzique (see Roux 1992, 222-5 fig. 143)  
Decoration: bronze acroteria; an ornamented orthostate course; socles or "altars" decorated with bocanias, garlands, and phiales or rosettes in the intercolumniations


Previous attributions: identified as an assembly and festival hall (see Seiler 1986, 114-5).


Text: 34-8.
<table>
<thead>
<tr>
<th>Actual Measurements</th>
<th>Ideal Proportional Relationships</th>
<th>Reconstructed Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cella ext.</td>
<td>19.4</td>
<td>4.2</td>
</tr>
<tr>
<td>Cella int.</td>
<td>17.2</td>
<td>1/5</td>
</tr>
<tr>
<td>Hei. to finial</td>
<td>16.85</td>
<td>4/5</td>
</tr>
<tr>
<td>Foundation dep.</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Foundation dia.</td>
<td>20.6</td>
<td></td>
</tr>
<tr>
<td>Stair treads</td>
<td>0.3</td>
<td>1/69</td>
</tr>
<tr>
<td>Stair risers</td>
<td>0.325</td>
<td>1/63</td>
</tr>
<tr>
<td>Krepis dia. at base</td>
<td>20.6</td>
<td>1</td>
</tr>
<tr>
<td>Krepis dia. at euthynteria</td>
<td>19.3</td>
<td></td>
</tr>
<tr>
<td>Krepis hei.</td>
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<td>1/26</td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>1.1</td>
<td>1/19</td>
</tr>
<tr>
<td>Cornice wid. (lower)</td>
<td>0.5</td>
<td>1/41</td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Door wid.</td>
<td>2.1</td>
<td>1/10</td>
</tr>
<tr>
<td>Door hei.</td>
<td>4.8</td>
<td>3/13</td>
</tr>
<tr>
<td>Door jamb</td>
<td>0.4</td>
<td>1/52</td>
</tr>
<tr>
<td>Door lintel</td>
<td>0.55</td>
<td>2/75</td>
</tr>
<tr>
<td>Total hei. (ext. pilasters)</td>
<td>2.9</td>
<td>1/7</td>
</tr>
<tr>
<td>Base wid.</td>
<td>0.46</td>
<td>1/45</td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.52</td>
<td>1/40</td>
</tr>
<tr>
<td>Lower column wid. **</td>
<td>0.46</td>
<td>1/45</td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>2.15</td>
<td>2/19</td>
</tr>
<tr>
<td>Capital wid.</td>
<td>0.48</td>
<td>1/43</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.22</td>
<td>1/94</td>
</tr>
<tr>
<td>Intercolunnation</td>
<td>0.9</td>
<td>1/23</td>
</tr>
<tr>
<td>Interaxial</td>
<td>1.36</td>
<td>1/15</td>
</tr>
<tr>
<td>Total hei. (int. pilasters)</td>
<td>2.89</td>
<td>1/7</td>
</tr>
<tr>
<td>Base wid.</td>
<td>0.475</td>
<td>1/43</td>
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<tr>
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<td>0.115</td>
<td>1/3</td>
</tr>
<tr>
<td>Lower column wid. **</td>
<td>0.35</td>
<td>1/59</td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>2.425</td>
<td>2/17</td>
</tr>
<tr>
<td>Capital wid.</td>
<td>0.45</td>
<td>1/46</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.35</td>
<td>1/59</td>
</tr>
<tr>
<td>Intercolunnation</td>
<td>0.7</td>
<td>1/30</td>
</tr>
<tr>
<td>Interaxial</td>
<td>1.175</td>
<td>2/35</td>
</tr>
<tr>
<td>Entablature hei. (ext.)</td>
<td>1.97</td>
<td>2/21</td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.6</td>
<td>1/35</td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.9</td>
<td>1/23</td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>0.8</td>
<td>1/26</td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.47</td>
<td>1/44</td>
</tr>
<tr>
<td>Entablature hei. (int.)</td>
<td>0.65</td>
<td>1/32</td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.45</td>
<td>1/46</td>
</tr>
<tr>
<td>Roof dia.</td>
<td>20.6</td>
<td>1</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>232.4</td>
<td></td>
</tr>
<tr>
<td>Volume (cubic measure)</td>
<td>387.5</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**  
* critical dimension  
** in relation to the lower column dia.

