INTRODUCTION

If I were asked for my own view of ninth- and eighth-century trends in [Greek] architecture, I should reply that I saw none.

Architecture, as I should hope to define it, did not exist.
Hugh Plommer[1]

The forms that have no future may be discarded from the record,
for history is the record of success, not of failure:

History is dominated by the future.
Oswyn Murray[2]

The Greek temple in dressed stone, with elaborate columnar orders and sculptural decoration, appears rather suddenly in the archaeological record, at the end of the seventh century.[3] If one defines Greek architecture by the standards of the Archaic and Classical periods, one may argue, retrospectively, that architecture "did not exist" earlier in the Greek world. For the ages between the fall of the Bronze Age (BA) civilizations and the beginning of the seventh century, Greek temples in most regions were made mainly of earth, wood, and fieldstones, primitive in comparison to Archaic and Classical monuments. Yet if we look instead contextually at these temples and put aside the standards of future architecture, we can appropriately assess the architectural development of the temple.[4] Adopting this approach, this book explores the early stages of the most emblematic architectural icon of the ancient Greek world. Ultimately, it will become clear that pre-Archaic temple architecture warrants a dedicated architectural history.

Temples were central to ancient Greek societies in a number of ways. Their construction required the sustained investment of individuals and communities, and their architectural development encouraged technological progress and aesthetic experiment. The activities performed in and around them related to cult practice but also to politics and the economy. Consequently, scholars have addressed the Greek temple with different focuses, chronological scopes, and approaches in studies of architectural history but also of religion and state formation. This previous work has shed light on some aspects of early Greek temple architecture, but a holistic picture remains incomplete.

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[1] Plommer 1977, 83.

[2] Murray 1991, 23, on the developmental model dominant in the history of Classical art, which is based on a "Whig interpretation of history." Its positivist-inspired principle is that only what leads forward in the process of development deserves a place in the historical record.

[3] All dates in this book refer to BC, unless otherwise noted. However, BC will occasionally be used to avoid confusion between BC and AD.

[4] In general, Haysom 2020, 339–41 warns against a retrospective approach to the study of Greek culture.

Studies of Greek architectural history have traditionally focused on monuments from the Archaic period onward – understandably so, given the incomparably greater amount of evidence and its greater artistic sophistication. General surveys tend to treat pre-Archaic architecture briefly only to sketch out the transition from huts to monumental temples, not allowing for in-depth analysis of the early materials.[5] Studies on the columnar orders focus on pre-Archaic origins,[6] yet as they trace the forms and conventions of the canonical ornamental systems of Classical temples, they, too, explore early materials selectively. Only the elements that developed into parts of the Classical columnar orders find a place in their narratives.

A distinct line of studies initiated in the 1960s by Heinrich Drerup and developed especially by Alexander Mazarakis Ainian concentrates on the Greek architecture of the Early Iron Age (EIA, eleventh to eighth centuries), although not on temples specifically.[7] These studies systematically examine pre-Archaic architectural remains and are an essential starting point for this book. Because their scope is mostly limited to considerations of buildings' ground plans and functions, other aspects related to the third dimension of architecture are addressed only marginally, if at all. Studies in this area categorize buildings by their plans, which are treated as typological entities but not problematized in relation to design or building technique. Finally, they are not concerned with architectural developments over time.[8]

Research on temple function builds on a vibrant area of inquiry on Greek religion and cult practice that began in the 1980s with Swedish scholars at Uppsala and Stockholm and has now greatly expanded.[9] These studies consider how sacred space related to religious practice. It has become increasingly common for archaeologists who study Greek sanctuaries to examine the distribution of evidence for cult practice with a view to reconstructing how temples, altars, and their surroundings were used. As the first chapter will show, evidence of cultic activity is crucial for identifying EIA Greek temples, which otherwise have left no distinctive architectural trace.

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[5] Gruben 2001, 25–32; Hellmann 2006, 35–49. Lippolis, Livadiotti, and Rocco 2007, 31–134, provides a broader overview of the period, which includes settlement and residential architecture.