**Source:**  
McCredie et al. 1992, 29-91 pls. ???.
Chart #58: SAMOTHRAKE: Arsinoeion

Proportion of critical dimension

Critical dimension = Krepis dia. at base
#58 SAMOTHРАCE: 
Arsinoeion
Scale 1:200
Context: Agora, sited slightly off-center within a rectangular court defined by colonaded porticoes; oriented SW
Date: Hadrianic period: coins (see ‘Iconographic sources’ below) and architectural comparanda (see text)
Description: round peripteros (10.7 m. in dia., mainly marble) on a high podium fronted by 9 steps, with 12 columns and pilasters (Attic-Ionic bases, fluted shafts, and Corinthian capitals), 2 exterior Corinthian entablatures (3-fascia architraves, decorated frieze courses, modillion cornices, and simas with lion-head water spouts), a drop ceiling (see ‘Decoration’ below), coffers, and a conical roof topped by a pomegranate (see ‘Iconographic sources’ below)
Remains: part of the foundations and the podium (travertine and rubble fill incl. a broken column shaft, revetted in white marble), the steps, the columns, the pilasters, the entablatures, the ceiling, the coffers (white marble), and the roof (marble-plated? opus caementicum); a statue base may be embedded in the foundations (see Mansel and Bean 1956, 35)
Iconographic sources: coins minted under Gallienius (Vienna no. 29256) and at Salonina (Cambridge no. 8929; see Mansel and Bean 1956, figs. 47-8)
Decoration: ceiling decorated with 12 zodiac signs (see text); a cult statue of Tyche? inside the Temple (see ‘Iconographic sources’ above and text)
Excavations: F. Beaufort in 1811, E. Petersen in 1882-1885, and A. Mansel in the 1950s
<table>
<thead>
<tr>
<th>Actual Measurements</th>
<th>#</th>
<th>Ideal Proportional Relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>meters</td>
<td>roman feet</td>
</tr>
<tr>
<td>Total ext.</td>
<td>10.7</td>
<td>36.1</td>
</tr>
<tr>
<td>Cella ext. *</td>
<td>6.2</td>
<td>20.9</td>
</tr>
<tr>
<td>Cella int.</td>
<td>5.45</td>
<td>18.4</td>
</tr>
<tr>
<td>Total hei.</td>
<td>15.8</td>
<td>53.4</td>
</tr>
<tr>
<td>Stair treads</td>
<td>0.32</td>
<td>1.1</td>
</tr>
<tr>
<td>Stair treads (lowest)</td>
<td>0.67</td>
<td>2.3</td>
</tr>
<tr>
<td>Stair risers</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Stair risers (lowest)</td>
<td>0.35</td>
<td>1.2</td>
</tr>
<tr>
<td>Stairway len.</td>
<td>3.65</td>
<td>12.3</td>
</tr>
<tr>
<td>Stairway wid.</td>
<td>4</td>
<td>13.5</td>
</tr>
<tr>
<td>Podium dia. at base</td>
<td>10.37</td>
<td>35</td>
</tr>
<tr>
<td>Podium hei.</td>
<td>2.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Podium cornice wid. (lower)</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Podium cornice hei.</td>
<td>0.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Podium cornice wid. (upper)</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Podium cornice hei.</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Ambulatory (ext.)</td>
<td>1</td>
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</tr>
<tr>
<td>Cella wall wid.</td>
<td>0.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Door dep.</td>
<td>0.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Door wid.</td>
<td>1.7</td>
<td>5.7</td>
</tr>
<tr>
<td>Door hei.</td>
<td>4.2</td>
<td>14.2</td>
</tr>
<tr>
<td>Door lintel</td>
<td>0.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Total hei. (ext. columns)</td>
<td>6.6</td>
<td>22.3</td>
</tr>
<tr>
<td>Base dia.</td>
<td>1</td>
<td>3.4</td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.48</td>
<td>1.62</td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.66</td>
<td>2.2</td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>5.2</td>
<td>17.6</td>
</tr>
<tr>
<td>Capital dia.</td>
<td>0.8</td>
<td>2.7</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.9</td>
<td>3.3</td>
</tr>
<tr>
<td>Intercolonnation</td>
<td>1.6</td>
<td>5.4</td>
</tr>
<tr>
<td>Interaxial</td>
<td>2.6</td>
<td>8.8</td>
</tr>
<tr>
<td>Interaxial dia.</td>
<td>9.5</td>
<td>32.1</td>
</tr>
<tr>
<td>Total hei. (ext. pilasters)</td>
<td>6.6</td>
<td>22.3</td>
</tr>
<tr>
<td>Base wid.</td>
<td>0.6</td>
<td>2</td>
</tr>
<tr>
<td>Shaft dep.</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>5.2</td>
<td>17.6</td>
</tr>
<tr>
<td>Intercolonnation</td>
<td>1.3</td>
<td>4.4</td>
</tr>
<tr>
<td>Interaxial</td>
<td>1.9</td>
<td>6.4</td>
</tr>
<tr>
<td>Entablature hei. (both ext.)</td>
<td>1.16</td>
<td>3.92</td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.38</td>
<td>1.28</td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.38</td>
<td>1.28</td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>0.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Coffrer len</td>
<td>2.4</td>
<td>8.1</td>
</tr>
<tr>
<td>Coffrer wid.</td>
<td>0.63</td>
<td>2.1</td>
</tr>
<tr>
<td>Roof dia.</td>
<td>10.6</td>
<td>35.8</td>
</tr>
<tr>
<td>Roof hei.</td>
<td>5.9</td>
<td>19.9</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>23.3</td>
<td>265.9</td>
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<tr>
<td>Volume (cubic measure)</td>
<td>453.5</td>
<td>16771.0</td>
</tr>
</tbody>
</table>

Note: * critical dimension
** in relation to the lower column dia.