[6] Barletta 2001; Wilson Jones 2014a. Earlier studies on the columnar orders that discuss origins include Onians 1988; Hersey 1988; McEwen 1993; Rykwert 1996. Two important dissertations have focused on the origins of the Doric (Howe 1985) and its frieze (Weickenmeier 1985). Barletta 2009 remains a significant contribution in the specialist literature. For more references, see Barletta 2011, 621ff.; Wilson Jones 2014a, 221, n.18.

[7] Drerup 1969; Fagerström 1988; Mazarakis Ainian 1997. Kalpaxis 1976 focused on Greek buildings of the seventh and early sixth centuries (mostly temples) but remained limited in scope to metrological aspects. See also Mazarakis Ainian 1985; 2001; 2016; 2017a.

[8] Vink 1995, 111.

[9] Recent general works and overviews in these areas of study include Ogden 2007; Kindt 2011; Parker 2011; Eidinow and Kindt 2015; Pakkanen and Bocher 2015; Haysom 2020.

Studies of EIA architecture and studies of early Greek religion intersect with scholarship on Greek state formation. This scholarship connects the importance of temples in Greek societies to religion's centrality in polis formation and explores the significance of temples as symbols of civic identity and markers of urban organization. In this field, the physical features of architecture are relegated to the background, with temples viewed principally as indicators of broad sociopolitical processes, such as the supposed transfer of religious power from rulers to communities.

In summary, scholarship of Greek architectural history tends to have a Classic-centric focus, while examinations of pre-Archaic architecture in other areas of study are limited in scope. Important issues ranging from design and aesthetics to structure and building technique, as well as how Greek temple architecture transformed during its early stages, fall between these fields of research.[10]

Over the last three decades, our knowledge of pre-Archaic Greek architecture has advanced dramatically. Momentous findings such as the Toumba Building at Lefkandi and the temples at Ano Mazaraki and Nikoleika in Achaea have changed our understanding of the dynamics involved in the early development of Greek architecture. Reexaminations of known evidence and new excavations at key temple sites such as the Artemision at Ephesus and the Heraion at Samos have revised chronologies and old interpretations and opened up new perspectives of inquiry. In short, significant new data and interpretations demand a critical reconsideration of the beginnings of the Greek temple.

This book presents a comprehensive, in-depth analysis of the early stages of Greek temple architecture by examining scholarship and evidence, both old and new. It focuses on pre- and proto-Archaic temple architecture (eleventh through the first half of the seventh centuries), the scarcely explored stages before Greek temple architecture crystallized around the forms and conventions that, from the sixth century onward, would become its defining features. References to these later developments occur throughout the book but do not dictate its agenda.

This study is primarily concerned with architecture but includes discussions of society, cult, and material culture to elucidate the context of architecture. It draws from the fields of research outlined in this section and from other areas of archaeological study (more or less related to buildings) that can shed light on aspects of architecture. For instance, as this book will show, fortifications and funerary artifacts help elucidate the local origins of Greek stone architecture, while ancient ship construction provides insights into roof carpentry. In taking a holistic approach, this book brings together the pieces of evidence to present a more complete picture of what we can currently comprehend about the temple's early development. It serves as a bridge between different scholarly approaches and chronological points of reference.

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[10] See similar comment in Morgan in press, with a different emphasis.

THE ORIGINS OF GREEK TEMPLE ARCHITECTURE

The quest for the origins of the Greek temple generated as much interest in antiquity as it does today. The Greeks idealized the early history of major temples and sometimes assigned the gods an active role in their inception.[11] Pindar recounts that the second Temple of Apollo at Delphi, made of beeswax and feathers, was sent to the Hyperboreans by Apollo himself. The third temple, made of bronze, was the work of Hephaestus and Athena. For the fourth temple, Apollo laid the foundations, with mortal men completing the work in stone.[12]

The narrative of the evolution of the Greek temple as it progressed from perishable to permanent materials enjoyed a long popularity. Writing after 30 BC, Vitruvius took up the subject in his account of the origins of architecture in caves and huts of interwoven twigs (2.1.2–7). After a long hiatus, the narrative became popular again in architectural studies from the seventeenth to the first half of the twentieth century AD, in which the "primitive hut" often features as the first stage of a process that leads to the Classical temple.[13] The theme in this narrative is that temples developed "naturally" toward the monumental. Subsequent archaeological excavations have indeed amply confirmed that architecture began with perishable materials, but this evidence tells us little about how and why Greek temples came into existence and eventually became monumental.[14]

Beginning from the second half of the nineteenth century, archaeologists embraced a less speculative and more evidence-based approach. Several models have since been proposed to account for the appearance of Greek temples.[15] The "megaron to temple" and the "ruler's dwelling to temple" models, for example, identify a line of development from local pre- or proto-historical antecedents to eighth-century temples. By contrast, the "temple as a shelter for the cult statue" model sees the temple as one of many Orient-inspired phenomena that influenced Greek culture between the eighth and seventh centuries, a period often called Orientalizing.[16]

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[11] Similarly, the gods' involvement in temple building is a topos in ancient Near Eastern texts (Hundley 2013, 79).

[12] Sourvinou-Inwood 1979; Rutherford 2001, 216–32; Marconi 2009, 9ff.

[13] Wilson Jones 2014a, 3–4, 65–6; Drew Armstrong 2016, 488–90.

[14] See also Potts 2015, 102.

[15] For brief overviews of these theories, see Vink 1995, 95–7; Svenson-Evers 1997; Prent 2007.

The "megaron to temple" model was first proposed in the final decades of the nineteenth century, after the first archaeological explorations of the Mycenaean palaces at Tiryns and Mycenae. With no known EIA temples or, more generally, monumental buildings, scholars saw in the main audience hall of the Mycenaean palace a possible antecedent for the Archaic temple.[17] They named this hall "megaron" after the Homeric descriptions of the homes of Achaean rulers (who were supposedly the Mycenaeans themselves). One connection seemed evident: the megaron's elongated rectangular plan, with access on the longitudinal axis and a front portico in antis, which is formally similar to the cella of later Greek temples. Some scholars further hypothesized that rituals performed around the megaron's monumental hearth may have survived into the temple.[18] Indeed, eighth-century temples with a central hearth (on Crete) have been known since the first half of the twentieth century AD.[19]

Although some relatively recent studies have retained the "megaron to temple" model,[20] it does not align with the complexity of current knowledge. In terms of form, the axial plan (that is, the elongated plan with access on the longitudinal axis) is now known to be a type used in all periods within and outside the Greek world. It is not exclusive to Mycenaean palatial architecture.[21] Furthermore, unlike later temples, the megaron was not freestanding.[22] Finally, there is no evidence of a megaron being directly transformed into a temple, as had once been supposed, for example, at Tiryns or Eleusis.[23]

In the second half of the twentieth century, evidence of EIA Greek architecture prompted scholars to look more closely into the period immediately preceding the appearance of Archaic temples. As a result, variations of the "megaron to temple" model emerged with a focus on function. Scholars proposed that rituals similar to those officiated at the megaron's hearth continued in certain EIA buildings and then later transferred into temples. Heinrich Drerup, for example, identified EIA buildings with interior hearth-altars as sites of banquets associated with the rituals of select social groups, or "dining communities" consisting of leaders and their arms-bearing followers. Later temples with central hearths, he claimed, inherited both their physical features (interior hearth, axial plan, and modest scale) and their function from these buildings. At sites where cultic activity occurred in the open for large numbers of participants, this ritual practice would later take place in front of temples.[24]

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[16] For the meaning of "Orientalizing" and criticism of its use, see Riva and Vella 2006; Étienne 2017, 13.

[17] P&C VII, 350–1; Gardner 1901, 303–4; Nilsson 1925, 25. See overviews in Wilson Jones 2014a, 35, n.8; Hellmann 2006, 36–43; Østby 2006, 10–19.

[18] Guarducci 1937, 161–3.

[19] Marinatos 1936, 239ff.

[20] Gruben 2001.

[21] Hellmann 2006, 36.

[22] Wilson Jones 2014a, 36.

[23] For Tiryns and Eleusis, see Chapter 1, section "Sacred Space after the Late Bronze Age."