Source: Mansel and Bean 1956, 31-7 figs. 31-8 and 47-8, and pls 37-8, 42 and 46.
#59 SIDE:
Tyche, temple
Scale 1:100
#60 STABIAE AREA: Genius, Temple

**Context:** beside the border of Nocera or near the Madonna delle Grazie or by the Ponte S. Marco; fronted by a rectangular altar (see Altmann 1906, 45)

**Date:** 2nd c. BC: prior to Sulla’s destruction of the city in 89 BC (see Beloch 1890, 249)

**Description:** round peripteros with 14 columns

**Remains:** entablature? (see ‘Literary and epigraphical sources: Attribution’ below)

**Literary and epigraphical sources:**

- **Attribution:** IN 2173 Mus. Naz. = CIL X 772 (building inscription, entablature?). Vitr. 1.2;
  Fest. p. 24.10 and 33.10 L (aedes geni).


**Text:** 62.
#61 STYMPHALOS: Artemis, Temple

**Context:** Sanctuary of Artemis, in the Agora below the Acropolis (4th c. BC); the Sanctuary (82 m. long by 35 m. wide) is limited by the Acropolis (N) and temenos walls on 3 sides; the Temple is oriented towards the open court (NE)

**Date:** 4th c. BC: terracotta finds, and building materials and techniques comparable to 4th c. BC fortifications (see Seiler 1986, 125-6)

**Description:** round (15.5 m. long by 5.60-7.50 m. wide; feldspar) with 2-column, 3-step pronaoos, a rectangular adyton and a drum (7.5 m. in dia.)

**Remains:** most of the socle (irregular feldspar blocks) and some roof tiles (terracotta)

**Literary and epigraphical sources:**
- **Sanctuary of Artemis:** Paus. 8.22.2 and 7 (worship linked to a natural spring).
- **Decorative program:** Paus. 8.22.7 (cult statue).

**Decoration:** gilded wooden cult statue (see 'Literary and epigraphical sources: Decorative program' above)

**Excavations:** A. Orlandos in 1924-1927

**Previous attributions:** Robert (1939, 383) identified it as a chthonic heroon based on its similarity to prehellenic tholoi fronted by dromoi.


**Text:** 34-8.
<table>
<thead>
<tr>
<th>STYMPHALOS: Artemis, temple</th>
<th>ideal proportional relationships to critical dimension *</th>
<th>within columnar order **</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>actual measurements</strong></td>
<td><strong>meters</strong></td>
<td></td>
</tr>
<tr>
<td>Total len.</td>
<td>15.5</td>
<td>2 1/15</td>
</tr>
<tr>
<td>Cella ext.</td>
<td>7.5</td>
<td>1</td>
</tr>
<tr>
<td>Cella int. (max.)</td>
<td>6</td>
<td>4/5</td>
</tr>
<tr>
<td>Porch len.</td>
<td>3.8</td>
<td>1/2</td>
</tr>
<tr>
<td>Porch wid.</td>
<td>5.6</td>
<td>3/4</td>
</tr>
<tr>
<td>Intermediate block len.</td>
<td>4.9</td>
<td>2/3</td>
</tr>
<tr>
<td>Intermediate block wid.</td>
<td>5.6</td>
<td>3/4</td>
</tr>
<tr>
<td>Stair treads</td>
<td>0.78</td>
<td>2/19</td>
</tr>
<tr>
<td>Stairway len.</td>
<td>0.78</td>
<td>2/19</td>
</tr>
<tr>
<td>Stairway wid.</td>
<td>1.93</td>
<td>1/4</td>
</tr>
<tr>
<td>Podium dia. at base *</td>
<td>7.5</td>
<td>1</td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>0.7</td>
<td>1/11</td>
</tr>
<tr>
<td>Door dep. (adyton to cella)</td>
<td>1.1</td>
<td>1/7</td>
</tr>
<tr>
<td>Door wid.</td>
<td>2.2</td>
<td>2/7</td>
</tr>
<tr>
<td>Door dep. (pronaos to adytos)</td>
<td>0.45</td>
<td>3/50</td>
</tr>
<tr>
<td>Door wid.</td>
<td>1.95</td>
<td>13/50</td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.6</td>
<td>2/25</td>
</tr>
<tr>
<td>Intercolumnation (wall to columns)</td>
<td>0.8</td>
<td>2/19 1/3</td>
</tr>
<tr>
<td>Intercolumnation</td>
<td>1.3</td>
<td>4/23</td>
</tr>
<tr>
<td>Interaxial</td>
<td>1.9</td>
<td>1/4</td>
</tr>
<tr>
<td>Floor space (square meters)</td>
<td>28.3</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**  
* critical dimension  
** in relation to the lower column dia.

**Source:** Seiler 1986, 120-9 figs. ??
#61 STYMPHALOS:
Artemis, temple
Scale 1:100
#62 TERMESOS: Rotunda

**Context:** Agora, to the E of the city’s main temple complex

**Date:** late Hellenistic period: closest architectural comparanda (mainly the Monument of Lysicrates, Athens #3)

**Description:** drum (2.34 m. in dia., marble) on a high 3-step socle with 6 exterior pilasters (Attic bases and Corinthian capitals), an Ionic entablature, and a curved roof

**Remains:** most of the base (stone core with marble revetment), euthynteria, cella wall, pilasters, entablature, drop ceiling and curved roof (marble)

**Decoration:** ceiling depicting the head of Medusa in relief within a geometric border; 3-fascia architrave and frieze course with acanthus and ivy; roof with simulated scale-shaped tiles

**Excavations:** K. Lanckoronski in the 1880s

**Previous attributions:** identified as a commemorative monument (see Seiler 1986, 138-43)

**Bibliography:** Lanckoronski 1892, 46, 105-7 and pl. 17. Seiler 1986, 138-43.

**Text:** 34-8.
<table>
<thead>
<tr>
<th><strong>TERMESSOS: Rotunda</strong></th>
<th><strong>Ideal proportional relationships to critical dimension</strong></th>
<th><strong>within columnar order</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Actual measurements</strong></td>
<td><strong>meters</strong></td>
<td><strong>Dimension</strong></td>
</tr>
<tr>
<td>Total ext.</td>
<td>2.82</td>
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</tr>
<tr>
<td>Drum int.</td>
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<td>1/2</td>
</tr>
<tr>
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<td>2.05</td>
<td>3/4</td>
</tr>
<tr>
<td>Total hei. (drum and socle)</td>
<td>7.75</td>
<td>2 4/5</td>
</tr>
<tr>
<td>Total hei. (drum)</td>
<td>4.73</td>
<td>1 5/7</td>
</tr>
<tr>
<td>Stair treads</td>
<td>0.26</td>
<td>3/32</td>
</tr>
<tr>
<td>Stair risers</td>
<td>0.26</td>
<td>3/32</td>
</tr>
<tr>
<td>Socle wid. at base *</td>
<td>2.78</td>
<td>1</td>
</tr>
<tr>
<td>Socle wid. below euthynteria</td>
<td>2.78</td>
<td>1</td>
</tr>
<tr>
<td>Socle hei.</td>
<td>2.24</td>
<td>4/5</td>
</tr>
<tr>
<td>Euthynteria wid.</td>
<td>2.52</td>
<td>8/9</td>
</tr>
<tr>
<td>Euthynteria hei.</td>
<td>0.24</td>
<td>2/23</td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>0.29</td>
<td>2/19</td>
</tr>
<tr>
<td>Door dep.</td>
<td>0.54</td>
<td></td>
</tr>
<tr>
<td>Door wid.</td>
<td>0.75</td>
<td>3/11</td>
</tr>
<tr>
<td>Door hei.</td>
<td>2.95</td>
<td>1 1/16</td>
</tr>
<tr>
<td>Total hei. (pillasters)</td>
<td>2.95</td>
<td>1 1/16</td>
</tr>
<tr>
<td>Base dia.</td>
<td>1.2</td>
<td>3/7</td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.2</td>
<td>1/14</td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.28</td>
<td>1/10</td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>2.5</td>
<td>9/10</td>
</tr>
<tr>
<td>Capital dia.</td>
<td>0.35</td>
<td>1/8</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.35</td>
<td>1/8</td>
</tr>
<tr>
<td>Intercolunnation</td>
<td>0.75</td>
<td>3/11</td>
</tr>
<tr>
<td>Interaxial</td>
<td>1.95</td>
<td>5/7</td>
</tr>
<tr>
<td>Entablature hei. (ext.)</td>
<td>1.6</td>
<td>4/7</td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.5</td>
<td>2/11</td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.5</td>
<td>2/11</td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>0.17</td>
<td>1/16</td>
</tr>
<tr>
<td>Cornice hei.</td>
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<td>4/19</td>
</tr>
<tr>
<td>Roof Width</td>
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<tr>
<td>Roof Height</td>
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</tr>
<tr>
<td>Floorspace (square measure)</td>
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<td></td>
</tr>
<tr>
<td>Volume (cubic measure)</td>
<td>3.2</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**  
* critical dimension  
** in relation to the lower column dia.