Several scholars have suggested that the EIA buildings in question should be identified as the dwellings of local rulers, who occasionally hosted ritual banquets for small parties.[25] After the collapse of the central Mycenaean authorities around 1200, their former local emissaries (*basileis*, or *qa-si-re-we* in Linear B, the Mycenaean script) would have taken on the religious duties of the Mycenaean king (*wa-na-ka*), which had formerly been performed in the megaron around the central hearth.[26] After Moses Finley reassigned the Homeric world to the EIA, passages from the *Iliad* and *Odyssey* seemed to corroborate the idea that *basileis* took on a priestly role.[27]

The idea that Greek temples originated from elite dwellings, physically or functionally, is an old one. In the first decades of the twentieth century, Konstantinos Rhomaios suggested that the so-called Megaron B at Thermos in Aetolia, which he interpreted as a proto-historical ruler's dwelling, had in time developed into a temple.[28] A similar sequence of development has since been proposed for other sites. According to Ioannis Travlos, for example, the Late Helladic Megaron B at Eleusis was an aristocratic house that in the eighth century came to be used solely as a cult building.[29]

Alexander Mazarakis Ainian refined and expanded these ideas into a general model of development. Lacking evidence of cult spaces in Greek settlements before the eighth century, Mazarakis Ainian proposed that settlements in this period may not have had independent cult buildings. Rather, select groups celebrated the most important indoor cult rituals inside local rulers' dwellings. In his view, the rise of monumental temples in the eighth century – sometimes near or even on top of the rulers' dwellings – reflected the transfer of religious power to the community of the nascent polis and marked a critical step in the articulation of sacred and profane space within settlements.[30] Thus, the "ruler's dwelling to temple" model puts the appearance of temples into the sociopolitical framework of polis formation. Still widely cited in current scholarship, the "ruler's dwelling to temple" model and its limitations will be discussed in detail in the first chapter.

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[24] Drerup 1964, 199–204; 1969, 123–8; followed by Snodgrass 1971, 408; 1980, 61–2.

[25] Drerup 1969, 127; Snodgrass 1980, 61–2.

[26] On the religious role of *basileis*, see Carlier 1984, 162–5; Mazarakis Ainian 1997, 375–96. For the Mycenaean king's role in palace cult, see Wright 1994, 58. For a revision of the "wanax to basileus" model, see Crielaard 2011.

[27] Finley 1954.

[28] Rhomaios 1915; see also Weickert 1929 (review of literature in Papapostolou 2012, 39–45).

[29] Travlos 1970, 60.

[30] Mazarakis Ainian 1997, especially 369–72, 393–6. For a review of the development of Mazarakis Ainian's thesis after 1997, see Verdan 2013, 188–9 and 194–7.

Scholars who look to the Near East for the origins of the temple adopt a retrospective approach. Focusing on what they regard as the defining features of the Classical Greek temple, these scholars trace temple origins to earlier Levantine sources. Foremost among these features is the embodiment of the deity in a unique effigy of special cultic significance – the cult image. Martin Nilsson and William Bell Dinsmoor were among the first to posit that the Greek temple was intended to shelter a cult statue.[31] Following this view, in more abstract terms, many scholars have argued that the Greeks conceptualized the temple as the dwelling of the deity. The concept of the temple as the house of the deity is attested from early times in the Near East. From Egypt to Mesopotamia, "temple" and "house" were expressed with the same word, and temples were typically structured around an inner shrine that sheltered a cult effigy.[32] During the eighth century, the Near Eastern concept of the temple as the deity's dwelling place would have permeated Greek culture. As Walter Burkert emphasized, the Greek word for temple, *naos*, relates to *naein*, to dwell.[33]

The "temple as a shelter for the cult statue" model has had wide-ranging influence.[34] The scant evidence for cult statues in early temples is a point of contention but the lack of evidence is not proof that cult statues did not exist, especially since they could have been made of perishable materials.[35] At any rate, while some scholars have accepted this model *tout court*, others have proposed a more nuanced picture that reconciles it with other models.[36] Burkert, for example, acknowledges that even in later times a Greek temple could shelter many things other than a cult statue. He identifies two lines of development: a local line, rooted in the BA and filtered through the hearth halls of the EIA, and foreign stimuli, resulting in monumental temples sheltering gods' effigies.[37]

Another defining feature of the Classical Greek temple is its relationship with an exterior altar, which was set in front of, and usually on axis with the temple. The exterior altar is also widely documented in the Near East from the BA onward and is particularly characteristic of Syro-Palestinian sanctuaries. Burkert hypothesized that in the eighth century this peculiar spatial organization came to Greece through Cyprus, where it had been established in the twelfth century from Syro-Palestinian models.[38] Chapters 1 and 2, which deal with cult buildings from the EIA and the eighth century, respectively, will reexamine the appearance of the exterior altar and other features traditionally associated with Near Eastern influence.