**Source:** Lanckoronski 1892, 105 pl.  
#62 TERMESSOS:
Rotunda
Scale 1:25
Context: Hadrian's Villa, on an artificial terrace above the Valle di Tempe; formed the centerpiece of a nymphaeum (known as the Ninfeo Fede) consisting of a hemicycle (ca. 57 m. in dia.) and 2 side apses (ca. 17 m. in dia. and 7 m. deep, see de Franceschini 1991, 140-2); oriented towards a major road (NW)

Date: Hadrianeic period; location and a brick stamp from the nymphaeum (see 'Literary and epigraphical sources: Inscriptions from Remains' below)

Patron: Hadrian

Description: round monopteros? (16.5 m. in dia., marble, see text) with 20 columns (plinths, fluted shafts, Doric capitals), a Doric entablature, coffers, and a conical roof? (see text)

Remains: part of 5 columns, the entablature, and the coffers (marble); set inside a nymphaeum (marble-revetted opus testaceum), resting on a terrace (opus caementicum); a statue of Aphrodite (marble) was found nearby

Literary and epigraphical sources:
- Inscriptions from 'Remains': P.SERVII.FIRM.I.OP.DE FGL / SEIAES.ISAVRIC/E
  (brick stamps, W wall of the nymphaeum, see Bloch 1937, 115 no. 1425).
- Iconographic sources: plans of Piranesi (1781; for sources, see Love 1970, 154) and Rossini (1826; for sources, see Aurigemma 1996, 44)


Excavations: Conte Fede in the 1700s (nymphaeum), J. Martin and M. Boussois in 1913 (monopteros), and R. Vighi in 1958 (statue of Aphrodite); Vighi's restoration efforts continued into the early 1990s

Previous attributions: Piranesi (see Aurigemma 1996, 45) suggested that the Shrine was dedicated to the nymphs


<table>
<thead>
<tr>
<th>Actual Measurements</th>
<th>Ideal Measurements</th>
<th>Ideal Proportional Relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>meters</td>
<td>roman feet</td>
</tr>
<tr>
<td>Total ext. at euthyneteria *</td>
<td>16.5</td>
<td>55.7</td>
</tr>
<tr>
<td>Euthyneteria hei.</td>
<td>0.35</td>
<td>1.18</td>
</tr>
<tr>
<td>Total hei. (columns)</td>
<td>5</td>
<td>16.9</td>
</tr>
<tr>
<td>Plinth wid.</td>
<td>1.3</td>
<td>4.4</td>
</tr>
<tr>
<td>Plinth hei.</td>
<td>0.25</td>
<td>0.8</td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.7</td>
<td>2.4</td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>4.35</td>
<td>14.7</td>
</tr>
<tr>
<td>Capital wid.</td>
<td>0.875</td>
<td>2.96</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Intercolumnnation</td>
<td>1.8</td>
<td>6.1</td>
</tr>
<tr>
<td>Interaxial</td>
<td>3.1</td>
<td>10.5</td>
</tr>
<tr>
<td>Interaxial dia.</td>
<td>15.2</td>
<td>51.4</td>
</tr>
<tr>
<td>Entablature hei. (ext.)</td>
<td>1.75</td>
<td>5.9</td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.65</td>
<td>2.2</td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.6</td>
<td>2</td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>213.8</td>
<td>2436.7</td>
</tr>
</tbody>
</table>

Reconstructed Measurements:

| Cella int.                  | 11.1    | 37.5       |            | 2/3          |                      |                         |
| Cella ext.                  | 11.7    | 39.5       |            | 5/7          |                      |                         |
| Ambulatory (ext.)           | 1.1     | 3.7        |            | 1/15         |                      |                         |
| Cella wall wid.             | 0.3     | 1          |            | 1/56         |                      |                         |
| Door dep.                   | 0.3     | 1          |            | 1/56         |                      |                         |
| Door wid.                   | 6.4     | 21.6       | 22         | 1.9%         | 2/5                  |                         |
| Floorspace (square measure) | 96.8    | 1104.5     |            |              |                      |                         |

Note:  * Critical dimension  
** In relation to the lower column dia.

Source:  de Franceschini 1991, 140-2 and 446-50, figs. ??
#63 TIBUR:
Aphrodite, shrine
Scale 1:200
#64 TIBUR: Round Temple

**Context:** Acropolis, on an artificial extension next to a rectangular temple (1st half of the 2nd c. BC, N)

**Date:**
I. late 2nd c. BC: use of tufa opus incertum and details of the capitals, molding and coffers
II. 83 BC (re-dedicated?, see text): the letter forms and content of the Temple's inscription
   (see 'Literary and epigraphical sources: Inscriptions from Remains' below and text)

**Patron:**
I. a local magistrate or a priestly college
II. L. Gellius Poplicola (see text)

**Description:**
I. peristero (14.25 m. in dia., tufa and travertine) with a high podium accessed via an 11-step stairway, 18 Corinthian columns, an ionic architrave, 2 windows, and a conical roof; a treasury is embedded in its walls
II as I.

**Remains:**
I. most of the foundations, podium, stairwell, and much of the cella wall (all of tufa opus incertum and travertine opus quadratum), columns, door and window frames, the entablature, and the treasury (travertine)
II. building inscription (see 'Literary and epigraphical sources: Inscriptions from Remains' below)

**Literary and epigraphical sources:**

**Inscription from 'Remains':**
II. *CIL XIV 3573: [...]E L GELLIO LF[...]

**Location and attribution:**
I. Dion. Hal. 4.62.5 (repository for the Sibyline books).

**Decorative scheme:** Lact. inst. 1.6.12 (cult image of Albuna tenens in manu librnum).

**Iconographic sources:** drawings by G. da Sangallo, A. Dosio and an anonymous artist whose work is in the Wiener Hofbibliothek (see Delbrueck 1907-1912, 21-2, and Giuliani 1970, 132-3)

**Decoration:** statue of Albuna (see 'Literary and epigraphical sources: Decorative scheme' above); first style stucco work

**Excavations:** visible since antiquity

**Previous attributions:** attributed to Vesta, Tiburnus, and Hercules Saxanus (see Giuliani 1970, 122-3)


**Text:** 55-7.
### TIBUR: Rotunda

<table>
<thead>
<tr>
<th>Actual Measurements</th>
<th>Ideal Measurements</th>
<th>Ideal Proportional Relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>meters</td>
<td>roman feet</td>
</tr>
<tr>
<td>Cella ext.</td>
<td>8.71</td>
<td>29.42</td>
</tr>
<tr>
<td>Cella int.</td>
<td>7.25</td>
<td>24.49</td>
</tr>
<tr>
<td>Hei. to roof</td>
<td>10.77</td>
<td>36.34</td>
</tr>
<tr>
<td>Stair treads</td>
<td>0.28</td>
<td>0.95</td>
</tr>
<tr>
<td>Stairway len.</td>
<td>3.08</td>
<td>10.41</td>
</tr>
<tr>
<td>Stairway wid.</td>
<td>2.8</td>
<td>9.5</td>
</tr>
<tr>
<td>Podium dia. at base *</td>
<td>14.25</td>
<td>48.14</td>
</tr>
<tr>
<td>Podium dia. at stylobate</td>
<td>14.25</td>
<td>48.14</td>
</tr>
<tr>
<td>Podium hei.</td>
<td>2.39</td>
<td>8.07</td>
</tr>
<tr>
<td>Podium cornice wid.</td>
<td>0.3</td>
<td>1</td>
</tr>
<tr>
<td>Podium cornice hei. (lower)</td>
<td>0.35</td>
<td>1.18</td>
</tr>
<tr>
<td>Podium cornice hei. (upper)</td>
<td>0.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Stylobate wid.</td>
<td>3.52</td>
<td>11.89</td>
</tr>
<tr>
<td>Stylobate hei.</td>
<td>0.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Ambulatory (ext.)</td>
<td>1.51</td>
<td>5.1</td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>0.72</td>
<td>2.43</td>
</tr>
<tr>
<td>Door dep.</td>
<td>0.83</td>
<td>2.8</td>
</tr>
<tr>
<td>Door wid.</td>
<td>2.375</td>
<td>8.02</td>
</tr>
<tr>
<td>Door hei.</td>
<td>5.4</td>
<td>18.2</td>
</tr>
<tr>
<td>Door jamb</td>
<td>0.6</td>
<td>2</td>
</tr>
<tr>
<td>Door lintel</td>
<td>1.27</td>
<td>4.29</td>
</tr>
<tr>
<td>Window dep.</td>
<td>0.75</td>
<td>2.53</td>
</tr>
<tr>
<td>Window wid.</td>
<td>1.17</td>
<td>3.95</td>
</tr>
<tr>
<td>Window hei.</td>
<td>3</td>
<td>10.1</td>
</tr>
<tr>
<td>Window sill</td>
<td>0.24</td>
<td>0.81</td>
</tr>
<tr>
<td>Window jamb</td>
<td>0.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Window lintel</td>
<td>0.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Total hei. (columns)</td>
<td>7.1</td>
<td>23.98</td>
</tr>
<tr>
<td>Base dia.</td>
<td>1</td>
<td>3.5</td>
</tr>
<tr>
<td>Base hei.</td>
<td>0.195</td>
<td>0.66</td>
</tr>
<tr>
<td>Lower column dia. **</td>
<td>0.78</td>
<td>2.63</td>
</tr>
<tr>
<td>Shaft hei.</td>
<td>6.168</td>
<td>20.84</td>
</tr>
<tr>
<td>Capital dia.</td>
<td>0.65</td>
<td>2.2</td>
</tr>
<tr>
<td>Capital hei.</td>
<td>0.78</td>
<td>2.63</td>
</tr>
<tr>
<td>Intercolumnation</td>
<td>1.2</td>
<td>4.1</td>
</tr>
<tr>
<td>Interaxial</td>
<td>2.2</td>
<td>7.5</td>
</tr>
<tr>
<td>Interaxial dia.</td>
<td>12.83</td>
<td>43.34</td>
</tr>
<tr>
<td>Entablature hei.</td>
<td>1.41</td>
<td>4.76</td>
</tr>
<tr>
<td>Architrave hei.</td>
<td>0.38</td>
<td>1.29</td>
</tr>
<tr>
<td>Frieze hei.</td>
<td>0.47</td>
<td>1.59</td>
</tr>
<tr>
<td>Dentil hei.</td>
<td>0.1</td>
<td>0.3</td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>0.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.46</td>
<td>1.55</td>
</tr>
<tr>
<td>Floor space (square measure)</td>
<td>41.3</td>
<td>471.1</td>
</tr>
</tbody>
</table>

Note: * critical dimension
** in relation to the lower column dia.