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[31] Nilsson 1927, 72; Dinsmoor 1950, 40. See the overview of the literature in Miller 1995, 11ff.

[32] Burkert 1985, 88–92; Hundley 2013.

[33] Burkert 1988, 28–9; for terminology, see the next section.

[34] Zinserling 1971, 293; Kopcke 1992, 111–12; Elsner 1996; West 1997, 37; Scheer 2000; Steiner 2001.

[35] Vink 1995, 96.

[36] Gruben (2001, 29–31) recognized two lines of development, one leading to the temple as a shelter for the cult image, the other leading to the temple as a venue for the ritual banquet, a function presumably inherited from the Mycenaean megaron.

[37] Burkert 1985, 88–9, 91; 1988, 37.

WHAT IS A GREEK TEMPLE? A WORKING DEFINITION

Naos, the ancient term that the Greeks most commonly used for "temple," can shed only limited light on how the Greeks conceptualized their temples. The term is first found in the Homeric poems, where it is used consistently to designate built structures dedicated to a deity (Athena or Apollo).[39] In one case (*Iliad* 6.90–5, 269–311), the *naos* of Athena shelters her cult statue: Helenus, the son of King Priam, entrusts his mother Hecuba with placing a gift "on the knees of Athena" in the goddess's *naos*. Scholars now date the Homeric epics to the eighth or seventh century.[40] While these texts recorded previous oral traditions and contained idealized echoes of a remote past, they offer little help in defining the temple in earlier centuries.

After Homer, *naos* remained a favorite word for "temple" (or its main interior space, which the Romans called *cella*), although in the Classical and Hellenistic periods other words were also used, such as *oikos*, *domos*, and *doma*.[41] In some sources, *naos* was a synonym for *hieron* (which more commonly designated the sanctuary) or *thesauros* (which usually designated a store for votives, or treasury). In others, *naos* could refer to any building in a sanctuary, without distinction as to its function.[42] Ancient usage of these words was often relatively fluid and cannot help us arrive at the Greeks' own concept of the temple or how it changed over time.

Modern definitions of the temple that focus on a single feature, such as the prominent placement of a cult statue in the temple's interior, are limited in scope. They confine our understanding of the temple to one of its historical or geographical expressions, excluding others more or less arbitrarily. For example, some of the earliest known Greek cult statues are found in buildings that housed sacrifices and dining rituals, but these sacrifices and rituals also took place in other earlier or contemporary buildings that do not preserve any evidence of cult statues. Excluding the latter buildings distorts our view of sacred architecture, drawing an artificial distinction between buildings that to a large extent served similar purposes for their cult communities and, in their contexts, may have been similarly conceptualized.

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[38] Burkert 1975.

[39] Casevitz 1984, 88.

[40] On the historicity of the Homeric texts, see Crielaard 1995; 2002; Raaflaub 1997; 1998; 2006; 2011a; 2011b; Mazarakis Ainian 2000; Węcowski 2011.

[41] Burkert 1988, 30. On *oikos*, see also Hellmann 1992, 156; 2000, 176.

[42] Patera 2010, 547ff.

Models of local development ("megaron to temple" and "ruler's dwelling to temple") rely on a broader definition that describes the temple as a building with a close connection to communal cult practice. Such a definition inevitably generates more ambiguity than one focused on a single feature. First, demonstrating a building's connection to cult is often challenging. It depends on the identification of cult practice through archaeological traces, which to some degree are particular to their time and place. Second, when we do find evidence of communal cult practice associated with a building, it is sometimes difficult to decide if its link to cult was significant enough for the building to be called a temple. We cannot assume that our modern idea of a cult building as separate from other spaces for sociopolitical interaction had equivalents in early Greek communities. For several communal gathering halls dating from the end of the Late Bronze Age (LBA) to the eighth century, it is difficult to determine what spectrum of social activities they may have accommodated. Therefore, the exact nature of their link with cult remains unclear.[43]