Source: Delbrueck 1907, ??
TIBUR: Theater Shrine

Context: the South Theater (max. dia. of 50 m.), Hadrian’s Villa; set within a trapezoidal precinct near the summit of the cavea.

Date: Hadrianic period; location

Patron: Hadrian

Description: drum (9.35 m. in dia., opus reticulatum) topped by a dome, possibly preceded by a pronaos with 4 columns (Attic-Ionic bases?, fluted shafts, Ionic capitals; see text and Ligorio in ‘Decoration’ below); may have contained a statue base.

Remains: much of the drum (tufa? opus reticulatum); fragments of a statue of Hercules (marble)

Iconographic sources: drawings by Ligorio, Contini, Piranesi, Nibby, and Pannini (see text and Hanson 1959, 72-3, for sources; for Pannini, see MacDonald and Pinto 1995, figs. 157 and 159-60)

Decoration: pronaos: 3 statues incl. Hercules (see text), and a multi-colored pavement (red, yellow, white, and green marbles; for Ligorio’s description, see Nibby 1848-1849, 700); MacDonald and Pinto (1995, 130) reconstruct a gray marble pavement for the precinct.

Excavations: visible since the Renaissance

Previous attributions: Wieseler (1851, 18; vs. MacDonald and Pinto 1995, 130) suggested that the platform served as an Imperial box.


### TIBUR: shrine

#### actual measurements

<table>
<thead>
<tr>
<th></th>
<th>meters</th>
<th>roman feet (ideal)</th>
<th>roman feet (proportional)</th>
<th>% difference</th>
<th>ideal relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cella ext.*</td>
<td>9.35</td>
<td>31.59</td>
<td>32</td>
<td>1.3%</td>
<td>1</td>
</tr>
<tr>
<td>Cella int.</td>
<td>7.25</td>
<td>24.49</td>
<td>24</td>
<td>-2.0%</td>
<td>3/4</td>
</tr>
<tr>
<td>Cella wall wid.</td>
<td>1.05</td>
<td>3.55</td>
<td>24</td>
<td>-2.0%</td>
<td>1/9</td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>0.5</td>
<td>1.7</td>
<td>1/9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Door dep.</td>
<td>1</td>
<td>3.4</td>
<td>2/19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Door wid. (outside dim.)</td>
<td>2.9</td>
<td>9.8</td>
<td>5/16</td>
<td>2/19</td>
<td></td>
</tr>
<tr>
<td>Door wid. (inside dim.)</td>
<td>2.6</td>
<td>8.8</td>
<td>3/11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floorspace (square measure)</td>
<td>41.3</td>
<td>471.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### reconstructed measurements

<table>
<thead>
<tr>
<th></th>
<th>meters</th>
<th>roman feet (ideal)</th>
<th>roman feet (proportional)</th>
<th>% difference</th>
<th>ideal relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hei.</td>
<td>13</td>
<td>43.9</td>
<td>44</td>
<td>0.2%</td>
<td>1 3/8</td>
</tr>
<tr>
<td>Door hei.</td>
<td>5.5</td>
<td>18.6</td>
<td></td>
<td></td>
<td>4/7</td>
</tr>
<tr>
<td>Door jamb</td>
<td>0.5</td>
<td>1.7</td>
<td></td>
<td></td>
<td>1/19</td>
</tr>
<tr>
<td>Door lintel</td>
<td>0.5</td>
<td>1.7</td>
<td></td>
<td></td>
<td>1/19</td>
</tr>
<tr>
<td>Total hei. (columns)</td>
<td>5.5</td>
<td>18.6</td>
<td></td>
<td></td>
<td>4/7</td>
</tr>
<tr>
<td>Base dia.</td>
<td>0.6</td>
<td>2</td>
<td></td>
<td></td>
<td>1/16</td>
</tr>
<tr>
<td>Cornice wid.</td>
<td>0.4</td>
<td>1.4</td>
<td></td>
<td></td>
<td>1/23</td>
</tr>
<tr>
<td>Cornice hei.</td>
<td>0.7</td>
<td>2.4</td>
<td></td>
<td></td>
<td>3/40</td>
</tr>
<tr>
<td>Roof dia.</td>
<td>9.35</td>
<td>31.59</td>
<td>32</td>
<td>1.3%</td>
<td>1</td>
</tr>
<tr>
<td>Roof hei.</td>
<td>4.7</td>
<td>15.9</td>
<td>16</td>
<td>0.6%</td>
<td>1/2</td>
</tr>
<tr>
<td>Volume (cubic measure)</td>
<td>258.7</td>
<td>8889.9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** * critical dimension

**Source:** Pannini's drawing.
#65 TIBUR:
Theater shrine
Scale 1:100
NOTES ON THE TABLES AND CHARTS

THE TABLES

The Tables included in each Catalogue entry present all the dimensions that can be determined accurately based on building remains (under 'actual measurements') and those that have been reconstructed based on reliable iconographic evidence (under 'reconstructed measurements'). These dimensions appear in meters in the first column ('meters') and in Roman feet (calculated as 1 Roman foot = 0.296 m.) in the second column ('roman feet'). The third column ('ideal roman feet') represents the Roman foot measurements rounded to the nearest whole number or simple fraction, provided that the difference between the real and ideal Roman feet measurements is less than 3%. The percentage difference is listed in the fourth column ('% difference').

The fifth and sixth columns present fractional relationships based on firstly, the 'critical dimension' (defined in Chapter II 'Vitruvius on round temple design'), and secondly, the lower column diameter.

THE CHARTS

The Chart which follows the Table included in each Catalogue entry is a graphic representation of the fifth column.

The first set of Chapter-specific Charts reflects Vitruvius’ guidelines for temple design as laid out in Chapter II. After these come Charts which illustrate the fractional relationships listed in columns five and six of the Tables. The last Chart per Chapter shows the relationship between the round temples’ critical dimensions, floor space, and volumes, all of which appear as entries in the Tables. These Chapter Charts form the basis for the 'Proportional analysis' sections of Chapters IV-VII.
Chart IV.2. Roman round temples: Vitruvius on monopteral design

- PO-Monopteros
- PR-FortunaP(s)
- DE-Hermes&M
- Vitruvius

Proportional relationships:
- stair wid.: total ext.
- lcd: column hei.
- column hei.: stylobate dia.
- architrave hei.: lcd
Chart IV.3  Greek tholoi: Vitruvius on peripteral design

- CL-Philippion
- E-Tholos
- DL-Tholos, late 5th
- DL-Tholos, 560
- Vitruvius

Proportional relationships:
- cella ext.: stylobate dia.
- cella ext.: column hei.
- roof hei.: stylobate dia.
- finial dia.: capital hei.
- finial hei.: capital hei.
Chart IV.5  Greek tholoi: Vitruvius vs drum design
Chart IV.6. Greek tholoi: Vitruvius on columnar proportion

- ext. columns: TE-Rotunda, SA-Arsinoeion, OL-Philippeion, K-Aphrodite, IL-Rotunda, E-Tholos, DL-Tholos, late 6th, DL-Tholos, 580, AT-Lysicrates
- pycnostyle, systyle, eustyle, diastyle, anacostyle

- int. columns: SA-Arsinoeion, OL-Philippeion, E-Tholos, DL-Tholos, late 5th

- Linear (pycnostyle, systyle, eustyle, diastyle, anacostyle)
Chart IV.5. Roman round temples: Vitruvius on the Doric columnar order
Chart IV.11. Greek tholoi: Columnar order

In proportion to lower column dia.
Chart IV.15. Greek tholoi: Floorspace and volume
Chart IV.16. Roman round temples: Floorspace and volume

- Critical dimension (m)
- Floor space (sq m)
- Volume (cubic m)
Chart V.3. Vitruvius on the Ionic order

In proportion to lower column dia.

AT-Roma and Augustus
Vitruvius

base hei.  capital hei.
Chart VI.1. Vitruvius on monopteral design

Legend:
- Th-Apjohn/10
- Th-Inson-Helzjach
- AT-Sul's Minerva
- AT-Reljača
- AT-Hemho
- Wawios

Proportional relationship:
- 1/5
- 2/5
- 3/5
- 4/5
- 1

Categories:
- arch:width:arch:front
- lint:column:hei
- arch:heic:back
Chart VI.5. Vitruvius on Corinthian columnar order
Chart VI.7. Structural elements

In proportion to critical dimension
Chart VII.2. Vitruvius on peripteroi design
Chart VII.3.  Vitruvius vs drum design
Chart VII.4. Vitruvius on columnar proportion

- exterior columns: R-Vesta, R-Sol (Ligorio), R-Romulus, R-Dea Dia, CS-Pantheon, BA-Tyche, BA-Tyche (porch), BA-Tyche (olasters).
- interior columns: BA-Tyche

- pycnostyle, systyle, eustyle, diastyle, araeostyle

- Linear (pycnostyle, systyle, eustyle, diastyle, araeostyle)
Chart VII.5. Vitruvius on the Corinthian order
Chart VII.8.  Floor space and volume

- Critical Dimension (m)
- Critical Floorspace (sq m)
- Critical Volume (cubic m)