Yet an advantage to adopting a broad definition is that it permits variations in the temple's forms, functions, and meanings. As such, it allows us to appreciate the temple's different expressions in different places and times, which is one of the goals of this book. We will thus use the words "temple," "cult building," and the like to designate a prominent sanctuary building, at least partially roofed, that primarily related to ritual practices intended to interact with the divine, excluding structures for funerary cult.[44] To define the nature of each building's connection to cult practice, we shall consider a combination of factors ranging from a building's relationship with the altar (in particular, if a building featured an interior hearth-altar or how a building related to an exterior altar) to the presence of cult paraphernalia (including but not limited to cult images) and votives. Other factors, such as topographical continuity with later temples, will also be considered. For each building, we shall point out the reasons for its definition as a temple, as well as possible ambiguities.

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[43] A well-known example is the early building in the Herakleion on Thasos: the excavators identified it as a temple, but B. Bergquist (1998) considered it a dining hall. Leypold (2008, 205) views this building and the first three buildings in the sanctuary at Yria on Naxos as dining halls, denying them the label of "temples."

[44] For similarly broad definitions of "temple," see Winter 1974, 141; Potts 2015, 5; Morgan in press.

ORGANIZATION OF CONTENTS

This book explores the origins and early development of Greek temple architecture from the beginning of the EIA through the first half of the seventh century. It constructs a chronological narrative, but within each period it adopts a thematic approach, which results in some overlap in the chronologies of Chapters 2 and 3.

General narratives of Greek architecture begin the temple's history with the eighth century. Until the 1970s, few traces of cult activity were known from the eleventh through the ninth centuries, a period that appeared "dark" in many respects. Subsequent research has shown that these centuries were vital to the development of Greek culture. Therefore, Chapter 1 addresses this period, in which temples did exist, including some temples that survived the transition from the LBA to the EIA and well beyond. This first chapter shows that in the Greek temple's formative stages, legacies from the BA were just as important as newer influences. Focusing on four case studies of sites where temples existed throughout the EIA, it poses questions of the function and significance of the temple, both in cult rituals and in broader EIA society.

Chapter 2 addresses developments in Greek temple architecture between the eighth and the mid-seventh centuries, when temples were built across the Greek world, some of them very large with imposing new features. The first part reviews theories of the temple's role and importance in state formation. The second part examines changes in temple function from the EIA, addressing whether the temple's rapid diffusion was an effect of its changing purpose and meaning in cult. Rather than one common trend, these two parts indicate a variety of local trajectories in the way temples related to social organization and cult practice. The third and more extensive part of the chapter examines temple design, building technique, and aesthetics. These aspects have been treated superficially in previous scholarship, usually with a descriptive approach.[45] Because the general focus of Greek architectural studies remains on the stone architecture that flourished from the later Archaic period onward, architecture in perishable materials has received relatively scarce attention. The rationales for its design and construction remain mostly unexplored. This part of the chapter problematizes architectural development by examining overlapping relationships among design, construction, and aesthetics while asking questions of purpose and meaning. It elucidates aspects of design in relation to construction, explores the social and economic contexts of perishable construction and periodic reconstruction, and identifies the first signs of changing attitudes in building, which anticipate the subsequent adoption of durable materials. Finally, the chapter addresses the aesthetics of early Greek temples by broadening the discourse beyond the columnar orders. In doing so, it emphasizes the visual importance of the roof, a factor that is critical for understanding the transformative effect of subsequent tiled roofs on temple aesthetics.

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[45] An exemplary exception is J. J. Coulton's (1993) architectural examination of the Toumba Building at Lefkandi.

Chapter 3 investigates the beginnings of Greek ashlar masonry and terracotta roof systems in the temples of Ionia and the northern Peloponnese (Olympia and the Corinthia) in the first half of the seventh century. Research in the last three decades has shed light on individual topics more or less directly related to the advent of permanent construction. Besides early roof tile systems, these topics include Greek fortifications and Corinthian funerary stonework. The chapter brings them together to explore the material culture in which permanent construction methods developed. It examines the precursors of ashlar and roof tiles, reconstructs their production processes, and reflects on their origins, as well as the purposes and effects of their adoption. Finally, it emphasizes the transformative but underexplored impact of roof tiles on the aesthetics of the temple. Chapter 4 highlights the significance of this book's findings for studies of Greek architecture and points to opportunities for future research.